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ESW Drought Plan 2027 Strategic Environmental Assessment (SEA) Environmental Report

April 2026

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NON-TECHNICAL SUMMARY

This section presents the Non-Technical Summary (NTS) of the Strategic Environmental Assessment. The NTS is a statutory requirement under the Strategic Environmental Assessment (SEA) Regulations and is often published as a standalone document to improve accessibility; however, it is included here to clearly distinguish it from the main Environmental Report below.

Overview

We (Northumbrian Water Group (NWG)) are required to prepare and update statutory Drought Plans for each of our supply areas under Section 39B of the Water Industry Act 1991, as amended by the Water Act 2003. This document focuses on the Essex & Suffolk Water (ESW) supply area.

The purpose of the ESW Drought Plan 2027 is to provide a comprehensive statement of the drought actions we would consider implementing during drought conditions to safeguard essential water supplies and minimise environmental impacts within our supply areas. The plan aligns with our Water Resources Management Plan (WRMP), which sets out our strategic approach to maintaining a supply–demand balance over a 25-year planning period.

As required under the SEA Regulations, a SEA has been undertaken for our Drought Plan. This NTS, alongside the main Environment Report below, presents the outcome of that process. Assessment has been informed by a Habitats Regulations Assessment (HRA) and a Water Framework Directive (WFD) assessment, both undertaken in parallel, as well as the Denver Hands-Off Flow (HoF) and Coldfair Green drought actions Environmental Assessment Reports (EARs).

The SEA Process

Our SEA Scoping Report[1] was published for consultation on 15 October 2025. Statutory Consultees were invited to express their views on our Scoping Report and the scope of the SEA proposed in accordance with Regulation 12(5) of the SEA Regulations. Responses received through this consultation have been considered in preparation of our Environmental Report.

The SEA process informs decision-making by identifying and assessing the likely significant and cumulative environmental effects of a plan or programme. It is undertaken at a strategic level and includes consultation with a wide range of stakeholders on the potential effects of the plan.

The purpose of the SEA Environmental Report is to review the feasible drought actions within our Drought Plan and reasonable alternatives, to identify any potential effects

[1] Northumbrian Water (2025) SEA Scoping Consultation. Available at: https://www.nwg.co.uk/sea-scoping-assessment [Accessed February 2026].

(beneficial and adverse). This has been enabled through the following Environmental Assessment process:

- A high-level environmental screening assessment
- Options-level assessments, including:
  - SEA, supported by EARs for Denver HoF and Coldfair Green drought actions
  - HRA
  - WFD
- Programme appraisal, including cumulative and in-combination effects for SEA, HRA, WFD and Invasive Non-Native Species (INNS).

Assessment Methodology

The environmental assessment of potential and identified drought actions has been carried out using an 'objectives-led' approach, a widely recognised method for evaluating environmental effects and comparing alternative actions. The SEA objectives were derived from relevant policies, plans and programmes, baseline environmental conditions, and key issues within the supply areas and catchments. Consideration was also given to future trends such as climate change, population growth and increasing pressure on water resources.

The SEA assessment objectives for our Drought Plan were developed to align with those used in the WRMP24 SEA and were reviewed for relevance to our Drought Plan. Objectives considered as part of the WRMP24 SEA but scoped out for the Drought Plan are provided in our SEA Scoping Report[2], together with the justification to why they were scoped out.

The Drought Plan SEA objectives and accompanying assessment questions provided a consistent, evidence-based framework for the appraisal of each drought action. The assessment was informed by findings of the HRA, WFD assessments, Natural England's Impact Risk Zones (IRZs) for Sites of Special Scientific Interest (SSSIs) and relevant EARs. The spatial scope of the SEA reflects the extent of the Drought Plan and its potential zones of influence, encompassing the ESW supply area, relevant operational catchments and the wider Water Resources East regional context where the use of broader-scale data is appropriate.

Primary Assessment

The appraisal framework was used to assess how each individual or group of our proposed drought actions, and any alternatives, perform against the SEA objectives, with the results informing the selection and phasing of actions within the Drought Plan. The framework comprised SEA topics and objectives supported by indicator questions and assumed the implementation of standard best practice (referred to as embedded mitigation in our appraisal) in delivering drought actions, including any defined monitoring measures, so that the assessment reflects residual effects in line with current SEA guidance. Effects

[2] Northumbrian Water (2025) SEA Scoping Consultation. Available at: https://www.nwg.co.uk/sea-scoping-assessment [Accessed February 2026].

were evaluated by considering their magnitude, duration, certainty and permanence, consistent with the SEA Regulations, with durations defined as short, medium or long-term and professional judgement applied where effects varied by receptor. The value/sensitivity of affected receptors was also assessed, and residual effects were characterised qualitatively based on a qualitative six-point scale to describe the significance of effects. The colour coding represents a range from major adverse effect in dark red through to major beneficial effects in dark green, as shown in Table NTS 1, with definitions consistent with those applied in the WRMP24 SEA, to ensure transparency and consistency in Drought Plan decision-making.

Table NTS 1 Categorisation of significance of effects.

Assessment Scale	Significance of Effect	Significance Classification
+++	Major Beneficial	Considered potentially significant
++	Moderate Beneficial	Considered potentially significant
+	Minor Beneficial	Not significant
0	Neutral	Not significant
-	Minor Adverse	Not significant
--	Moderate Adverse	Considered potentially significant
---	Major Adverse	Considered potentially significant
?	Uncertain	Not significant

Secondary, Cumulative and Synergistic Environmental Effects

The assessment of the secondary, cumulative and synergistic effects was based on Schedule 2(6) of the SEA Regulations. Cumulative, or in-combination, assessment has been undertaken which has involved examining the likely significant effects of each of the drought actions in combination with each other and in combination with the implementation of other relevant plans and programmes.

Our SEA included the following cumulative assessments:

- Simultaneous implementation of drought actions
- Interaction with other water company Drought Plans
- Interaction with other water company WRMPs and Drainage and Wastewater Management Plans (DWMPs)
- Evaluation of cumulative effects with the Water Resources East Regional Plan
- Assessment of cumulative effects with Strategic Resource Options (SROs) schemes
- Interaction with broader programmes and projects.

Limitations of the Assessment

SEA is a plan-level assessment intended to highlight potential environmental concerns on a strategic scale. Where specific limitations or outstanding issues are identified, we describe these in the SEA appraisal tables for the relevant drought action.

Linked Environmental Assessments

HRA, WFD assessment and EARs have been undertaken to inform the development of our Drought Plan. These assessments provide detailed understanding of the potential effects of our drought actions on designated European Sites, including any associated compensatory habitat, and identify any potential risks to WFD water bodies. The findings have been incorporated into the Drought Plan to demonstrate compliance with WFD Regulations and alignment with River Basin Management Plans (RBMPs) objectives.

In addition, drought actions have been screened for the risk of spreading INNS, and where applicable, appropriate mitigation measures have been identified, together with consideration of any potential habitat loss or changes in river condition. As all drought actions are temporary and do not require construction or permanent operational land, a Biodiversity Net Gain assessment has not been undertaken.

Drought Actions

In the event of a drought, we would be required to implement a range of drought actions to ensure the continued provision of essential water supplies to all customers. Our drought actions fall into two broad categories:

1. Demand-side actions - actions to reduce demand (e.g. Temporary Use Bans (TUBs) and Non-Essential Use Bans (NEUBs))
2. Supply-side actions – actions to maintain supply (actions to temporarily increase water available for supply including but not limited to actions requiring drought orders or permits).

These drought actions are aligned with drought severity Levels 1 to 3, with Level 0 (business as usual) included for completeness. Actions introduced at a given drought level will continue to operate when subsequent levels are implemented, unless they are no longer required or are superseded by more stringent measures:

- Level 0 actions are those which can be described as ‘business as usual’ and refer to normal operational actions.
- Level 1 actions are those we would consider implementing during prolonged dry weather and are assessed as having minor environmental impacts.
- Level 2 actions are those we would consider during a drought, also with generally minor environmental impacts.
- Level 3a actions are those we would consider during a more severe drought and may have moderate to major environmental impacts.
- Level 3b actions are those that could be implemented in a severe drought after Level 3a restrictions such as non-essential use bans have been implemented.

We would expect Level 4 emergency actions fall under our Emergency Plan and are therefore excluded from our Drought Plan.

Demand-side drought actions

During a drought, water companies may be granted powers to impose TUBs to reduce demand and conserve essential water supplies. These restrictions help maintain resources for later stages of a drought and mitigate environmental impacts from abstraction. The Water Use (Temporary Bans) Order 2010 outlines the specific uses, exceptions, and conditions for TUBs. If drought conditions worsen, companies can apply for NEUBs, which extend restrictions to certain commercial activities. A summary of the demand-side drought actions is included in Table NTS 2.

Table NTS 2 Demand side drought actions

Drought level	Drought severity	Demand-side actions
0	Business as usual	Network optimisation to reduce output of Water Treatment Works (WTWs) which are supplied by a stressed water resource Customer communications As per our WRMP24 demand management selected options: ▪ Leakage detection and repair suite of options ▪ Water efficiency activity (non-household and household) ▪ Smart metering installations ▪ Government led interventions[3]
1	Prolonged dry weather	Appeal for Restraint: ▪ Enhanced dry weather messaging ▪ Additional resource for find & fix leakage teams ▪ Encourage reporting of leaks ▪ Stop proactive flushing ▪ Optimising water supply and network to reduce output of WTWs which are supplied by a stressed water resource, as well as increased control over potable water storage levels ▪ High water use alerts to customers ▪ Water saving calculator promotion ▪ Target 15m head at the critical point in each pressure managed area
2	Drought	TUBs: ▪ Further additional resource to find & fix leaks ▪ Offer to repair the highest volume customer-side leaks ▪ Challenge illegal use ▪ Water Efficiency Home Audits to targeted areas ▪ Education workshops - community and schools ▪ Community outreach & business funding ▪ Tourism support
3a		NEUBs: ▪ Minimise WTWs outflows at all water stressed sourced WTWs and maximise elsewhere

[3] Government led interventions are drought actions that cannot be implemented by us alone; they require government approval, usually from the Secretary of State (Defra), and are regulated by the Environment Agency.

Drought level	Drought severity	Demand-side actions
		▪ Manage the network to use potable water stored as resilience for changeable demands, managing our network storage levels at low levels, increasing risk of maintaining supply to customers ▪ Hard hitting communications ▪ Target 10m head at the critical point in each pressure managed area ▪ Installation of flow regulators to households ▪ Shower device offering ▪ Flow restrictors to non-households
3b	Severe drought (extreme)	Reduce Ships Watering Removal of Statutory Exceptions on TUBs and NEUBs Manage Strategic Operational Plan (SOP) storage to low-low alarm levels, increasing risk of maintaining supply to customers Seasonal Tariffs for smart metered customers

Supply-side drought actions

Supply-side drought actions relate to measures that can temporarily increase the amount of water available for supply. We have considered a range of potential supply-side drought actions in developing our Drought Plan, including those that do not require a Drought Permit or Drought Order. A summary of the supply-side drought actions is included in Table NTS 3 and Table NTS 4.

Table NTS 3 Supply side drought actions

Drought Stage	Drought Level	Supply-side drought actions
Normal	Level 0	Raw water and WTWs optimisation
		Coordination planning to minimise planned outage
		Operation of the Ely Ouse to Essex Transfer Scheme (EOETS)
		Operation of the Langford Recycling Plant
		Operation of the Waveney Augmentation Groundwater Scheme (WAGS)
Prolonged dry weather	Level 1	Operation of the Stour Augmentation Groundwater Scheme (SAGS)
		Operation of the Great Ouse Groundwater Scheme (GOGS)
		Road tankering potable water from Carlton Colville Pumping Station to Bedingfield and Eye
Drought	Level 3a	Bulk raw water transfer from Thames Water to Chigwell WTW
Severe drought	Level 3b	Emergency treated water transfer from Anglian Water

Table NTS 4 Supply side drought permit/order actions

Drought Stage	Drought Level	Supply side drought permit/order actions
Drought	Level 2	Denver abstraction licence HoF Variations
Severe drought	Level 3b	Coldfair Green groundwater abstraction

SEA Scoping Stage Results

The scoping stage of the SEA process establishes the context and scope for the SEA and the Environment Report. We issued the Scoping Report to the Statutory Consultees (the Environment Agency, Historic England and Natural England) on 15 October 2025, and the consultation period ran until 18 November 2025. The statutory consultees were invited to comment on the report and on the proposed scope of the SEA. All consultation responses received were reviewed and considered, as appropriate, in the Environment Report. Appendix B of the Environment Report provides the Scoping Report responses.

Through the scoping process, we identified the relevant plans and programmes at international, national, regional and local levels, as well as their implications for the SEA and our Drought Plan. Based on comments received from the statutory consultees, the list of relevant plans and programmes was revised and is included in the Environment Report.

The scoping process also established the environmental, social, and economic baseline context for the SEA and identified the key environmental and sustainability challenges and opportunities. The SEA objectives for our Drought Plan were developed during the scoping process and are presented in Table NTS 5 below.

Table NTS 5 SEA objectives

SEA topic	SEA objectives
Biodiversity, Flora and Fauna	To protect and enhance biodiversity, ecological functions, capacity and habitat connectivity, including protecting designated sites and their qualifying features, priority species and priority habitats.
	To provide opportunities for habitat creation or restoration.
	To avoid introducing or spreading and, where feasible, manage INNS.
	To meet WFD objectives relating to biodiversity targets and conservation objectives of designated sites.
Water	To maintain the quality of surface and groundwater water bodies including to meet WFD objectives related to the water chemistry and objectives of groundwater dependent sites.
	To maintain surface and groundwater flows and quantity.
	To meet WFD objectives and support the achievement of environmental objectives set out in RBMPs.
	To increase water efficiency and increase resilience of water supplies and natural systems to droughts.
Soil	To protect geological and geomorphological features, and the functionality and quality of soils, including the protection of high-grade agricultural land.
Air	To reduce and minimise air emissions during operation.

SEA topic	SEA objectives
Climatic factors	To minimise or reduce embodied and operational carbon and other greenhouse gas emissions.
	To introduce climate mitigation where required and improve the climate resilience of assets and natural systems to the threats of climate change.
Population and human health	To maintain the health and wellbeing of the local community, including economic and social wellbeing.
	To secure resilient, high quality, sustainable and affordable water supplies over the long term for the health and wellbeing of the community.
	To connect customers to the natural environment, provide education or information resources for the public.
	To maintain the water environment for other users including recreation, tourism and navigation.
Historic environment	To conserve and protect the historic environment and heritage assets, and their settings, including archaeologically important sites.
Landscape	To conserve and protect landscape and townscape character, and visual amenity.
Material assets	To reduce, and make more efficient, the consumption of resources, and minimise the generation of waste.
	Avoid adverse effects on built assets and infrastructure

Assessment of Drought Plan Actions

SEA regulations require an environmental report on a proposed plan or programme to identify, describe and evaluate the likely significant effects of implementing reasonable alternatives as well as for the proposed plan or programme.

Consideration of Alternatives

Drought Plans are operational tactical plans with a range of drought actions designed to be implemented to address specific conditions arising during a particular drought event. Each event is unique in severity, timing, area affected, and duration. These factors require different responses in terms of the drought actions to be implemented, and the sequence combinations of actions to be applied.

During the Drought Plan development, a wide range of possible drought actions were developed to provide the unconstrained list (long list) of 80 demand-side and 29 supply-side actions. These were then screened to remove drought actions considered unlikely to meet drought needs or clearly likely to be unacceptable with potential for significant environmental effects that would be difficult to mitigate. This process resulted in the constrained list (short list) of 58 demand-side and 11 supply-side actions, which were considered further against a range of technical and environmental criteria, to identify the Drought Plan drought actions that encompass a range of action types and that cover the different levels of drought severity required to be addressed in a Drought Plan.

In addition, alternatives were compared as part of the EARs for the drought actions that require a drought permit/order with a preferred action selected to take forward. These

alternatives and assessments are presented in the EARs, providing the reasoning for action selection.

Assessment of drought actions against SEA objectives

Appraisal framework assessment tables have been completed for individual or grouped drought actions and are presented in full in Appendix F of the Environment Report.

Demand-side actions assessment findings

Overall, demand-side actions reduce pressure on water resources by lowering consumption or system losses. This helps to maintain river flows, protect sensitive habitats and strengthen ecological resilience during drought conditions. Effects across these actions are generally neutral, with no significant adverse effects. Minor short-term adverse effects identified include:

- localised disturbance to soils due to reduced soil moisture during prolonged dry periods, along with temporary noise and traffic-related disruption (leakage detection and repair actions only)
- reduced system buffer capacity and resilience when operating at low storage levels, increasing the risk of supply disruption during drought conditions (network management actions only)
- operational constraints associated with operating at low storage levels and the limited turndown capability of some legacy plants, resulting in minor adverse effects on infrastructure resilience (minimum flows at WTWs and network management actions only)
- vehicle related emissions (leakage detection and repair and community education actions only)
- likely inconvenience for some affected customer groups associated with certain actions.

These adverse effects are limited and are outweighed by the environmental and supply-security benefits delivered through reduced abstraction and more efficient water use. Many demand-side actions can also improve operational efficiency and encourage long-term behavioural change, further enhancing drought and climate resilience. Government-led drought interventions are the only actions with the potential to deliver significant beneficial effects for water-environment objectives. In addition, government-led drought interventions and community education actions can deliver beneficial outcomes for population health and wellbeing.

Supply-side actions assessment findings

Overall, supply-side actions are not anticipated to result in significant adverse effects on water quality, biodiversity and WFD objectives, as they primarily involve the redistribution of abstractions, targeted flow supplementation and reducing pressure on sensitive water bodies during drought conditions. These actions operate largely within existing infrastructure and licensing constraints and generally result in neutral environmental

effects, with no significant effects. The only exception is the EOETS action, which has the potential to deliver significant beneficial effects due to its regional scale.

Minor adverse effects associated with supply-side actions are typically limited to traffic emissions, temporary localised hydraulic or water-quality changes, or small increases in operational energy use. Most actions provide minor beneficial effects such as enhanced drought and climate resilience, protection of designated sites, support for reliable public supply and improved resource efficiency.

The Coldfair Green drought action was assessed as having a number of minor adverse effects against SEA objectives, relating to short-term changes to flows, water levels, water quality and some wetland and riparian habitats. However, these effects are temporary and do not lead to deterioration in WFD status, and are outweighed by the action's benefits, particularly in strengthening drought resilience and maintaining reliable public water supplies. Recovery of the Hundred River system is expected once the drought action ends, as groundwater levels and river flows return to normal ranges following seasonal recharge, consistent with observations from the 2022–23 drought. Hydraulic and water quality changes remain within existing WFD class boundaries and are predicted to return to baseline post drought. Biodiversity effects on wetland and riparian habitats are localised, short term and reversible, with habitats expected to recover within one to two hydrological seasons, once flows normalise. Post drought monitoring in the Environmental Monitoring Plan will confirm recovery of flows, water quality and ecological conditions.

Findings from Linked Environmental Assessments

Habitats Regulations Assessment

Our Stage 1 HRA screening for the Drought Plan 2027 confirms that all demand-side actions can be screened out for Likely Significant Effects, as none provide pathways for impacts on any European Sites. Among the supply-side actions, tankering in Hartismere has no hydrological link to designated sites, while Coldfair Green has a theoretical pathway via the Hundred River; however, predicted flow changes are ecologically negligible and do not affect site integrity. At Denver, although several European Sites are hydrologically connected, modelling shows that changes in freshwater inflow and hydrodynamics are <0.06% and insignificant within these tidal-dominated systems. On this basis, Likely Significant Effects were ruled out for all European Sites within the hydrological zones of influence of the proposed drought actions.

Water Framework Directive Assessment

Our Stage 1 WFD assessment confirmed that all demand-side actions could be screened out as they do not interact with water bodies or pose risks to WFD objectives, while two supply-side actions, Coldfair Green and the Denver HoF, were identified as requiring further assessment due to potential effects on groundwater levels, river flows, ecological communities, hydromorphology and water quality. Both actions received a Stage 1 "medium" impact score, triggering the need for Stage 2 Detailed Impact Assessments to ensure compliance with WFD Regulations and RBMP objectives.

The Stage 2 assessments demonstrate that neither action will result in deterioration of WFD status or prevent the relevant water bodies from meeting their objectives. Modelling for Denver HoF shows negligible, short-term changes to flows, water levels and water quality in the Ely Ouse with no measurable downstream effects, while the ~10% abstraction increase at Coldfair Green will not alter the status of the Waveney and East Suffolk Chalk & Crag groundwater body or the Hundred River, with any biological, hydromorphological and physico-chemical effects predicted to be minor, short-term and limited to drought conditions. No designated sites are expected to experience hydrological or water-quality change, and overall, the assessments confirm that both drought actions remain fully compliant with WFD requirements and will not compromise the ability of any water body to meet its environmental objectives.

Cumulative Assessment

Cumulative effects within our Drought Plan

Drought actions would be implemented progressively, starting with measures that have the least impact on customers and the environment and escalating only as conditions worsen. Cumulative effects have been assessed on a precautionary worst-case basis, assuming that actions from different drought levels could operate concurrently.

Overall, the assessment shows that cumulative effects are predominantly neutral across all drought levels, with more minor adverse effects emerging at higher levels. Demand-side actions cumulatively reduce water demand and abstraction pressure, protecting water resources and environmentally sensitive receptors, while supply side actions improve system efficiency and resilience without spatial overlap or adverse interaction. Beneficial effects remain consistent across all drought levels, no significant cumulative effects are identified, and any minor social effects are short-term, reversible, and managed through phased implementation.

Cumulative effects with relevant Programmes, Plans and Projects

We have undertaken a cumulative effects assessment to identify the potential cumulative effects of the actions within our Drought Plan with the following plans and projects:

- Other water company Drought Plans
- WRMPs
  - Our WRMP24
  - Other water company WRMPs
- Other water company DWMPs
- Other Plans and Projects
  - Water Resource East Plan
  - Anglian RBMP
  - Nationally Significant Infrastructure Projects (NSIPs)
  - SROs.

Our HRA Screening concluded that in-combination effects of our Drought Plan with WRMP24, and with other water companies' WRMPs and Drought Plans, were not considered likely to give rise to adverse effects on European designated sites. Our Stage 2 WFD assessments for both the Denver HoF and Coldfair Green actions demonstrates that both actions are fully compliant with WFD requirements, and neither presents a pathway for significant cumulative or in-combination effects on surface or groundwater bodies.

Other water company Drought Plans

Water company Drought Plans set out a range of demand and supply-side drought actions that may be implemented during drought conditions to maintain essential water supplies, including water use restrictions and drought permits or orders to temporarily increase abstraction.

The Drought Plans of our neighbouring water companies, Anglian Water, Affinity Water, Thames Water and Cambridge Water, have been reviewed to identify the potential for cumulative effects with our Drought Plan. With the exception of Anglian Water, no interactions were identified between the demand-side or supply-side drought actions in these Drought Plans and those included in our Drought Plan.

Potential cumulative effects may arise in combination with Anglian Water's supply-side measures, particularly in relation to the EOETS, which could affect Ardleigh Reservoir (Anglian Water) and Abberton and Hanningfield Reservoirs. EOETS is included as a drought action by both companies, although it is triggered at different drought severity levels. Due to limited information currently available on Anglian Water's proposed operation of EOETS under severe drought conditions, it is not possible to assess cumulative effects in detail at this stage.

It should also be noted that neighbouring companies' 2027 Drought Plans are being prepared in parallel, this cumulative assessment will be updated as draft and final Drought Plans become available.

Water Resource Management Plans

ESW Water Resources Management Plan 2024

The SEA Environmental report of our WRMP24 has been reviewed to determine whether there are any cumulative effects between the options proposed within our WRMP24 and our Drought Plan. The WRMP24 proposes supply-side options, including, desalination, borehole abstraction, effluent re-use, reservoirs and new strategic transfers. These options proposed are closely linked to the actions set out in our Drought Plan, as well as to the plans of neighbouring water companies, given that the measures across all plans operate in-combination to provide a resilient regional water supply and safeguard essential supplies during drought conditions.

A cumulative beneficial effect is identified, as the demand-side actions in our Drought Plan complement WRMP24's broader demand-management measures, collectively reducing pressure on water resources during prolonged dry weather and enhancing benefits for water, biodiversity, population and health. Potential cumulative adverse effects may also arise where drought restrictions (e.g. hosepipe bans) coincide with WRMP24 implementation, potentially affecting customer experience and water-based recreation. These cumulative effects are most likely before longer-term supply-side schemes are fully delivered; however, no additional mitigation is required beyond that already set out in both the WRMP24 and identified in our Drought Plan assessment.

Other water company Water Resource Management Plans

Our review of neighbouring water companies' latest WRMPs found no potential for cumulative effects, as none of their proposed options interact with, or geographically overlap, the areas assessed for our Drought Plan.

Other water company Drainage and Wastewater Management Plans

We provide water supply services only and are therefore not required to prepare a DWMP. Sewerage and wastewater services within the study area are primarily managed by Anglian Water through its statutory DWMP. Our Drought Plan does not propose actions that would affect wastewater generation, sewerage capacity or drainage infrastructure and is therefore not expected to interact with or place additional pressure on Anglian Water's wastewater systems. Given the lack of regulatory overlap and the non-wastewater nature of the Drought Plan, no significant cumulative effects with Anglian Water's DWMP are anticipated.

Other Plans and Projects

Water Resources East Plan

The first Regional Water Resources Plan (WRP) for Eastern England 2025 - 2050[4] includes schemes to provide greater resilience to severe drought conditions.

The WRP supports several local, regional, and national plans and projects. The cumulative effects of options between the regions are less likely to be of an immediate proximity in nature but instead relate to potential inter-relationships along a river, within a groundwater body, or in an estuarine/marine environment. The effects are more likely to emerge from the combined operation of options, as abstractions and discharges from proposed new supply options between one, or more, plans[5].

The WRP includes schemes to provide greater resilience to severe drought conditions by ensuring that, despite significant growth in demand for water, there are sufficient water supplies reliably available to sustain essential water supplies during a severe drought that may only occur on average once in every 500 years. The supply schemes are complemented by a very substantial programme of demand management measures to reduce the scale of future growth in demand[6]. A cumulative beneficial effect is identified as the demand-side drought actions from our Drought Plan will have beneficial effects on the water environment and also in-combination with the extensive demand side management programmes included in the WRP (e.g. reducing the pressure on water resources in periods of prolonged dry weather that would enhance the positive effects for water, biodiversity, population and human health).

Anglian River Basin Management Plan

An assessment has been undertaken of the potential for cumulative effects arising from our supply and demand-side drought actions with drought measures listed in the Anglian RBMP. The Anglian RBMP describes the planned steps to implement the measures required to achieve the environmental objectives of the WFD. It provides the framework for protecting and enhancing the water environment.

The HRA for the Anglian RBMP concluded that the risk of significant in-combination effects on European sites arising from other plans is low, as the RBMP's objectives and actions are focused on improving the status of water bodies and achieving favourable conservation status for water-dependent European sites. While interactions with other strategic plans like our Drought Plan may potentially constrain the implementation of certain RBMP objectives, they may also provide opportunities to co-deliver actions (e.g.

[4] Water Resources East (2023) Regional Water Resources Plan for Eastern England (2025–2050). Available at: https://wre.org.uk/the-regional-plan/ [Accessed March 2026].
[5] Water Resources East (2023). Integrated Environmental Assessment: Non-Technical Summary Regional Water Resources Plan for Eastern England. Available at: https://wre.org.uk/wp-content/uploads/2023/12/WRE-Integrated-Environmental-Assessment-Non-Technical-Summary.pdf [Accessed February 2026].
[6] Water Resources East (2023). Regional Water Resources Plan for Eastern England - Integrated Environmental Assessment, Environmental Report. Available at: https://wre.org.uk/wp-content/uploads/2023/12/WRE-IEA-Environmental-Report_20231212.pdf [Accessed February 2026].

water demand management) that support the achievement of favourable conservation status for water-dependent European site features[7].

Nationally Significant Infrastructure Projects

A total of 73 NSIPs listed on the National Infrastructure Planning website[8] were reviewed to determine whether they fall within our Drought Plan SEA study area. Of these, 24 projects were identified as being located within the study area. These projects have been further assessed to identify any potential cumulative effects between the proposed NSIP works and the supply-side and demand-side actions set out in our Drought Plan.

Further assessment of any potential cumulative effects was undertaken for each of the London, South East and Eastern areas. Taking into consideration the location of all NSIPs and also the nature of these projects against our drought actions it can be concluded that no cumulative effects are identified in relation to the projects listed:

- A12 Chelmsford to A120 Widening Scheme
- Bramford to Twinstead
- Cambridge Waste Water Treatment Plant Relocation
- East Anglia ONE North Offshore Windfarm
- Great Yarmouth Third River Crossing
- Kings Lynn B Connection Project
- Lake Lothing Third Crossing
- Longfield Solar Farm
- Norwich Northern Distributor Road
- Palm Paper 3 CCGT Power station Kings Lynn
- Progress Power Station
- Rivenhall IWMF and Energy Centre
- Sunnica Energy Farm
- The Droves Solar Farm
- The Sizewell C Project
- White Elm Solar Farm.

[7] Environment Agency (2022). River basin management plan for the Anglian River Basin District, Habitats Regulations Assessment. Available at: https://assets.publishing.service.gov.uk/media/635242f8e90e07768c1a73a0/Anglian_river_basin_management_plan_2022_HRA.pdf [Accessed February 2026].
[8] Planning Inspectorate. Find a National Infrastructure Project. Available at: https://national-infrastructure-consenting.planninginspectorate.gov.uk/project-search [Accessed February 2026].

Strategic Resource Options

The desk study focused on the SROs proposed by neighbouring water companies and included in the updated SRO Information from RAPID Gate Two Draft Decisions[9]:

- Anglian Water has proposed two SROs within its WRMP24: the Lincolnshire Reservoir and the Fens Reservoir
- Affinity Water has proposed three SROs within its WRMP24: the Grand Union Canal Transfer, the White Horse Reservoir, and the Thames to Affinity Transfer
- Thames Water proposed three SROs[10]: the White Horse Reservoir, the London Water Recycling Schemes and Water Transfer Projects
- Cambridge Water has proposed two SROs within its WRMP24: the Fens Reservoir and the Grafham Transfer.

The assessment concluded that none of these SROs overlaps with our Drought Plan implementation period (2027–2032). Therefore, no cumulative effects are anticipated except for one SRO proposed by Thames Water, The London Water Recycling Schemes, for which a further assessment was undertaken.

The London Water Recycling Schemes comprise three solutions: Teddington Direct River Abstraction, Beckton Water Recycling, and Mogden Water Recycling[11]. Of these, only Beckton Water Recycling is located close to the boundary of our Drought Plan SEA study area. Although Beckton Water Recycling is primarily intended to improve London's water supply resilience, it may indirectly support our supply areas by contributing to a reduction in the wider regional water deficit as a result of treated used water and returned it to rivers instead of using directly surface water resources. If any cumulative effects arise during operation, with early projections indicating a potential operational date of 2031, these would likely be beneficial. The scheme could help to maintain river levels and reservoir storage during extreme droughts, thereby reducing potential reliance on emergency drought orders across the wider South East.

Mitigation Measures and Monitoring

Mitigation Measures

Mitigation has been a core element of the SEA and has directly shaped the development of our Drought Plan 2027. All SEA appraisals have been undertaken on the basis of residual effects which are those expected to remain once all mitigation measures are applied.

[9] Regulators' Alliance for Progressing Infrastructure Development (May 2023). Updated Strategic Resource Option (SRO) Information from RAPID Gate Two Draft Decisions. Available at: https://www.ofwat.gov.uk/wp-content/uploads/2023/05/Gate-2-update-for-investors-and-supply-chain.pdf [Accessed February 2026].
[10] Thames Water. About Us. Available at: https://thames-sro.co.uk/about-us/ [Accessed February 2026].
[11] Thames Water. Strategic water resource solutions. Available at: https://www.thameswater.co.uk/about-us/regulation/strategic-water-resource-solutions [Accessed February 2026].

In preparing the assessments, the SEA incorporated:

- Reasonable and best-practice (embedded) mitigation, in accordance with the UKWIR SEA Guidance[12], including operating water sources in compliance with regulatory standards
- No mitigation is proposed for abstraction licences which are issued by the Environment Agency based on an assessment of the potential impacts on the environment. These licences already contain flow constraints at low flows or conditions associated with an operating agreement. This is applicable to all supply side actions which would operate with existing abstraction licence limits which have been subject to the Environment Agency's Review of Consents process.
- Specific mitigation measures identified through EARs for drought orders and permits, as well as other relevant assessments. These informed the determination of likely residual effects

Additional mitigation measures that have been identified through the combined environmental assessment and SEA process include:

- Extensive consultation in relation to the implementation of water restrictions and bans on use
- Use of renewable or 'clean' energy sources for any actions which have high energy demands
- Consultation with affected water users (particularly in relation to other abstractors) to determine how licences are used, associated conditions and potential impacts of specific drought options
- To protect fish populations aeration of river reaches if feasible and fish rescues, as deemed appropriate
- Modifications to operating regimes of water level management or flood risk management structures, where appropriate, to help ensure that river flows are maintained
- Further consultation and liaison with the Environment Agency
- INNS risk assessment of transfers of water between catchments
- Provision of adequate treatment of effluent prior to its reintroduction to any surface water bodies
- Where archaeological remains are at risk due to water level changes measures set out in the Historic England 'Preserving Archaeological Remains' guidance (2016) should be implemented as appropriate.

[12]UKWIR (2021). Environmental Assessment Guidance for Water Resources Management Plans and Drought Plans. London: UK Water Industry Research. Available at: https://ukwir.org [Accessed February 2026].

Demand-side actions

Mitigation measures related to demand-side actions predominantly focus on TUBs. After a review of the 2022 drought demand management measures UKWIR report[13] we have introduced the following measures to maximise the effectiveness of TUBs:

- introducing TUBs early in the Spring-Summer season
- developing communication campaigns data
- supporting our customers in using water wisely through promoting our online water saving calculator and high-water use alerts for customers on a smart meter (both household and non-household).

In addition, UKWIR recommends the development of data to enable communication campaign effectiveness to be more fully evaluated. In line with this guidance, we have developed an integrated drought communications plan. This includes supporting customers in using water wisely through the promotion of our online water-saving calculator and high-water-use alerts for customers with smart meters (both household and non-household)

Supply-side actions

With the exception of Coldfair Green, no additional mitigation is required for the proposed supply-side actions beyond measures described above. For Coldfair Green, additional mitigations have been developed in accordance with the avoid–reduce–mitigate hierarchy, focusing on higher-sensitivity receptors, including fish, water quality, designated sites and INNS. These measures are primarily implemented during the drought period, with immediate triggers or regular review where required, and are supported by post-drought monitoring to confirm effectiveness. All measures are deliverable within existing operational arrangements and are secured through the Environmental Monitoring Plan.

Monitoring

Monitoring is required to track environmental effects, confirm whether impacts occur as predicted, and identify any adverse effects that may trigger the deployment of mitigation measures. Our Drought Plan sets out a suite of measures that would only be implemented if, and when, required, depending on drought conditions over the five-year lifetime of the Plan. The monitoring requirements and triggers will vary depending on the circumstances, and therefore the actual impacts of the Plan are subject to some uncertainty. Monitoring will focus on those drought actions for which moderate or greater effects have been identified in this SEA and in the associated HRA, WFD and EARs.

Demand-side actions

Monitoring of demand-side actions is focused on ensuring compliance with restrictions and verifying that water-saving initiatives are effective, especially during escalating drought

[13] UKWIR (2023) Review of the 2022 Drought demand management measured, Summary Report. Available at: https://ukwir.org/review-of-2022-drought-demand-management-measures-summary-report [Accessed March 2026]

levels. Key demand side monitoring actions are leakage detection and repair, meter data analysis, restriction compliance (TUBs/NEUBs) and water usage tracking.

Supply-side actions

As indicated in our Drought Plan, the main drought indicators which are currently monitored are: rainfall in each WRZ, soil moisture deficit in each supply area, raw water reservoir storage levels, river flows (as reported by the Environment Agency), groundwater levels and river water quality.

The environmental monitoring proposals for the Drought Plan focus on the Denver HoF and Coldfair Green abstraction drought actions. Monitoring will be undertaken before, during and after the implementation of drought actions and will focus on confirming that environmental conditions are protected and regulatory objectives are met.

For Denver HoF and Coldfair Green drought actions, monitoring requirements are set out fully in Chapter 8, including receptors, parameters, frequencies, responsible parties and reporting arrangements. For the purpose of this NTS a summary of the key monitoring considerations is provided below:

- Denver HoF: Continuous flow monitoring will be undertaken to confirm implementation of the HoF requirements and demonstrate compliance with protected rights. Routine water quality compliance and biological monitoring, delivered through existing monitoring programmes, will continue to ensure there is no deterioration in status under the WFD, while incident monitoring and reporting arrangements will capture any unforeseen events. Monitoring is structured across three distinct phases: pre-drought (baseline); in-drought (both pre and post-drought action implementation); and post-drought (recovery). The approach is deliberately minimal and proportionate, reflecting the negligible effects predicted in the environmental assessment and focusing on essential operational and regulatory compliance.
- Coldfair Green: The frequency of river flow and water quality monitoring in the Hundred River will be increased both pre-permit application and post-implementation. Targeted botanical walkovers of the North Warren reedbed will be undertaken on an ad-hoc basis during the permit's implementation, if concerns are raised. In addition to parameter-specific monitoring, routine environmental walkovers will be undertaken along the Hundred River corridor during the drought action to provide early warning of emerging issues such as fish distress and the spread of INNS. Findings from walkovers will be used to inform real-time operational decisions and the escalation of mitigation measures.

Consultation

This SEA Environmental Report, plus the separate HRA and WFD assessments, will be published alongside our draft Drought Plan for public consultation, with the consultation period running from June to August 2026. Once the consultation period closes, all responses will be reviewed and considered, and this SEA Environmental Report will be updated where appropriate to reflect these comments and any proposed changes to our Drought Plan. A revised version of the SEA Environmental Report will then be issued for the next stage of the Drought Plan process, alongside our Statement of Response.

1 INTRODUCTION

1.1 Background to the Drought Plan 2027

This Strategic Environmental Assessment (SEA) Environmental Report has been prepared in support of our Essex & Suffolk Water (ESW) Drought Plan 2027. Habitats Regulations Assessment (HRA) and a Water Framework Directive (WFD) assessment have also been carried out in parallel.

The ESW Drought Plan 2027 provides a comprehensive statement of the actions we will consider implementing during drought conditions to safeguard essential water supplies and minimise environmental impact within our supply area.

Our Drought Plan aligns with our Water Resources Management Plan 2024 (WRMP24)[14], which sets out the strategic approach to maintaining a supply-demand balance over a 25-year planning period.

SEA is a statutory requirement for plans or programmes which could have significant environmental implications and helps to identify where there are potential impacts and how any adverse impacts might be mitigated. More information about SEA, and the rationale for applying it to the ESW Drought Plan 2027, is provided in Section 1.2 below.

This Environmental Report is the second output of the SEA and has been prepared in support of our Drought Plan 2027. In October 2025, our SEA Scoping Report[15] was issued for consultation which summarised the baseline and framework that would be used for the assessment. Issues raised by consultees have been considered in preparing this Environmental Report (see Chapter 9).

This Environmental Report presents the review of relevant policies and plans (Chapter 3) and the baseline environment information (Chapter 4) that set the context for the assessment that has been carried out in accordance with the assessment methodology (Chapter 5). The consideration of alternative measures and the potential effects of our Drought Plan drought actions are described in Chapter 6, with assessment of the cumulative, or in-combination, effects between our drought actions and other activities, programmes and plans set out in Chapter 7 Information regarding mitigation and monitoring is provided in Chapter 8 and next steps in Chapter 9.

[14] Northumbrian Water (2024) Essex & Suffolk Water, Water Resources Management Plan 2024. Available at: https://www.nwg.co.uk/globalassets/wrmp/nwg/october-24/esw/esw-wrmp24-main-report_final-oct-24.pdf [Accessed February 2026].
[15] Northumbrian Water (2025) Northumbrian Water and Essex & Suffolk Water Strategic Environmental Assessment Scoping Assessment. Available at: https://www.nwg.co.uk/responsibility/environment/drought-plan/northumbrian-water-and-essex-and-suffolk-water-strategic-environmental-assessment-scoping-assessment/ [Accessed January 2026].

1.2 Application of SEA to Drought Planning

1.2.1 Overview of SEA

SEA is a statutory requirement under the European Union Directive 2001/42/EC, more commonly known as the SEA Directive. The Directive was transposed into United Kingdom (UK) law via the Environmental Assessment of Plans and Programmes Regulations 2004 ('SEA Regulations')[16] and was retained following withdrawal from the European Union. The Regulations require an assessment of the environmental effects of certain plans and programmes. Part 2, Regulation 5(2) specifies that SEA is required for plans and programmes which are prepared for water management and sets the framework for development consents.

The SEA process informs decision-making by identifying and assessing the significant and cumulative environmental effects of a plan or programme. It is undertaken at a strategic level and includes consultation with a wide range of stakeholders on the potential effects of the plan. Figure 1.1 illustrates the stages of the SEA process. The SEA for our Drought Plan is currently between Stages D and E, as presented in Appendix A.

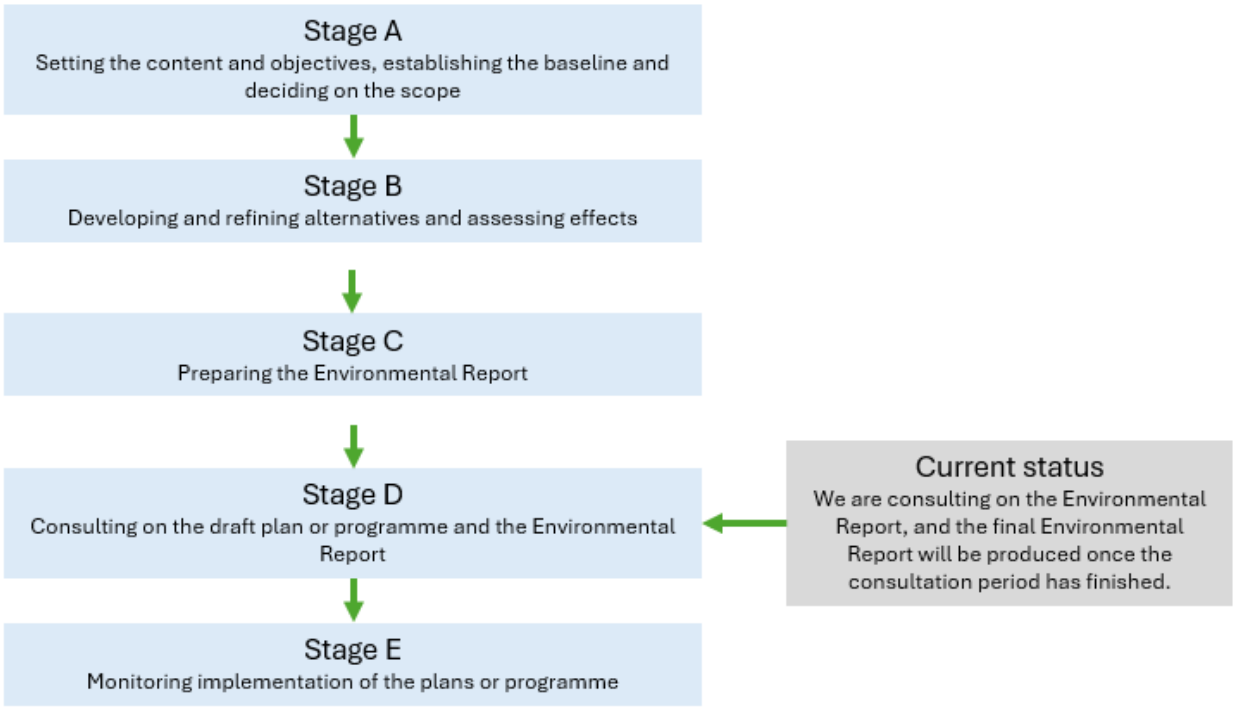

Figure 1.1 Stages in the SEA process[17]

[16] HM Government, The Environmental Assessment of Plans and Programmes Regulations 2004 (SEA Regulations). Available at: https://www.legislation.gov.uk/uksi/2004/1633/schedule/2. [Accessed February 2026].
[17] Department for Levelling Up, Housing and Communities (2020). *Strategic environmental assessment and sustainability appraisal*. Available at: https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal [Accessed February 2026].

The SEA Regulations requires preparation of an Environmental Report in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives considering the objectives and geographical scope of the plan or programme, are identified, described and evaluated.

The Office of the Deputy Prime Minister's (ODPM) guidance[18] makes clear that the purpose of SEA is not to select the preferred alternative; that responsibility rests with decision-makers. Instead, the SEA provides information on the relative environmental performance of alternatives and supports a transparent decision-making process. In the context of drought planning, SEA can help inform the timing, prioritisation, and implementation of drought actions, as outlined further in Chapter 1.2.2.

The SEA Regulations specify the range of environmental topics that must be considered, including biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage, and landscape. The SEA for our Drought Plan therefore considers the full range of environmental and social effects that may arise from its implementation.

The SEA process follows current and emerging guidance for applying SEA in water resources planning, ensuring that best practice is fully incorporated into the assessment approach. The most relevant and up-to-date guidance for SEA is the UK Water Industry Research (UKWIR) Environmental Assessments for Water Resources Planning (2021)[19], which provides industry specific requirements for undertaking SEA and HRA within both Water Resources Management Planning and Drought Planning. This is complemented by broader best-practice principles set out in the International Association for Impact Assessment's Guidance for Using SEA[20], which supports consistency with established international approaches.

The Environment Agency, Ofwat and Natural Resources Wales' Water Resources Planning Guideline, updated in 2023[21] and Environmental assessment for water company drought planning supplementary guidance 2025[22], sets out regulatory expectations for environmental assessments supporting water resource plans and provides the overarching framework relevant to SEA within the sector. Topic-specific best practice guidance is also drawn from Natural England, the Environment Agency and Historic England, including updated advice on biodiversity, climate, heritage and wider environmental considerations

[18] Office of the Deputy Prime Minister (2005) *A Practical Guide to the Strategic Environmental Assessment Directive.* Available at: https://www.gov.uk/government/publications/practical-guide-to-the-strategic-environmental-assessment-directive [Accessed January 2026].
[19] UK Water Industry Research (UKWIR) (2021) Environmental Assessments for Water Resources Planning. Available at: https://ukwir.org [Accessed January 2026].
[20] *International Association for Impact Assessment (IAIA) (2024) Guidance for Using Strategic Environmental Assessment*. Available at: https://training.iaia.org/wp-content/uploads/2025/06/SEA-Guidance-FULL-DOCUMENT.pdf [Accessed January 2026].
[21] Environment Agency, Natural Resources Wales and Ofwat (2023) Water Resources Planning Guideline. Available at: https://www.gov.uk/government/publications/water-resources-planning-guideline [Accessed January 2026].
[22] Environment Agency (2025). Environmental assessment for water company drought planning supplementary guidance. Available at: 03 Environmental assessment for water company drought planning Final March 2025 with highlights.pdf [Accessed March 2026].

published between 2025[23] and 2026[24], which support the integration of environmental protection objectives into the SEA.

Supplementary guidance from the Environment Agency and Natural Resources Wales on environmental and societal considerations in decision making[25] has also been applied, particularly in relation to assessing wider social and ecosystem impacts within adaptive planning approaches.

The Practical Guide to the SEA Directive (ODPM, 2005), now under the Department for Levelling Up, Housing and Communities[26], continues to provide the statutory foundation for SEA in the UK, and remains the key reference for interpreting legal requirements under the SEA Regulations.

Together, these documents ensure that the SEA of our Drought Plan reflects contemporary best practice, aligns with regulatory expectations, and integrates the latest environmental and technical evidence to support transparent and robust plan-making.

1.2.2 Applying SEA to Drought Planning

Our Drought Plan encompasses a group of drought actions that will only be implemented if and when required because of the unpredictable occurrence of a drought event, and thus the actual impact of the plan over its life is subject to uncertainties. There may or may not be a drought during the period of the plan, and each drought is different in terms of severity, season, location, duration and influence of other abstractors within the catchment. Each combination of these factors may require a bespoke reaction in terms of drought actions.

It is impossible to predict in advance which and how many of the drought actions will be required, and in which order of priority, to respond to each particular drought event. Therefore, SEA of Drought Plans cannot provide a certain prediction of an overall environmental effect of adopting the plan, as its implementation is uncertain. However, for some resource zones with fewer drought actions, it may be easier to predict which measures would be implemented in a particular drought scenario or it may be known that certain combinations would always be deployed simultaneously. This Environmental Report discusses these where relevant.

[23] *Natural England (2025) Natural England's Strategy: Underpinning Evidence. Available at: https://www.gov.uk/government/publications/natural-englands-strategy-underpinning-evidence* [Accessed January 2026].
[24] Historic England (2026) Latest Advice and Guidance. Available at: https://historicengland.org.uk/advice/find/latest-guidance/ [Accessed January 2026].
[25] Environment Agency and Natural Resources Wales (2021) *Water resources planning guideline: supplementary guidance – Environment and society in decision-making*. Available at: https://www.gov.uk/government/consultations/water-resources-planning-guideline-proposed-update/outcome/water-resource-planning-guideline-consultation-response-summary [Accessed January 2026]
[26] Office of the Deputy Prime Minister (ODPM) (now Department for Levelling Up, Housing and Communities) (2005) A Practical Guide to the Strategic Environmental Assessment Directive. Available at: https://www.gov.uk/government/publications/strategic-environmental-assessment-directive-guidance [Accessed January 2026].

The SEA of our Drought Plan applies a precautionary cumulative assessment approach, assuming that drought actions could be implemented together. This enables us to identify where actions may be mutually exclusive, as well as any combinations that could lead to significant environmental effects, ensuring that cumulative risks are fully understood and managed.

1.2.3 Compliance with the SEA Regulations

This Environmental Report has been prepared in accordance with the requirements of the SEA Regulations. Table 1.1 indicates where the specific requirements in the SEA Regulations relating to the Environmental Report (SEA Regulations Schedule 2) can be found within this report.

Table 1.1 SEA regulations requirement signposting table

SEA Regulations Environmental Report Requirements	Where the Requirement Is met in the Environmental Report
An outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes	Chapters 2, 6 and 6.6
The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme	Chapter 4 and Appendix D
The environmental characteristics of areas likely to be significantly affected	Chapter 6 and Appendix F
Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC	Chapters 6 and 6.6, Appendix D, and Appendix F
The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation	Chapter 3 and Appendix C
The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, historic environment, landscape and the interrelationship between the above factors	Chapter 6 and 6.6 and Appendix F
The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme	Chapter 8
An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	Chapter 2
A description of the measures envisaged concerning monitoring in accordance with Article 10	Chapter 8
A non-technical summary of the information provided under the above headings	Non-Technical Summary

1.3 Purpose of this Environmental Report

In the UK, the requirement under Article 5(1) of the SEA Directive, transposed through Regulation 12 of the Environmental Assessment of Plans and Programmes Regulations

2004, means that an environmental report must be prepared as part of the assessment (Stage C in Figure 1.1). The environmental report should address '*the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives….*'. This Environmental Report has been prepared in accordance with these requirements.

The purpose of this Environmental Report is to review the feasible actions of our Drought Plan and reasonable alternatives, to identify any potential effects (beneficial and adverse). This has been enabled through the following Environmental Assessment process:

- A high-level environmental screening assessment
- Detailed drought action-level assessments:
  - SEA
  - HRA
  - WFD
  - EAR
- Plan Appraisal, including cumulative and in-combination effects for SEA, HRA and WFD.

1.4 Consultation

1.4.1 Overview

Consultation is a core requirement of the SEA process. The SEA Regulations state that consultation must be undertaken early in the development of the plan with the Statutory Consultees on the scope and level of information to be included in the Environmental Report. In England, the Statutory Consultees are Natural England, the Environment Agency, and Historic England.

There are two formal opportunities for these bodies to engage in the SEA process: during the scoping stage and again at the environmental reporting stage as part of the public consultation. Each stage provides an opportunity for consultees to comment on the assessment approach, baseline information, and the emerging findings.

Following publication of the final Drought Plan 2027, we will prepare an SEA Post-Adoption Statement. This statement will set out how the SEA findings and any representations made by the consultees or the public have influenced our final Drought Plan 2027.

1.4.2 Consultation on the Scoping Report

Statutory Consultees, stakeholders and the public are invited to express their views on the scope of the SEA in accordance with SEA Regulation 12(5).

1.4.3 Consultation on the Environmental Report

The SEA Directive and the SEA Regulations do not prescribe a specific timeframe for consultation on an Environmental Report. Instead, the regulations require that

Consultation Bodies and the public *'shall be given an early and effective opportunity within appropriate timeframes to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme or its submission to the legislative procedure*'.

2 DESCRIPTION AND CONTEXT OF THE DROUGHT PLAN

2.1 Introduction

In the event of a drought, we would be required to implement a range of drought actions to ensure the continued provision of essential water supplies to all customers. Our Drought Plan 2027 is an operational tactical plan that details the actions we will take during a drought. It identifies how we intend to manage droughts, what trigger levels we will use to determine when action is required, and the measures available to support supplies when levels of service are compromised. It also outlines how we will communicate the effects of a drought and any drought actions to customers and takes account of the need to undertake environmental mitigation and monitoring at sites that may be affected by the implementation of drought actions.

This Drought Plan builds on our previous 2022 plan, incorporating our experience of managing droughts, particularly those in the 1990s and, more recently during the summer of 2025. Our Drought Plan has been prepared to comply with Sections 39B and 39C of the Water Industry Act 1991, as amended by the Water Act 2003[27], and in accordance with the Drought Plan Regulations 2005[28]. This is the statutory framework that places a duty on water undertakers to prepare, publish and maintain a drought plan.

Our Drought Plan also follows the guidance issued by the Environment Agency, including the Water Company Drought Plan Guideline 2025[29]. The Secretary of State has set out expectations for water company drought planning in the Drought Plan (England) Direction 2025 and the accompanying government expectations letter for the 2027 drought plans (22 July 2025)[30].

This drought plan complements our WRMP24, which forecasts water demand for the period April 2025 to March 2050 and assesses the vulnerability of our water supply systems to dry weather and droughts. Our WRMP24 sets out our preferred strategic solutions to address any supply and demand shortfalls. In contrast, our Drought Plan focuses on short-term operational measures that may be implemented to address temporary shortages of water resources during drought events.

[27] UK Government. (2003) Communications Act 2003. Available at: https://www.legislation.gov.uk/ukpga/2003/21/contents [Accessed February 2026].
[28] UK Government. (2005) *The Environmental Impact Assessment (England and Wales) Regulations 2005, SI 2005/1905, Regulation 4*. Available at: https://www.legislation.gov.uk/uksi/2005/1905/regulation/4 [Accessed February 2026].
[29] Environment Agency. (2025) Water company drought plan guideline. Available at: https://www.gov.uk/government/publications/water-company-drought-plan-guideline-2025/water-company-drought-plan-guideline-2025 [Accessed February 2026]
[30] Defra (2025) Drought Plan (England) Direction 2025 and Government expectations for water company drought plans. Referenced in the Environment Agency's Water Company Drought Plan Guideline 2025. Available at: https://www.gov.uk/government/publications/water-company-drought-plan-guideline-2025 [Accessed February 2026]

Drought actions are introduced progressively and sequentially, starting with those that have the least impact on customers and the environment. For example, Temporary Use Bans (TUBs) may be triggered if projected reservoir storage is forecast to fall below the drought control line. More severe actions, including those requiring drought permits or orders, would be considered only if water availability compared to demand continues to decline.

2.2 Drought Plan Development Process

The statutory process for producing and maintaining a drought plan comprises the following stages:

1. Submitting a Drought Plan to the Secretary of State for Environment and Rural Affairs
2. Publishing the Drought Plan for public consultation after approval from the Secretary of State
3. Public consultation on the Drought Plan
4. Publishing a Statement of Response to the representations made during public consultation
5. Publishing a revised Drought Plan incorporating the Statement of Response
6. Submitting the revised Drought Plan to the Secretary of State
7. Publishing the final Drought Plan after approval from the Secretary of State

Following approval to consult, our Drought Plan 2027 and this Environmental Report will be published for consultation with the public and statutory bodies (as per Stage 2 above).

2.3 Overview of Drought Actions

There are two broad categories for drought actions: actions to reduce demand (e.g. TUBs and Non-Essential Use Bans (NEUBs)); and actions to maintain supply (e.g. increase abstraction or transfer). The drought actions are aligned with drought severity Levels 1 to 3, with Level 0 (business as usual) included for completeness:

- **Level 0:** These refer to normal operational actions undertaken during dry weather
- **Level 1**: Actions we would consider implementing during prolonged dry weather. These are expected to have minor environmental impacts
- **Level 2**: Actions considered during a drought, typically associated with minor environmental impacts
- **Level 3**: Actions considered in more severe drought conditions. This level is further divided into two sub-levels a and b.

Level 4 are emergency drought actions and fall under our Emergency Plan; therefore, they are excluded from our Drought Plan.

Our strategy is to prioritise demand-side actions at each drought level before implementing supply-side actions, and to implement demand actions early enough, and for long enough, to achieve measurable impact on demand. An SEA has been undertaken to evaluate the individual and cumulative environmental effects of these actions. The SEA informs the

sequencing of actions by assessing their environmental and social effects, including risks to drinking water quality, impacts on communities, and seasonal differences in environmental sensitivity, recognising that effects can vary between summer and winter droughts. SEA findings have therefore informed our prioritisation so that supply-side actions with the least environmental impact are implemented first where required.

2.4 Assessment Approach for Drought Actions

Our assessment of both demand-side and supply-side drought actions follows a structured two-stage process that ensures each action is rigorously evaluated for feasibility, effectiveness and strategic fit before inclusion in the Drought Plan. Environmental considerations are embedded throughout, in line with SEA principles, to ensure the Drought Plan is both deliverable and aligned with wider environmental protection and sustainability objectives.

2.4.1 Stage 1: Unconstrained list

Stage 1 compiles a comprehensive unconstrained list of potential drought actions. The purpose is to identify all viable actions regardless of current operational status or delivery constraints. Each action is screened against consistent criteria to determine whether it should progress to detailed planning, including:

- **Estimated time to implement**: The time required to plan, prepare, and execute the action, expressed in hours, days, or weeks
- **Trackability**: Evaluation of how easily the action's effectiveness can be monitored (e.g., via smart meter data, installation counts, or audit reports)
- **Demand saving potential**: Estimated water savings, expressed in appropriate units such as megalitres per day (Ml/d), cubic metres per year (m^3/yr), or percentage reduction
- **Supply volume potential:** Estimated water supply, expressed in appropriate units such as Ml/d or m^3/yr
- **Suitability across drought scenarios:** Assessment of whether the action is suitable for various drought levels and different types, timings, durations and seasonality of droughts. If not considered appropriate to take forward, a brief justification is provided
- **Spatial location**: Identification of the geographical area where the action will be implemented
- **Decision to take forward**: A final decision on whether the action should be moved to the 'Constrained List', with reasons provided for any exclusions (e.g., low impact, slow implementation, or duplication with existing measures).

Potential environmental effects (beneficial and adverse) are noted at this stage. A RAG (Red–Amber–Green) screening highlights actions with significant environmental risks. Actions screened Red are either excluded or flagged for more detailed assessment and mitigation identification. This ensures environmental risks are considered systematically alongside feasibility and impact.

2.4.2 Stage 2: Constrained list

Drought Actions that pass Stage 1 are developed into detailed, implementable plans and categorised by intervention type (demand-side or supply-side) and drought level (Levels 1, 2, 3a and 3b). For each action, we document:

- **Concise action description**: A clear summary of what the action entails
- **Drought level mapping**: Identification of the drought level at which the action is triggered, planned, and implemented
- **Implementation timeline**: Time unit and value (e.g., four weeks), linked to a detailed timetable covering preparation, execution, delay before benefits, and expected duration
- **Demand saving details**: Quantified water savings in units as per Stage 1 above
- **Location**: Geographic area where the action is most effective, including any limitations to wider implementation
- **Seasonal effectiveness**: Identification of the most effective time of year, with justification
- **Permissions and constraints**: Indication of whether approvals are required and from which bodies
- **Risk assessment**: Confirmation of completion and link to supporting documentation
- **Impact on service levels**: Evaluation of the action's effect on WRMP24 drought service commitments
- **Scalability and fast-tracking**: Explanation of how the action can be accelerated or expanded if drought conditions worsen
- **Stakeholder engagement:** Outline of engagement with New Appointment and Variations, water retailers and other relevant stakeholders
- **Communications team support:** Indication of whether support from the Comms team is required.

2.5 Discounted Actions

As part of Stage 1 and 2, several potential drought actions were reviewed but not progressed to the constrained list. These were excluded for one or more of the following reasons:

- **Environmental concerns**: Some abstractions linked to potential drought actions are subject to ongoing investigations into abstraction impacts on the Broads Special Area of Conservation (SAC) and Waveney & Little Ouse Valley Fens SAC. Unless these concerns can be resolved, the action will not be taken forward
- **Implementation too slow or not timely for drought response**: Examples include smart meter replacements, compulsory metering, opt-in metering, water reuse/rainwater harvesting, tariffs, golf courses, and the Water Warden initiative
- **Low or uncertain impact**: These actions were found to have limited or unproven water savings and / or minimal supply volume potential. Examples include retailer training, advice on efficient products, Water in Business Week, targeting the top 5% of non-household (NHH) users, and business water efficiency rankings

- **Already at full capacity or currently being delivered**: These actions are either part of existing programmes or cannot be scaled further during drought conditions. Examples include business visits (offices, restaurants, shops, hairdressers), domestic NHH audits, educational building retrofits, Find & Fix campaigns for leaky loos, and free assessments for NHHs
- **Not suitable across drought scenarios**: Some actions were only applicable in extreme drought conditions or required government intervention. For example, relocating farm stock or businesses
- **Not trackable or unclear effectiveness**: These actions lacked reliable methods for monitoring impact or had unclear delivery mechanisms. Examples include water saving kits, Market Operator Services Limited support, and reducing pressures
- **Already covered in other plans**: Certain actions were already included in existing plans, such as using smart meter data to identify high-usage customers in the water efficiency plan.

2.6 Viable Actions

Following the assessment in Stage 2, a set of viable drought actions for our Drought Plan has been identified. These actions were subject to comprehensive appraisal in accordance with the methodology described in Chapter 5 and are categorised as demand-side or supply-side and mapped to drought severity Levels 0 to 3.

2.6.1 Demand-side actions

During a drought, water companies may be granted powers to impose TUBs to reduce demand and conserve essential water supplies. TUBs help protect resources for later stages of a drought and reduce environmental pressures associated with increased abstraction. The Water Use (Temporary Bans) Order 2010 sets out the specific uses, exceptions and conditions under which TUBs may be applied. If conditions worsen, companies can apply for NEUBs, extending restrictions to specified commercial and non-household activities.

Demand-side actions identified in our Drought Plan are presented in Table 2.1 and mapped against drought severity Levels 0 to 3. The table includes actions already in our current plan alongside new measures proposed for this planning round, together with the average saving per action at each drought level.

Table 2.1 Demand-side drought actions

Drought level	Drought severity	Demand-side actions	Average saving per drought level in megalitres per day (Ml/d)
0	Business as usual	Network optimisation to reduce output of Water Treatment Works (WTWs) which are supplied by a stressed water resource Customer communications As per our WRMP24 demand management selected options: ▪ Leakage detection and repair suite of options ▪ Water efficiency activity (non-household and household) ▪ Smart metering installations ▪ Government led interventions[31]	Please see WRMP24
1	Prolonged dry weather	Appeal for Restraint: ▪ Enhanced dry weather messaging ▪ Additional resource for find & fix leakage teams ▪ Encourage reporting of leaks ▪ Stop proactive flushing ▪ Optimising water supply and network to reduce output of WTWs which are supplied by a stressed water resource, as well as increased control over potable water storage levels ▪ High water use alerts to customers ▪ Water saving calculator promotion ▪ Target 15m head at the critical point in each pressure managed area	1.17
2	Drought	TUBs: ▪ Further additional resource to find & fix leaks ▪ Offer to repair the highest volume customer-side leaks ▪ Challenge illegal use ▪ Water Efficiency Home Audits to targeted areas ▪ Education workshops - community and schools ▪ Community outreach & business funding ▪ Tourism support	1.68
3a		NEUBs: ▪ Minimise WTWs outflows at all water stressed sourced WTWs and maximise elsewhere ▪ Manage the network to use potable water stored as resilience for changeable demands, managing	2.42

[31] Government led interventions are drought actions that cannot be implemented by us alone; they require government approval, usually from the Secretary of State (Defra), and are regulated by the Environment Agency.

Drought level	Drought severity	Demand-side actions	Average saving per drought level in megalitres per day (Ml/d)
		our network storage levels at low levels, increasing risk of maintaining supply to customers ▪ Hard hitting communications ▪ Target 10m head at the critical point in each pressure managed area ▪ Installation of flow regulators to households ▪ Shower device offering ▪ Flow restrictors to non-households	
3b	Severe drought (extreme)	Reduce Ships Watering Removal of Statutory Exceptions on TUBs and NEUBs Manage Strategic Operational Plan (SOP) storage to low-low alarm levels, increasing risk of maintaining supply to customers Seasonal Tariffs for smart metered customers	0.28

2.6.2 Supply-side actions

Supply-side actions are measures that can temporarily increase the amount of water available for supply. These actions do not require the construction of any new infrastructure. Potential supply-side actions that do not require a drought permit or order are listed in Table 2.2. Actions that do require drought permit or drought order are summarised in Table 2.3 mapped to drought severity levels.

By assessing historical events and modelling a range of future scenarios, we have identified locations where we may feasibly require a drought permit or order and have included them in our Drought Plan. The supply-side actions we propose include a list of potential drought orders and drought permits. The final applications we may seek will depend on the severity of the drought event, the time of year, and the specific locations where water resources are constrained. If a severe drought coincides with unforeseen operational circumstances that risk loss of supply to customers, it is possible that additional permits/orders not listed here may be required. Each application will be assessed by the Environment Agency and cannot be guaranteed.

Table 2.2 Supply-side drought actions

Level	Drought measure	Water Resource Zone (WRZ)	Description
0	Raw water and WTWs optimisation	All	Maximise early abstraction from rivers to maintain reservoir and groundwater storage, preserving availability for later drought stages when river flows are low
	Coordination planning to minimise planned outage	All	Defer planned maintenance during drought or bring forward works early if they improve water resource availability.
	Operation of the Ely Ouse to Essex Transfer Scheme (EOETS)	Essex	An Environment Agency operated scheme that transfers water from fenland rivers to the River Stour and River Pant via tunnels and pipelines, supporting refill of Abberton and Hanningfield reservoirs. Activation is based on agreed control curves.
	Operation of the Langford Effluent Recycling Plant		Indirect potable reuse at Langford WTW, returning treated effluent to the River Chelmer under licence to support abstraction and reservoir refill (up to ~30–40Ml/d).
	Operation of the River Waveney Augmentation Groundwater Scheme (WAGS)	Northern Central	An Environment Agency owned and operated scheme that supports River Waveney flows during drought by pumping groundwater when river levels fall below licence thresholds, ensuring abstraction needs are met.
1	Operation of the Stour Augmentation Groundwater Scheme (SAGS)	Essex	An Environment Agency owned and operated scheme that pumps groundwater into the River Stour during drought to maintain flows and support downstream abstractions for reservoir refill.
	Operation of the Great Ouse Groundwater Scheme (GOGS)		Uses groundwater boreholes to augment River Great Ouse flows during drought, supporting EOETS and improving supply resilience.
	Road tankering potable water from Carlton Colville	Hartismere and Blyth	Transport water via roads from Carlton Colville Pumping Station to Hartismere towers (Bedingfield and Eye) to maintain tower levels during drought; limited volumes mean it supplements storage rather than replacing lost WTW output.

Level	Drought measure	Water Resource Zone (WRZ)	Description
	Pumping Station to Bedingfield and Eye		
3a	Bulk raw water transfer from Thames Water to Chigwell WTW	Essex	Fair apportionment of water clause enacted when both companies implement at TUB
3b	Emergency treated water transfer from Anglian Water	Hartismere	Emergency treated water transfer from Anglian Water Services to our Hartismere WRZ. This would be subject to Anglian Water having critical period supply headroom.

Table 2.3 Supply side drought permit/order actions

Level	Drought name	WRZ	Description
2	Denver abstraction licence Hands-off Flow (HoF) Variations	Essex	Drought order to reduce the HoF at Denver in March & April.
3b	Coldfair Green groundwater abstraction	Blyth	Drought permit to increase groundwater abstraction and then reduce compensation flow (if required).

3 RELATIONSHIPS WITH OTHER POLICIES, PLANS AND PROGRAMMES

3.1 Introduction

Annex 1 of the SEA Directive (Directive 2001/42/EC), as transposed into UK law through the Environmental Assessment of Plans and Programmes Regulations 2004, requires specific information to be included within the Environmental Report:

- "*an outline of the…relationship with other plans and programmes*"
- "*the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme*"
- "*the environmental characteristics of areas likely to be significantly affected*"
- "*any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC (the 'Birds Directive') and 92/43/EEC (the 'Habitats Directive')*"
- "*the environmental protection objectives, established at international, (European) Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation*".

In accordance with the requirements, a review of relevant plans and programmes is presented in Chapter 3.2. A summary of messages is presented in Chapter 3.3 with full review presented in Appendix C.

3.2 Policies, Plans and Programmes Review

One of the first steps in undertaking SEA is to identify other relevant policies, plans, programmes, and environmental protection objectives. This forms part of Stage A of the SEA process (Figure 1.1). Reviewing these documents helps us understand how our Drought Plan may be influenced by wider policy context, identify environmental and social objectives that should be considered, and inform the development of our SEA assessment objectives. Our aim is to determine how our emerging Drought Plan may be affected by these external factors and how it should respond.

Our Drought Plan must support current policies, plans, programmes, and environmental protection legislation at international, national, and local levels. We have identified potentially relevant policies, plans and programmes across the international, European, national, regional and local scales. The full list of documents reviewed, along with their key policy objectives, targets and their relationship to the SEA objectives, is provided in Appendix C.

In addition, our Drought Plan must support, and where possible strengthen, the objectives of other local plans and strategies within our supply area. It should contribute to wider environmental goals, including:

- Supporting the recommendations of the Lawton Review (Making Space for Nature)[32], which advocates for a more resilient and connected ecological network across England; and,
- Supporting the UK Government's Environmental Improvement Plan[33], which sets out a comprehensive framework for improving England's natural environment up to 2043 including goals: restored nature, environmental quality, circular economy, environmental security and access to nature.

This review allows us to identify potential conflicts, constraints and areas of alignment between our Drought Plan and other relevant documents. This in turn informs the development of our SEA Framework.

3.3 Identification of Key Themes and Messages

From our review of relevant policies, plans and programmes, we identified a number of key themes and messages that are particularly relevant to the development of our Drought Plan. These include the need to:

- Conserve flora and fauna and their habitats, including designated and non-designated sites
- Conservation and wise use of wetlands and their resources
- Halt overall biodiversity loss and support the protection, recovery and enhancement of biodiversity
- Contribute to nature recovery and nature recovery networks and strategies
- Protection of landscape character and quality
- Improve water quality so all waters achieve 'good status' or 'no deterioration' as set out in the WFD. For some designated sites, the target is however 'high status'
- Prevent or limit inputs of pollutants into groundwater
- Monitor and provide information to consumers on drinking water quality
- Promote efficient use of water
- Reduce greenhouse gas emissions to support the transition to the UK Government's 2050 net zero target
- Adapt to the impacts of climate change including drought, flooding and peak water demand conditions
- Increase resource efficiency and reduce natural resource use and waste, applying circular economy principles
- Create a green economy and promote sustainable growth

[32] Lawton, J.H., Brotherton, P.N.M., Brown, V.K., Elphick, C., Fitter, A.H., Forshaw, J., Haddow, R.W., Hilborne, S., Leafe, R.N., Mace, G.M., Southgate, M.P., Sutherland, W.A., Tew, T.E., Varley, J. and Wynne, G.R. (2010). *Making Space for Nature: A review of England's wildlife sites and ecological network*. Report to Defra. Available at: https://www.cotswolds-nl.org.uk/wp/wp-content/uploads/2017/06/lawton-201009-space-for-nature.pdf [Accessed February 2026].
[33] DEFRA (2025). *Environmental Improvement Plan 2025*. Available at: Environmental Improvement Plan 2025. [Accessed March 2026].

- Promote sustainable and healthy communities
- Promote social inclusion and community participation
- Protect cultural heritage assets including archaeology and built heritage
- Protect best quality soils and agricultural land.

4 ENVIRONMENTAL BASELINE REVIEW

4.1 Introduction

Annex I of the SEA Directive (Directive 2001/42/EC), as transposed into UK law through the Environmental Assessment of Plans and Programmes Regulations 2004, requires specific baseline information to be included within the Environmental Report to identify the environmental characteristics of areas likely to be significantly affected by our Drought Plan 2027. In accordance with these Regulations, we must present:

- '*the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme*'
- *'the environmental characteristics of areas likely to be significantly affected'*
- '*any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC (the 'Birds Directive') and 92/43/EEC (the 'Habitats Directive')*'.

An essential part of the SEA process is for us to identify the current baseline environmental conditions and their likely evolution in the absence of our Drought Plan over its lifetime. Understanding the baseline is fundamental, as it enables us to identify, assess, monitor and, where necessary, mitigate the potential environmental impacts arising from the implementation of our Drought Plan.

Our baseline builds on the data presented in our SEA Scoping Report, has been updated following feedback from the Scoping consultation, and has been further developed through a desk-based study undertaken between December 2025 and March 2026. In relation to the temporal scope, the assessment covers the 5-year plan between 2027 to 2032. Our baseline covers a broad geographical area, recognising that water is sourced both within and outside our supply areas, including transfers from the wider region. To reflect this interconnected context, and to ensure that all potential pathways for environmental effects are captured, we have defined three geographical areas:

- Water Resources East boundary – representing the wider regional context, used where environmental datasets are only available at this scale or where broader-scale information is more appropriate for assessing potential effects
- Drought Plan SEA study area – comprising the ESW supply area (for demand-side actions) and the wider operational catchments where supply-side actions may result in direct or indirect effects beyond the immediate ESW supply area
- ESW supply area – representing the geographical area in which we supply drinking water to our customers.

This tiered approach enables us to consider potential effects both within and beyond our supply areas, reflecting how drought actions may influence the wider water resource network. These geographical areas are shown in Figure 4.1 as well as Figure 1.1 of Appendix D.

Figure 4.1 Spatial extent of the three geographical data collection areas

An overview of our supply areas, broken down into WRZs, is provided below in this chapter, together with the key environmental issues and opportunities we have identified through our baseline work. The full environmental baseline is presented in Appendix D and is structured by SEA Regulations topics:

- Biodiversity, flora, and fauna
- Water
- Soil
- Air
- Climatic factors
- Population and human health
- Historic environment
- Landscape
- Material assets.

Appendix D also includes summaries of the likely future trends in the environmental and social issues considered, where suitable information is available. Predicting future trends is inherently challenging because they depend on a wide range of global, national and regional drivers, as well as future policy and operational decisions. Nonetheless, establishing both current and future baseline conditions is essential, as this provides the foundation for identifying, assessing, monitoring and, where required, mitigating the potential environmental impacts associated with implementing our Drought Plan.

4.2 Overview of ESW

The ESW area is divided into two geographically separate supply areas: the Essex Supply Area and the Suffolk Supply Area, both outlined in red in Figure 4.2. We supply water to approximately 1.76 million customers in the Essex Supply Area and around 0.28 million customers in the Suffolk Supply Area. Together, these areas form some of the driest regions in the UK, receiving significantly less rainfall than the national average and designated by the Environment Agency as a serious water stressed area.

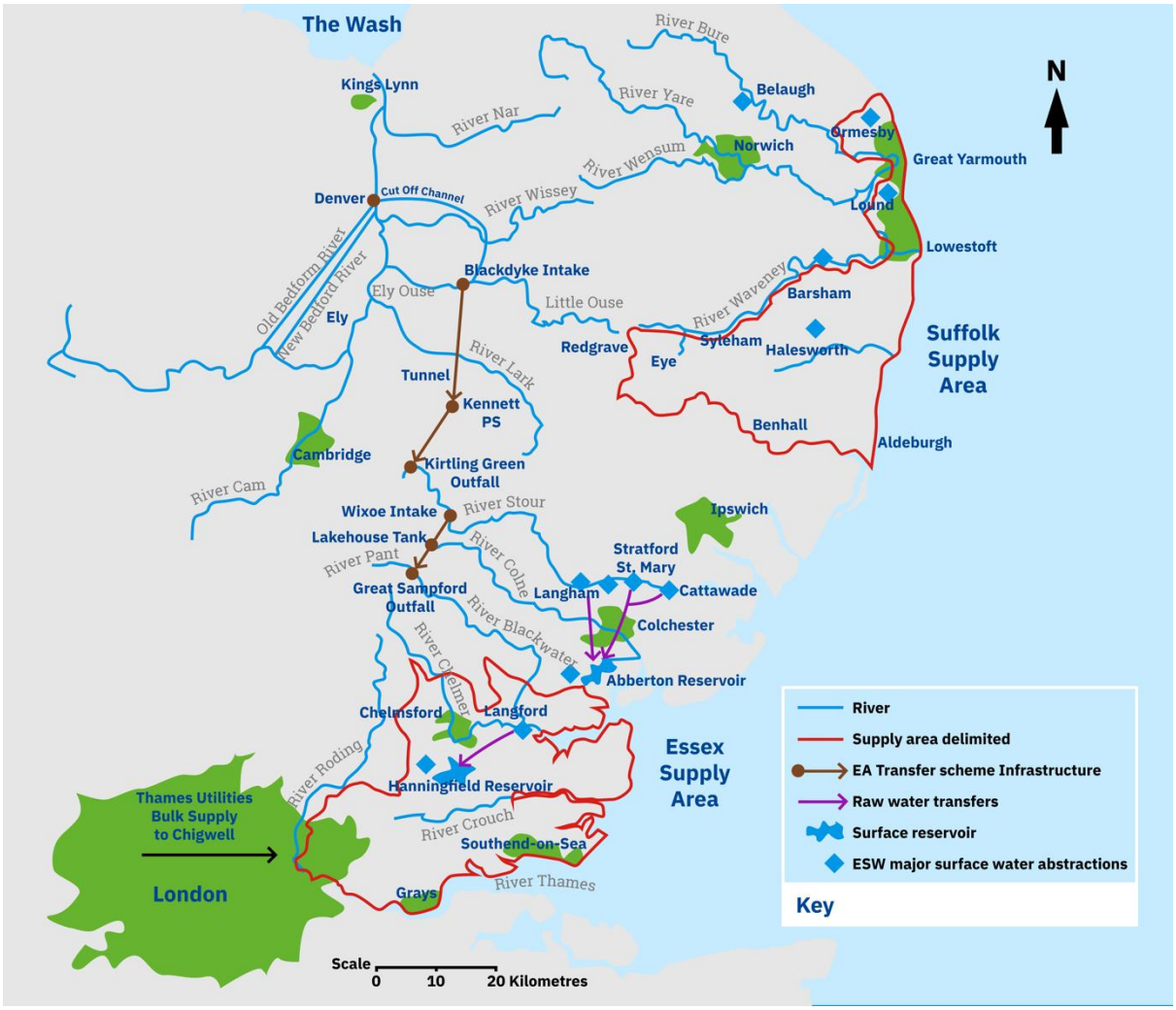

Figure 4.2 Essex & Suffolk Supply Areas

4.3 Water Resources Zones

There are four WRZs across the two supply areas. Essex consists of a single WRZ, while Suffolk comprises three WRZs: Hartismere, Blyth, and Northern Central.

4.3.1 Essex

Essex Water Resource Zone

The Essex WRZ, see

Figure 4.3, is bounded by the Thames Estuary in the south, the Essex coastline as far north as Salcott in the east, Silver End in the north, and the London Boroughs of Redbridge, Barking and Havering in the west. The area includes the towns of Southend-on-Sea, Chelmsford, Witham, Brentwood, Billericay, Basildon, Grays, Dagenham and Romford.

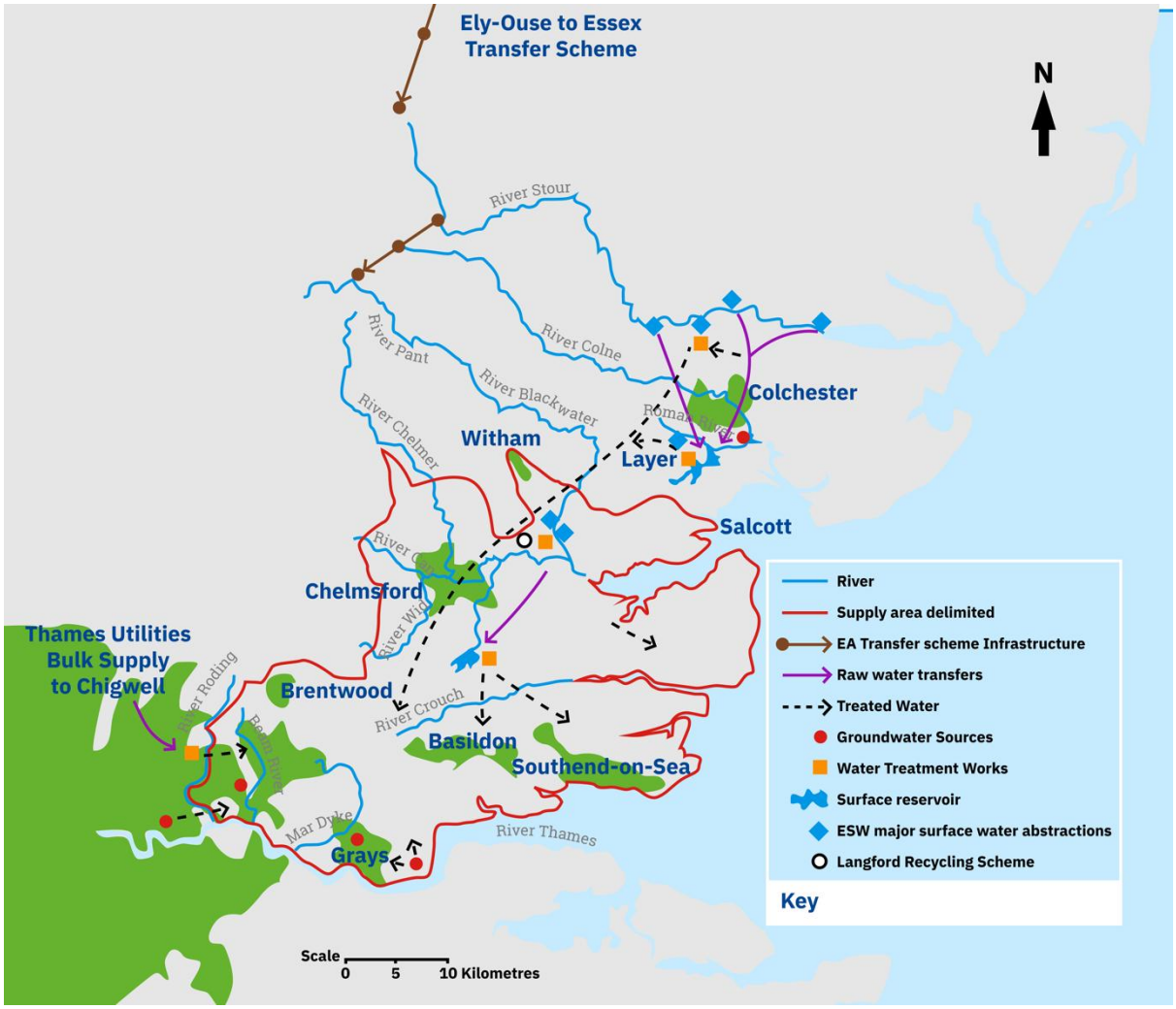

Figure 4.3 Essex Water Resource Zone

In a drought year, only around half of the water supplied within the Essex Supply Area is sourced from within it, with the rest being transferred in from outside the area. This is because the water abstracted from local rivers and the bulk raw water supply from Thames Water is insufficient to meet demand.

The water sources within the Essex Supply Area include the River Chelmer, River Blackwater, River Stour, the Roman River and Sandon Brook, which are used to fill pumped storage reservoirs at Hanningfield and Abberton, and supply our WTW at Langham and Layer de la Haye in north Essex, and Langford and Hanningfield in south Essex. The remaining water sourced from inside the supply area (approximately 2% of total water supplied) is derived from groundwater via Chalk well and adit sources in the south and southwest of the zone.

In a drought year up to a third of the water abstracted from the Essex rivers is supported by the EOETS. This is owned and operated by the Environment Agency and transfers

water, when control rules are met, via pipelines and pumping stations from Denver in Norfolk to the headwaters of the River Stour and the River Blackwater.

The EOETS, the Essex rivers, and their associated intakes, the pumped storage reservoirs at Abberton and Hanningfield and associated raw water transfer pipes, pumping stations and treatment works are collectively known as the 'Essex System'. This reflects the nature of the water resource zone supporting the Essex Supply Area, which is a fully integrated with great flexibility for moving drinking water around to where it is required.

In a drought year, a further 15% of water in the Essex Supply Area is provided via a raw water bulk transfer provided by Thames Water Utilities from the Lee Valley reservoirs. The raw water is pumped directly to our treatment works at Chigwell for treatment and then into supply.

Since 2003, the Essex Supply Area has benefited from an innovative effluent recycling scheme near Maldon. The scheme intercepts effluent from Chelmsford sewage treatment works and treats it to a very high standard at a purpose-built treatment plant. Once treated the water is pumped 3km upstream into the River Chelmer where it augments the natural river flow and is available for re-abstraction via existing intakes, supporting a nearby WTW and storage in Hanningfield Reservoir. During dry periods, the scheme can provide up to an additional 20Ml/d (April to November) of water for use within the Essex Supply Area.

The completion of the Abberton Scheme in 2014, which included increasing the capacity of Abberton Reservoir by 58%, achieved a surplus of water across the full planning horizon of our previous WRMP19. However, we are now required to plan for our water supply to be resilient through even more severe droughts, those expected to occur on average once every 500 years. When we reviewed the Essex WRZ supply demand balance during the preparation of our current WRMP24, this requirement, alongside increasing customer demand and the impact of climate change on our resources, resulted in the need for us to make additional investment to increase water available for use by 2030.

4.3.2 Suffolk

The three Suffolk WRZs and their associated infrastructure are shown in Figure 4.4.

Figure 4.4 Suffolk Water Resource Zones

Hartismere Water Resource Zone

The Hartismere WRZ is shown in Figure 4.4. It extends north to the River Waveney (from its source at Redgrave in the west to Mendham in the east), to the west as far as Rickinghall and Wyverstone Street, and to the south as far as Mendlesham Green and Aspall. The zone was predominantly rural in nature and characterised by arable farming. However, there has been significant expansion of Eye Industrial Estate, particularly over the last five years, including many businesses with a high non-domestic water requirement.

All the water supplied within the Hartismere WRZ is abstracted from boreholes constructed into the Chalk and Crag aquifers (water bearing rock).

The Hartismere WRZ was particularly affected by the last major drought in Suffolk between 1995 and 1997. Consequently, following the drought we made significant investments including infrastructure enhancement to enable transfer of water more easily around the WRZ, and the successful development of two new groundwater sources to address security of supply concerns. However, during the preparation of our WRMP24, we identified a baseline supply-demand balance deficit in the Hartismere WRZ across the whole 25 year planning horizon. To address this deficit, as outlined in our WRMP24, we are constructing a new potable water transfer pipeline from Barsham WTW in our Northern Central WRZ, so that additional supplies can be brought into the Hartismere WRZ. This is scheduled for completion during 2033.

Blyth Water Resource Zone

The Blyth WRZ (Figure 4.4) is bounded by the Suffolk coastline in the east (between Aldeburgh in the south and Walberswick in the north), in the west by Earl Soham, and in the north at Chediston. This WRZ includes the towns and villages of Saxmundham, Leiston, Framlingham, Peasenhall and the southern side of Halesworth. Similarly, to Hartismere, the Blyth WRZ is predominantly rural in nature. All the water supplied within the Blyth WRZ is abstracted from seven groundwater sources.

During the preparation of our WRMP24, we identified a baseline supply-demand balance deficit in the Blyth WRZ after the first year and for the remainder of the 25 year planning horizon. As for Hartismere, our new potable water transfer pipeline from Barsham WTW will help resolve this deficit and improve long-term resilience within the Blyth WRZ.

Northern Central Water Resource Zone

The Northern Central WRZ (Figure 4.4) is bounded by the River Waveney and River Bure to the west, and the Suffolk coastline from Southwold to Winterton-on-Sea in the east. This WRZ includes the towns of Lowestoft, Great Yarmouth, north Halesworth, Bungay and Beccles. Demand in the WRZ is heavily influenced by the large population centres in Lowestoft and Great Yarmouth. The transient holiday population in Great Yarmouth during the summer can have a notable seasonal effect on demand.

Water supplied in the Northern Central WRZ is predominantly sourced from surface water, with a smaller proportion from groundwater in the south of the WRZ. Surface water is provided via four sources including the River Waveney, the River Bure, and groundwater fed lakes at Ormesby, Lound and Fritton. A smaller component of raw water can be sourced from remote chalk boreholes in the north of the WRZ. Larger quantities of groundwater produced in the south of the WRZ are abstracted from eight groundwater sources.

Our WRMP24 supply demand balance for the Northern Central WRZ shows a small surplus until 2031/32 but a deficit thereafter.

To address this deficit, and to support potable water transfers to the Hartismere and Blyth WRZs, we plan to deliver a number of new supply schemes. Further details on these schemes are provided in Section 2.4.3 of the ESW Drought Plan[34].

4.4 Key Environmental Issues and Opportunities

The full environmental baseline is presented in Appendix D, while a summary of the key issues and opportunities identified across each SEA Regulations topic is provided in Table 4.1 below. This summary has been used to support the development of the SEA objectives set out in Chapter 5.

[34] Essex & Suffolk (ESW) (2026). Draft Drought Plan 2027 Main Report. March 2026.

Table 4.1 Key issues and opportunities associated with each SEA Regulations topic

SEA topics	Implications	Opportunities
Biodiversity, Flora and Fauna	Our supply areas are rich in habitats and species diversity, with national and internationally designated sites including Sites of Special Scientific Interest (SSSIs), National Nature Reserves, Special Protection Areas, SAC and Ramsar sites. There is a risk that drought actions proposed in our Drought Plan could affect surface water or groundwater water quality by reducing flows that would normally dilution, which may in turn adversely affect wildlife. Wetland and marsh habitats are particularly vulnerable, as they depend on consistent water availability. We must therefore ensure that these sensitive areas are protected from abstraction, and we should continue to seek opportunities to reduce abstraction pressures where this is cost-effective and environmentally beneficial. The location of the designated sites within our Drought Plan SEA study area is presented in Appendix D, Figure 1.2.	Our Drought Plan should ensure that there are no adverse impacts on biodiversity. Mitigation measures should be included where impacts are unavoidable and should consider opportunities to: ▪ Protect and conserve biodiversity ▪ Slow/halt biodiversity losses/declines ▪ Enhance biodiversity and build on existing habitats, particularly designated sites ▪ Adress biosecurity risks, including the management of INNS ▪ Protect sensitive wetlands and Groundwater Dependent Terrestrial Ecosystems
Water	Pollution from rural areas is the predominant pressure within the Anglian River Basin District (RBD). Our drought actions have the potential to adversely affect water quality by reducing flows that would normally dilute pollutants and help maintain Dissolved Oxygen (DO) levels. Reduced flows may also contribute to habitat fragmentation, limited water availability, and changes in water chemistry, including increased nutrient concentrations, altered pH, and lower oxygen levels. In addition, temperature fluctuations and increased turbidity during drought conditions may place further stress on aquatic species and degrade sensitive habitats. Across our region, there are areas at high risk of flooding from surface water, rivers and the sea. However, the drought actions included in our Drought Plan are unlikely to increase flood risk, as	Our Drought Plan should avoid implementing drought actions that could have an adverse impact on water quality or ecology. We should explore drought actions that help to reduce pressures on the water environment, supporting both environmental protection and long-term resilience. The WFD will need to be considered throughout the action selection process to help identify measures that could contribute to WFD improvements and avoid any risk of WFD deterioration. In doing so, we should consider actions that: ▪ Ensure the protection, improvement and sustainable use of water bodies ▪ Avoid, control or reduce water pollution ▪ Leave more water in the natural environment

SEA topics	Implications	Opportunities
	they do not alter the physical processes that contribute to flooding or influence rainfall-driven hydrological conditions.	
Soil	Agriculture plays a dominant role in the landscape across our supply areas. The most common agricultural land classifications in the region are Grade 3 (good to moderate quality land) and Grade 5 (very poor quality agricultural land). Drought actions within our Drought Plan have the potential to reduce water availability for agricultural processes, which may affect crop production and livestock management, particularly during prolonged dry periods. Climate change is expected to increase both the frequency and severity of drought events, which could further exacerbate pressures on water resources and the wider environment. This reinforces the need for us to develop drought actions that protect water availability while balancing agricultural needs and environmental resilience.	Our drought actions should avoid, as far as possible, impacts on higher-grade agricultural land, and include appropriate mitigation where such impacts cannot be fully avoided. There are also opportunities for drought action related mitigation measures to deliver beneficial outcomes for agriculture. For example, drought actions designed to increase raw water storage and supply can support: ▪ Promote regenerative agricultural practices ▪ Ensure measures are taken to prevent soil erosion ▪ Reduce nutrient loads within surface water and groundwater bodies
Air	Air quality across our supply areas is varied. In general, air quality is good; however, there are 29 Air Quality Management Areas (AQMAs) within our supply areas, with key pollution sources including transport, industry and domestic fuel burning. Some drought actions within our Drought Plan may have the potential to affect air quality. This includes the generation of additional emissions from tankering movements and other transport-related activities required to support drought response operations.	Consideration of potential impacts on air quality should form part of our action selection development and mitigation measures.

SEA topics	Implications	Opportunities
Climatic factors	Our supply areas are projected to experience hotter and drier summers, and wetter and warmer winters. These shifts are likely to increase the frequency and severity of drought conditions, potentially reducing water availability across the region. In addition, some drought actions within our Drought Plan may result in carbon emissions during their operation, contributing to our overall operational carbon footprint. It will therefore be important for us to consider opportunities to minimise emissions during the selection, design and implementation of drought actions.	Our Drought Plan provides an important opportunity for us to consider the impacts of climate change as part of the drought action selection process. We should also explore measures that increase the resilience of each action to a changing climate, ensuring that our response remains robust under more extreme and less predictable future conditions. In addition, we must consider how the drought actions themselves may affect climate change, including their potential carbon emissions, and seek opportunities to minimise these impacts through careful selection, design and implementation. Overall, our Drought Plan aims to directly address the impacts of climate change and temporal fluctuations in weather patterns on both water demand and water availability, while improving the resilience of our region to severe drought.
Population and human health	Population growth across our supply areas is expected to place additional pressure on the water environment, driven by rising demand for water resources. This pressure is likely to be further intensified by ongoing economic development and the projected impacts of climate change. Population health across the region is generally rated as good to very good, consistent with national averages for England. However, any impacts on the water environment or wider natural environment have the potential to affect opportunities for recreation and overall wellbeing. Ensuring that our drought actions minimise pressures on the natural environment will therefore help support healthy, resilient communities.	Our Drought Plan provides an opportunity for us to ensure a resilient and reliable water supply for customers now and in the future, helping to ensure that there is sufficient water to meet the needs of a growing population and to support continued economic growth. As pressures on water resources increase, the economic value of water may also rise, potentially requiring a greater value to be placed on water through increased charges and/or seasonal water rates When operating drought actions and implementing mitigation measures, we should consider: ▪ Prevention of disturbance effects for the local community ▪ Avoiding impacts on vulnerable groups from demand side drought actions

SEA topics	Implications	Opportunities
		▪ Opportunity to raising awareness of the value of water resources
Historic environment	Our supply areas contain a rich and diverse historic environment, including numerous listed buildings, scheduled monuments, and registered parks and gardens. Drought actions proposed within our Drought Plan have the potential to affect the historic environment either directly, by altering the fabric or structure of heritage assets, or indirectly, by influencing their setting, context or visual integrity. Potential impacts include: ▪ Effects on heritage assets and water-dependent features resulting from changes in water catchment or abstraction. ▪ Changes in groundwater flows and chemistry, which may degrade organic materials and paleoenvironmental remains due to de-watering, re-wetting or increased salinity. ▪ Hydromorphological alterations, or altering river or coastal forms, with implications for archaeological remains. ▪ Disturbance of unrecorded, deeply buried or waterlogged archaeology, particularly within floodplain, estuarine or coastal deposits.	The drought actions within our Drought Plan should fully consider the historic environment and seek to minimise adverse effects. In doing so, we should protect archaeological and cultural heritage assets.
Landscape	The landscape across our supply areas is diverse and includes a range of important and valued landscapes, such as National Landscapes and other designated areas. There is potential for the drought actions proposed within our Drought Plan to affect landscape character and visual amenity; however, these effects are expected to be limited and largely associated with operational impacts, such as those arising from periods of low river flow.	Consideration of potential impacts on the landscape and visual amenity should form an integral part of our action selection process and the operation of drought actions. Where adverse effects cannot be fully avoided, we should identify and implement appropriate mitigation measures.

SEA topics	Implications	Opportunities
Material assets	Our supply areas contain important transport links that support both the regional and national economy. We also operate significant water infrastructure across these areas. Implementation of our Drought Plan may lead to an increased use of energy resources, particularly through additional pumping requirements and the use of water tankering during drought conditions.	Our Drought Plan provides an opportunity for us to consider the efficient use of resources as part of the drought action selection process, helping to reduce energy consumption, minimise the use of materials and prevent unnecessary waste generation. In doing so, we should aim to: ▪ Reduce resource or energy use ▪ Minimise waste generation ▪ Avoid impacts on the transport network.

5 ASSESSMENT METHODOLOGY

5.1 Introduction

This chapter outlines the methodology that has been used to undertake the SEA of the drought actions included in our Drought Plan. The approach has been developed in accordance with the relevant provisions of the SEA Regulations, specifically:

- ***Regulation 12***:

  (2) The report shall identify, describe and evaluate the likely significant effects on the environment of –

  (a) implementing the plan or programme; and

  (b) reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme

- ***Schedule 2:***

  The Environmental Report should include:

  (6). The likely significant effects on the environment, including short, medium and long-term effects, permanent and temporary effects, positive and negative effects and secondary, cumulative and synergistic effects.

  (8). An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information

The environmental assessments supporting the development of our Drought Plan follow guidance from the following key documents:

- Environmental Assessment Guidance for WRMPs and Drought Plans (2021)[35]
- A Practical Guide to the SEA Directive[36]
- Water Company Drought Plan Guideline[37]

[35] UKWIR (2021). Environmental Assessment Guidance for Water Resources Management Plans and Drought Plans. *London: UK Water Industry Research.* Available at: https://ukwir.org [Accessed February 2026].
[36] Office of the Deputy Prime Minister (ODPM), Scottish Executive, Welsh Assembly Government, and Department of the Environment (Northern Ireland) (2005). *A practical guide to the Strategic Environmental Assessment Directive*. London: Office of the Deputy Prime Minister. Available at: https://assets.publishing.service.gov.uk/media/5a78ec0740f0b62b22cbddd2/practicalguidesea.pdf [Accessed February 2026].
[37] Environment Agency and Department for Environment, Food and Rural Affairs (2025). *Water company drought plan guidance, 2025*. Available at: https://www.gov.uk/government/publications/water-company-drought-plan-guideline-2025 [Accessed February 2026]

- Water Resources Planning Guideline Supplementary Guidance[38]
- Environmental Assessment for Water Company Drought Planning: Guidance[39].

Additional supplementary and topic-specific guidance have been considered where relevant.

5.2 SEA Framework

The environmental assessment of potential and identified drought actions has been carried out using an 'objectives-led' approach, which is a widely recognised method for evaluating environmental effects and comparing alternative actions. Our SEA objectives were derived from:

- Environmental protection goals set out in relevant policies, plans, and programmes (see Chapter 3), enabling identification of areas where the Drought Plan may support or conflict with other objectives at local, national, or international levels
- The current environmental conditions within our supply areas and source catchments, along with key environmental issues and opportunities (see Chapter 4 and Appendix D)
- Consideration of the likely evolution of the baseline, drawing on key environmental trends such as projected climate change impacts, anticipated pressures on water resources, changes in land use and habitat condition, and expected shifts in population and demand.

The SEA assessment objectives for our Drought Plan were developed to align with those used in our WRMP24 SEA. Objectives that were scoped out from our WRMP24 are outlined in our SEA Scoping Report[40].

The SEA objectives and associated assessment questions, presented in Table 5.1, guide the evaluation of each drought action using a consistent, evidence-based approach. These were refined following feedback from statutory consultees during the scoping consultation. For each SEA topic, we developed key questions to ensure comprehensive coverage, updating them where necessary to reflect stakeholder input and evolving priorities.

Each drought action has been assessed using the following information:

- Details of the drought action
- Likelihood and predicted frequency of deployment
- Construction (where applicable) and operational characteristics

[38] Environment Agency (2022). *Water resources planning guideline supplementary guidance – actions required to prevent deterioration.* Available at: https://www.gov.uk/government/publications/review-of-englands-emerging-regional-water-resources-plans/review-of-englands-emerging-regional-water-resources-plans [Accessed February 2026].
[39] Environment Agency (2025). Environmental assessment for water company drought planning: Guidance. Version 1.0. LIT 75033. Published 21 March 2025. Environment Agency, in collaboration with Defra and Natural England.
[40] Northumbrian Water (2025) SEA Scoping Consultation. Available at: https://www.nwg.co.uk/sea-scoping-assessment [Accessed February 2026).

- Relevant information from Environmental Assessment Reports (EARs)[41&42]
- Benefits to the supply demand balance during drought (considering uncertainty)
- Key baseline environmental features, including designated sites, priority habitats and species, landscape and heritage assets, recreational facilities, and other relevant features.

Findings from the HRA for Special Protected Areas (SPAs) and Special Areas for Conservation (SACs), Natural England's Impact Risk Zones (IRZs) for SSSIs, and WFD assessments have also informed the evaluation of drought actions against SEA objectives related to biodiversity and water. Table 5.1 also provides the key information sources that supported this assessment.

[41] Essex & Suffolk (ESW) (2026). Denver Environmental Assessment Report (EAR). [Unpublished]. Available on request.
[42] Essex & Suffolk (ESW) (2026). Coldfair Green Environmental Assessment Report (EAR). [Unpublished]. Available on request.

Table 5.1 SEA objectives and assessment approach

SEA topic	SEA objectives	Indicator questions	Source of information
Biodiversity, Flora and Fauna	To protect and enhance biodiversity, ecological functions, capacity and habitat connectivity, including protecting designated sites and their qualifying features, priority species and priority habitats. To provide opportunities for habitat creation or restoration. To avoid introducing or spreading and, where feasible, manage INNS. To meet WFD objectives relating to biodiversity and targets and conservation objectives of designated sites.	▪ Is the action likely to affect the conservation status of any internationally, nationally or locally designated sites? ▪ Is the action likely to contribute to or conflict with the targets and conservation objectives for designated sites? ▪ Will the action protect and enhance aquatic habitats and species, including freshwater fisheries? ▪ Will the action enhance aquatic, transitional and terrestrial ecosystems? ▪ Does the action provide opportunities for habitat creation or restoration? ▪ Is the action likely to affect ancient woodland, Section 41 of the NERC act habitats and species of principal importance for the purpose of conserving biodiversity? ▪ Will the action affect any habitats that support legally protected species or species of conservation concern? ▪ Is there a possibility for INNS to be spread/introduced or for algal blooms to occur?	Drought Plan information EARs: ▪ significance of effects on environmental features assessment. ▪ WFD status ▪ hydrological assessment Conservation Objectives and Supplementary Advice documents for designated sites HRA Screening WFD Report Natural England's IRZs assessment for SSSIs
Water	To maintain the quality of surface water and groundwater bodies, including meeting WFD objectives for water chemistry and supporting the objectives of groundwater-dependent sites. To maintain surface water and groundwater flows and quantity.	▪ Will the action affect surface water quality or quantity? ▪ Will the action affect ground water quality or quantity? ▪ Is the action likely to contribute to or conflict with the achievement of WFD objectives? ▪ Will the action affect wetlands and Groundwater Dependent Terrestrial Ecosystems?	Drought Plan information EARs: ▪ WFD status ▪ water quality assessment ▪ hydrological assessment

SEA topic	SEA objectives	Indicator questions	Source of information
	To meet WFD objectives and support the achievement of environmental objectives set out in River Basin Management Plans (RBMPs). To increase water efficiency and increase resilience of water supplies and natural systems to droughts.	▪ Will the action affect raw water quality? ▪ Will the action comply with flow targets? ▪ Does the action provide a reliable and sustainable water supply which meets changing demand? ▪ Will the action protect and enhance the environmental resilience of the water environment to drought?	WFD Report
Soil	To protect geological and geomorphological features, and the functionality and quality of soils, including the protection of high-grade agricultural land.	▪ Will the action affect high grade agricultural land? ▪ Will the action prevent soil erosion and retain soil stocks as a natural resource? ▪ Is the action likely to affect geodiversity, including SSSIs of geological importance?	Spatial information for geological SSSIs EARs geomorphological assessment
Air	To reduce and minimise air emissions during operation.	▪ Is the action in an AQMA? ▪ Will the action affect local air quality?	Drought Plan information Spatial information for AQMAs
Climatic factors	To minimise or reduce embodied and operational carbon and greenhouse gas emissions. To introduce climate mitigation where required and improve the climate resilience of assets and natural systems to the threats of climate change.	▪ Will the action affect carbon or other greenhouse gas emissions? ▪ Does the action include measures to improve resilience to climate change and drought? ▪ Will the action create catchment resilience to drought?	Drought Plan information
Population and human health	To maintain the health and wellbeing of the local community, including economic and social wellbeing. To secure resilient, high quality, sustainable and affordable water supplies over the long term for the health and wellbeing of the community.	▪ Does the action promote water efficiency and encourage a reduction in water consumption? ▪ Will the action secure resilient water supplies for the health and wellbeing of customers?	Drought Plan information EARs

SEA topic	SEA objectives	Indicator questions	Source of information
	To connect customers to the natural environment, provide education or information resources for the public.		
	To maintain the water environment for other users including recreation, tourism and navigation.		
Historic environment	To conserve and protect the historic environment and heritage assets, and their settings, including archaeologically important sites.	▪ Will the action affect designated, non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments or other non-designated historic assets? ▪ Will the action affect the setting and/or significance of a historic asset? ▪ Will the action affect archaeology (including unknown archaeology)? ▪ Will the action alter the hydrological conditions of water-dependent heritage assets, including organic remains?	EAR Archaeology assessment and spatial information
Landscape	To conserve and protect landscape and townscape character and visual amenity.	▪ Will the action have an effect on the character of the landscape, townscape or seascape, including tranquillity and views? ▪ Will the action protect and enhance designated landscapes and features?	EAR Landscape assessment and spatial information
Material assets	To reduce, and make more efficient, the consumption of resources, and minimise the generation of waste.	▪ Will the action reuse existing infrastructure? ▪ Will the action minimise the use of resources and generation of waste? ▪ Will the action affect other services or assets?	Drought Plan information
	Avoid adverse effects on built assets and infrastructure		

5.2.1 Primary Assessment

The appraisal framework set out in Table 5.4 was used to assess how each of our drought actions, and any alternatives, perform against the SEA objectives. The outcomes of this assessment have informed the development of our Drought Plan, particularly the selection and phasing of measures for inclusion.

Our framework comprises several key components: the SEA topics and their associated objectives, supported by indicator questions that guide the evaluation of each action. Throughout the assessment, we provided commentary and analysis to explain how each action interacts with the SEA objectives, with reference to these indicator questions.

We undertook the assessment on the basis that standard best practice (referred to as embedded mitigation in our appraisal) would be applied during implementation of drought actions, including predefined monitoring and mitigation measures where relevant. The assessment therefore identifies the likely residual effects after application of embedded and additional mitigations. Where significant effects are identified, the SEA framework allows for the identification and refinement of additional, action-specific mitigation measures following assessment, informed by monitoring results and further plan-level scrutiny. This approach ensures that the significance ratings represent residual effects at the plan level, while retaining flexibility to develop further mitigation necessary, consistent with the ODPM Practical Guide to the SEA Directive and its transposition through Regulation 12 of the Environmental Assessment of Plans and Programmes Regulations 2004.

We categorised the magnitude of effect as low, medium, or high and applied colour-coding to support consistent interpretation. In making these judgements, we considered key characteristics such as the scale of impact, the level of certainty, and the duration and permanence of the effects, in line with the criteria for determining significance set out in the SEA Regulations (Part 2, Regulation 9(2a) and Schedule 1). The sub-criteria for each characteristic are provided in Table 5.2.

Duration was defined as follows: short-term effects last up to six months; medium-term effects extend from six months to two years; and long-term effects persist for more than two years. However, the length of time over which an effect is experienced by different receptors may vary. Therefore, professional judgement is applied, and explanatory notes are provided where relevant. For example, for groundwater-dependent sites, the duration of effects is influenced by recharge rates, meaning that the timeframe for recovery can differ significantly from surface water or terrestrial receptors.

Table 5.2 Characteristics of effect

Scale (implications of effect	Certainty (that effect will occur)	Duration (length of time over which effect will be present)	Permanence (lasting of effect)
Local Regional National	Low Moderate High	Short-term Medium-term Long-term	Temporary Permanent

We also assessed the value/sensitivity of the affected receptors using low, medium, or high ratings, as shown in Table 5.3, supported by colour-coding for ease of interpretation. Table 5.3 was used to inform the determination of residual effects, reflecting the impacts expected to remain once embedded mitigation and any additional mitigation have been applied. Residual effects were assigned using a qualitative scale ranging from beneficial (minor, moderate, major) to adverse (minor, moderate, major), with neutral used where effects were negligible or absent.

The datasets used, together with the definitions for the scale of effect, are provided in Appendix E and are consistent with those adopted for our WRMP24 SEA assessment. Residual adverse and beneficial effects were identified and recorded separately to support transparency and clarity in our Drought Plan decision-making.

Table 5.3 Residual effects matrix combining magnitude of effect and receptor value/sensitivity

Magnitude of effect	Value/sensitivity					
	Low		Medium		High	
High loss or change to receptor(s)	Minor adverse	-	Moderate adverse	--	Major adverse	---
Medium loss or change to receptor(s)	Minor adverse	-	Moderate adverse	--	Moderate adverse	--
Low loss or change to receptor(s)	Minor adverse	-	Minor adverse	-	Moderate adverse	--
No impact or impact does not affect	Neutral	0	Neutral	0	Neutral	0
Low enhancement to receptor(s)	Minor beneficial	+	Minor beneficial	+	Moderate beneficial	++
Medium enhancement to receptor(s)	Minor beneficial	+	Moderate beneficial	++	Moderate beneficial	++
High enhancement to receptor(s)	Minor beneficial	+	Moderate beneficial	++	Major beneficial	+++
Value/sensitivity of receptors Low value/sensitivity receptors(s) = locally important and/or resilient to loss/condition change and/or limited capacity for enhancement Medium value/sensitivity receptor = regionally important and/or with some resilience or capacity to accommodate loss or condition change or capacity for enhancement High value/sensitivity receptor = nationally important and/or with very limited resilience to loss or condition change or substantial capacity for enhancement						

Table 5.4 Example SEA appraisal framework table (biodiversity, flora and fauna provided as an example)

SEA topic	Proposed SEA objectives	Assessment questions	Potential residual effect on sensitive receptors commentary	Scale of effect	Certainty of effect	Duration of effect	Permanence of effect	Magnitude of effect	Value / Sensitivity of receptor	Embedded mitigation measures	Additional mitigation measures	Residual adverse effect significance	Residual beneficial effect significance
E.g. Biodiversity, Flora and Fauna	*To protect and enhance biodiversity, ecological functions, capacity and habitat connectivity, including protecting designated sites and their qualifying features, priority species and priority habitats.*	▪ *Is the action likely to affect the conservation status of any internationally, nationally or locally designated sites?* ▪ *Is the action likely to contribute to or conflict with the targets and conservation objectives for designated sites?* ▪ *Will the action protect and enhance aquatic habitats and species, including freshwater fisheries?* ▪ *Will the action enhance aquatic, transitional and terrestrial ecosystems?*											
	To provide opportunities for habitat creation or restoration.												
	To avoid introducing or spreading and, where feasible, manage INNS.												

SEA topic	Proposed SEA objectives	Assessment questions	Potential residual effect on sensitive receptors commentary	Scale of effect	Certainty of effect	Duration of effect	Permanence of effect	Magnitude of effect	Value / Sensitivity of receptor	Embedded mitigation measures	Additional mitigation measures	Residual adverse effect significance	Residual beneficial effect significance
	To meet WFD objectives relating to biodiversity and targets and conservation objectives of designated sites.	▪ *Does the action provide opportunities for habitat creation or restoration?* ▪ *Is the action likely to affect ancient woodland, Section 41 of the NERC act habitats and species of principal importance for the purpose of conserving biodiversity?* ▪ *Will the action affect any habitats that support legally protected species or species of conservation concern?* ▪ *Is there a possibility for INNS to be spread/introduced or for algal blooms to occur?*										

5.2.2 Secondary, Cumulative and Synergistic Environmental Effects

Schedule 2(6) of the SEA Regulations requires us to assess: *"The likely significant effects on the environment, including short, medium and long-term effects, permanent and temporary effects, positive and negative effects, and secondary, cumulative and synergistic effects…"*. These terms are defined as follows**:**

- **Secondary or indirect effects** - effects that do not arise directly from the plan but occur as a consequence of it, (e.g. an abstraction that may alter local groundwater levels and thus affects the ecology of a nearby wetland)
- **Cumulative effects** - effects that arise where multiple actions or pressures combine. This may include several nearby groundwater sources that each have an individual insignificant effect but collectively reduce river flows, or several individual effects (e.g. traffic disruption) that combine to create a more significant overall impact
- **Synergistic effects** - effects that interact in a way that produces a greater overall impact than the sum of the individual effects. These often occur where habitats, resources or communities are approaching capacity. For example, a wildlife habitat may become progressively fragmented with limited effects on a species until the final fragmentation reduces the habitat below the threshold needed to sustain the species.

In line with the ODPM Practical Guide, we adopt the term 'cumulative effects' as an umbrella term that includes secondary, cumulative and synergistic effects. Our SEA of the Drought Plan includes cumulative effects assessment at each assessment level, as described in the following sections: the drought action level assessment and the overall Drought Plan assessment.

We also identify situations where drought actions are mutually exclusive, meaning that only one of the actions would be implemented. This is highlighted within the action-level assessment to ensure clarity on potential interactions. At the Drought Plan level, our cumulative effects assessment also considers the influence of other plans, programmes and projects, considering both spatial and temporal proximity.

We use a matrix, similar to the example in Figure 5.1, to support our consideration of interactions between drought actions or programmes. When assessing these effects, we also take into account other factors that may influence the receiving environment over the short, medium and long term.

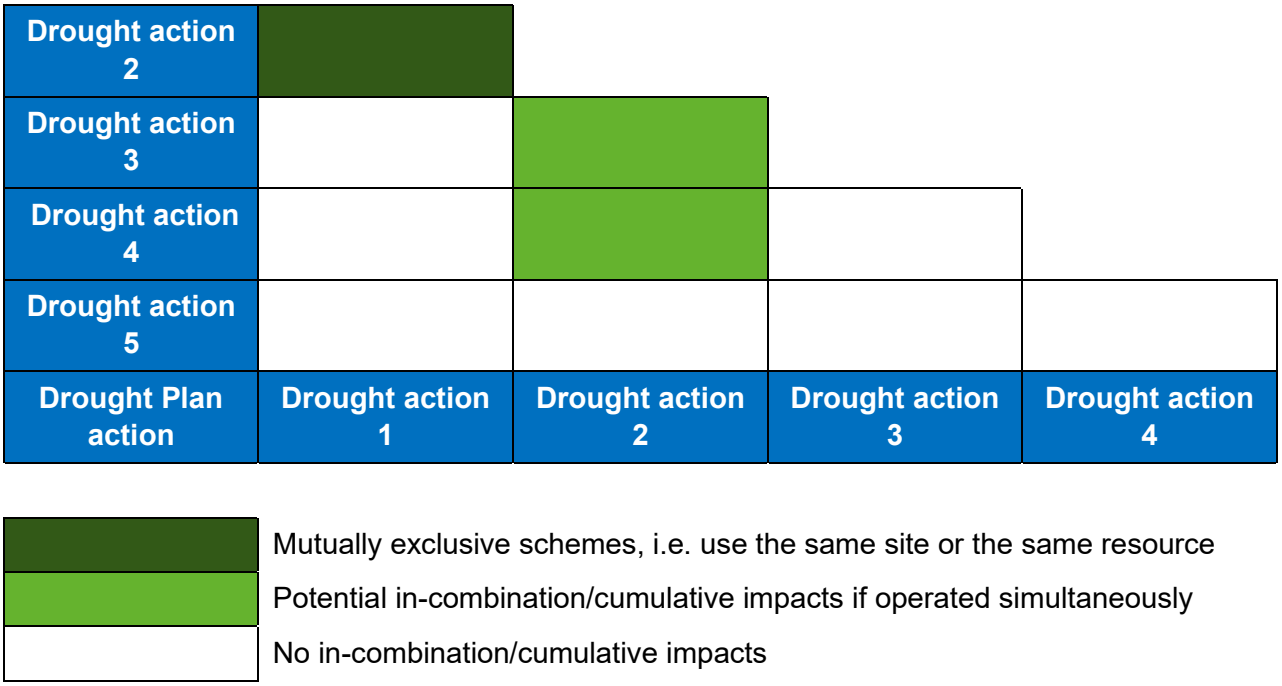

Figure 5.1 Example cumulative effects assessment matrix

To comply with the requirements of the SEA Regulations, we assessed the cumulative effects between our Drought Plan and other relevant plans, programmes and projects, including our WRMP24 and the WRMPs and Drought Plans of neighbouring water companies.

Our SEA included the following cumulative assessments:

- **Simultaneous implementation of drought actions**: We evaluated cumulative effects that could arise if multiple drought actions were implemented at the same time, recognising that in practice drought actions are expected to be introduced progressively and sequentially, building on each drought level as conditions deteriorate. The assessment therefore reflects a precautionary worst-case scenario in which actions from different drought level may overlap for a period. We also considered the potential for mutually exclusive actions, such as those dependent on the same resource or site, which would not be taken concurrently.
- **Interaction with other WRMPs and Drainage and Wastewater Management Plans (DWMPs)**: We assessed cumulative effects between our Drought Plan and our WRMP24, as well as the WRMPs, DWMPs and Drought Plans of neighbouring water companies, the Environment Agency's Drought Plans, and other relevant water management strategies. This included consideration of the potential for neighbouring companies to implement measures concurrently under their respective Drought Plans, and interactions with DWMPs that could influence water quality, river flows or infrastructure capacity
- **Evaluation of cumulative effects with the Water Resources East Regional Plan**: We considered how regional water resource planning and drought management strategies might align with, or potentially conflict with, our Drought Plan. This assessment included the potential for simultaneous implementation of measures across the region that could give rise to cumulative environmental impacts

- **Assessment of cumulative effects with Strategic Resource Options (SRO) schemes**: We considered how our drought actions might interact with the planning, construction or operation of SROs. This included evaluating potential overlapping environmental impacts, particularly where actions and SRO schemes draw upon shared resources, infrastructure or geographic areas
- **Interaction with broader programmes and projects**: We also assessed cumulative effects between the Drought Plan and other relevant strategic plans and projects likely to be active during the Drought Plan period. These included Local Plans, land-use and development plans, RBMPs, and major infrastructure projects such as the Cambridge Wastewater Treatment Plant Relocation, Great Yarmouth Third River Crossing and the Sizewell C Project.

A key limitation in assessing cumulative or in-combination effects is the inherent unpredictability of which measures will be implemented during any given drought event. While we can assess individual environmental effects, it is not always possible to fully determine cumulative effects for all potential future drought scenarios.

To address this, we adopted a precautionary approach in our cumulative assessments, assuming a reasonable worst-case scenario in which multiple drought actions could be implemented simultaneously. Our primary focus was on spatial proximity and the potential for impacts on shared receptors, such as the same designated site or river reach.

Given the uncertainties surrounding the timing and combination of drought actions, our SEA findings, and the associated EARs, will require review during or following an actual drought event. At that stage, we will undertake an updated cumulative assessment based on the specific measures proposed, with reference to the cumulative evaluations documented in this Environmental Report.

5.3 Limitations of the Assessment

SEA is a planning-level assessment intended to highlight potential environmental concerns at a strategic scale. Where specific limitations or outstanding issues are identified, we describe these in the SEA appraisal tables for the relevant drought action. Further detailed assessment is provided through the EARs which are required as part of preparing to implement any specific drought action, so that we can take account of prevailing environmental conditions and any new evidence available at that time.

5.3.1 Linked Environmental Assessments

Habitats Regulations Assessment

The HRA standalone assessment is a statutory requirement in its own right, but it also provides important evidence to support our SEA objective on biodiversity. The stages of the HRA include the test of Likely Significant Effects (LSE), followed by Appropriate Assessment (AA) where required, and the consideration of alternatives if the AA concludes that effects on site integrity cannot be adequately mitigated.

We have undertaken an HRA in parallel with SEA Environmental Report to inform the development of our Drought Plan, providing a detailed understanding of the potential

effects of our drought actions on designated European Sites and any associated compensatory habitat. The findings from our HRA have been used to inform our SEA assessment of the drought actions within our Drought Plan.

Water Framework Directive Assessment

The WFD standalone assessment is a statutory requirement under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 and also provides evidence to support our SEA objective on water quality. We have undertaken a WFD compliance assessment in parallel with SEA Environmental Report to identify any potential risks that our Drought Plan may pose to WFD water bodies, and the findings incorporated into the Drought Plan to demonstrate compliance with WFD Regulations and alignment with RBMPs objectives.

Our assessment follows a structured screening, scoping and impact-assessment approach to ensure that any risks to ecological, chemical and hydromorphological elements are identified early and can be mitigated appropriately. This methodology draws on industry and regulatory guidance to ensure the assessment is robust, proportionate and fit for purpose.

Invasive Non-Native Species

We have screened our drought actions for any risk of spreading INNS, and where applicable we have identified appropriate mitigation measures.

Biodiversity No Net Loss

We have also screened our drought actions for any potential loss of habitats or changes in river condition. As no construction or operational land is required and all drought actions are temporary, a Biodiversity Net Gain assessment is not included.

6 ASSESSMENT OF DROUGHT PLAN ACTIONS

6.1 Introduction

SEA regulations require an environmental report on a proposed plan or programme to identify, describe and evaluate the likely significant effects of implementing reasonable alternatives as well as for the proposed plan or programme. The assessments undertaken for alternative and for the selected Drought Plan actions are outlined below.

6.2 Consideration of Alternatives

As explained in Chapter 2 Drought Plans are operational tactical plans with a range of measures provided to be implemented to address specific conditions arising during a particular drought event. Each event is unique in severity, timing, area affected, and duration. These factors require different responses in terms of the drought actions to be implemented, and the sequence in which combinations of actions are applied.

Our Drought Plan and WRMP are aligned but serve different purposes, with the Drought Plan providing a basis for operational short-term responses and the WRMP being strategic and covering medium to long term planning. Both plans use a structured options or actions appraisal process covering both supply and demand-side actions. The WRMP process also includes strategic alternative combinations of options for different scenarios. The process applied to the Drought Plan development is outlined in Chapter 2. This identified a wide range of possible actions to provide the unconstrained list (long list) of 80 demand side and 29 supply side actions which were screened to remove actions considered unlikely to meet drought needs or clearly likely to be unacceptable with potential for significant environmental effects that would be difficult to mitigate. This resulted in the constrained list (short list) of 58 demand side and 11 supply side actions which were considered further against a range of technical and environmental criteria to identify the proposed Drought Plan actions across the range action types and to cover the different levels of drought severity required to be addressed in a Drought Plan.

In addition, alternatives were compared as part of the environmental assessment of the proposed drought permit/order actions with a preferred action selected to take forward. These alternatives and assessments and are presented in the EARs providing the reasoning for action selection.

6.3 Assessment of Drought Actions against SEA Objectives

Assessment of the drought actions has been carried out in accordance with the methodology described in Chapter 5. The assessment was based on a qualitative six-point scale to describe the significance of effects. The colour coding represents a range from major adverse effect in dark red through to major beneficial effects in dark green as shown in Table 6.1. Appraisal framework assessment tables have been completed for each individual or group of drought actions and are presented in full in Appendix F. A summary of the assessment is presented in this chapter as colour-coded visual evaluation summary matrices (Table 6.2 and Table 6.3).

Table 6.1 Categorisation of significance of effects

Assessment Scale	Significance of Effect	Significance Classification
+++	Major Beneficial	Considered potentially significant
++	Moderate Beneficial	Considered potentially significant
+	Minor Beneficial	Not significant
0	Neutral	Not significant
-	Minor Adverse	Not significant
--	Moderate Adverse	Considered potentially significant
---	Major Adverse	Considered potentially significant
?	Uncertain	Not significant

6.4 Demand-side actions assessment findings

A visual summary of the findings of the SEA for each of the demand-side actions in our Drought Plan is provided in Table 6.2. The complete appraisal tables for each of the drought actions are provided in Appendix F. Overall, demand-side actions reduce pressure on water resources by lowering consumption or system losses. This helps to maintain river flows, protects sensitive habitats and strengthen ecological resilience during drought conditions. Effects across these actions are generally neutral, with no significant adverse effects. Minor short-term adverse effects identified include: localised disturbance to soils and temporary noise and traffic-related disruption (leakage detection and repair actions only); reduced system buffer capacity and resilience when operating at low storage levels, increasing supply disruption risk during droughts (network management action only); operational constraints from low storage levels or limited turndown at some legacy plants causing minor adverse effects on infrastructure resilience (minimum flows at WTWs and network management actions only); vehicle related emissions (leakage detection and repair and community education actions only), and likely inconvenience for some affected customer groups associated with certain actions.

These adverse effects are limited and are outweighed by the environmental and supply-security benefits delivered through reduced abstraction and more efficient water use. Many demand-side actions also improve operational efficiency and encourage long-term behavioural change, further enhancing drought and climate resilience. Government-led drought interventions are the only actions with the potential to deliver significant beneficial effects for water-environment objectives. In addition, government-led drought interventions and community education actions can deliver beneficial outcomes for population health and wellbeing.

Table 6.2 Visual summary of SEA outcomes for demand side actions

Action / Group of actions	Effect	SEA Objectives (sub-objectives are numbered beneath each topic, see Table 5.1 for full description)																				Commentary
		Biodiversity, Flora and Fauna				Water				Soil	Air	Climatic factors		Population and human health				Historic environment	Landscape	Material assets		
		1	2	3	4	1	2	3	4			1	2	1	2	3	4			1	2	
Leakage detection and repair	Adverse	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	-	0	0	0	0	Leakage repair causes minor, short-term impacts but no significant effects on habitats, water quality, heritage or recreation. Reduced leakage lowers abstraction, supporting flows and long-term emissions savings. The action maintains drought resilience and supply reliability, protects infrastructure, and reduces resource use despite generating some vehicle-related emissions.
	Beneficial	0	0	0	+	0	+	+	0	0	0	0	0	+	+	0	0	0	0	+	+	
Customer communications	Adverse	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	Customer communications have no significant environmental impacts but can reduce water demand, lower abstraction and benefiting sensitive habitats and flows. Emissions and other effects are negligible. The action supports supply security, raises awareness of water efficiency, and poses no risks to soil, air, heritage, landscape, or built assets.
	Beneficial	+	0	0	+	+	+	+	0	0	0	0	0	++	+	0	0	0	0	0	0	
Reduction in pressure	Adverse	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	Pressure reduction lowers leakage, bursts and abstraction, helping maintain flows, protect habitats and improve water quality. It slightly reduces energy use and carbon emissions, with negligible wider environmental impacts. Benefits include fewer service interruptions and reduced infrastructure damage, though temporarily lower pressure may affect some customers.
	Beneficial	+	0	0	+	+	+	+	+	0	0	+	0	+	0	0	0	0	0	0	+	
Water saving devices	Adverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Water-saving devices reduce demand and abstraction, benefiting flows, habitats and drought resilience while supporting long-term water efficiency and supply security. Environmental impacts are negligible, with no effects on soils, air, heritage, landscape or built assets. Minor carbon from communications is minimal, and no resource, INNS or recreation impacts are expected.
	Beneficial	+	0	0	+	+	+	+	+	0	0	0	0	++	+	0	0	0	0	0	0	
Community education	Adverse	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	Educational audits reduce water demand and abstraction, benefiting flows and sensitive habitats with negligible wider environmental impacts. Minor vehicle-related emissions occur, but behaviour change supports long-term water efficiency and awareness. No effects are expected on soils, heritage, landscape, recreation, INNS or built assets, and resource use is unchanged.
	Beneficial	+	0	0	+	+	+	+	0	0	0	0	0	++	+	0	0	0	0	0	0	

Action / Group of actions	Effect	SEA Objectives (sub-objectives are numbered beneath each topic, see Table 5.1 for full description)																				Commentary
		Biodiversity, Flora and Fauna				Water				Soil	Air	Climatic factors		Population and human health				Historic environment	Landscape	Material assets		
		1	2	3	4	1	2	3	4			1	2	1	2	3	4			1	2	
Gov led interventions	Adverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Government-led drought interventions reduce abstraction to protect environmental flows, providing benefits for biodiversity, habitats and WFD/RBMP objectives. By maintaining river and groundwater levels, they support water quality, improve water-use efficiency, and strengthen the resilience of public supplies and natural systems to droughts and climate pressures. As regulatory actions with no physical works, they do not have effects on soils, air quality, heritage, landscape or built assets, and only result in minor temporary behavioural or economic impacts.
	Beneficial	+	+	+	++	++	++	++	++	0	0	+	++	++	++	+	+	+	0	0	0	
Stop proactive flushing	Adverse	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	Stopping proactive flushing temporarily saves water and reduces abstraction but increases risks to customer satisfaction. Environmental and wider impacts are negligible due to the short duration, with no effects on habitats, INNS, soils, air, heritage, landscape, recreation or long-term resilience, though minor operational emissions may reduce slightly.
	Beneficial	0	0	0	0	0	+	0	0	0	0	+	0	0	0	0	0	0	0	0	0	
Optimising water supply	Adverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Optimising the supply system improves efficiency, reduces abstraction from sensitive sources, supports flows and WFD objectives, and strengthens drought and climate resilience. With no construction or land-take, impacts on habitats, soils, air, heritage, landscape, recreation and INNS are negligible. The measure lowers energy use, enhances supply reliability and benefits resource efficiency.
	Beneficial	+	0	0	+	0	+	+	+	0	0	+	+	+	+	0	+	0	0	+	+	
Minimise minimum flows at WTWs	Adverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	Lowering WTWs minimum throughout reduces abstraction during low flows, supporting environmental resilience and drought protection with minor beneficial ecological benefits. It improves efficiency, reduces energy and chemical use, and protects sources, though low-rate operation can present challenges for some treatment processes. No notable effects on habitats, INNS, soils, landscape, or heritage.
	Beneficial	+	0	0	+	+	+	+	+	0	+	+	+	+	+	0	+	0	0	+	0	
Reduce Ships Watering	Adverse	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	Reducing ship watering cuts non-essential abstraction during drought, supporting environmental flows and improving ecological resilience. It offers substantial water savings with no habitat, INNS, air quality, carbon, landscape, or heritage effects. Benefits navigation and amenity, with only temporary inconvenience to port users and no long-term infrastructure impacts.
	Beneficial	+	0	0	+	+	+	+	+	0	0	0	+	+	0	0	+	0	0	0	0	

Action / Group of actions	Effect	SEA Objectives (sub-objectives are numbered beneath each topic, see Table 5.1 for full description)																				Commentary
		Biodiversity, Flora and Fauna				Water				Soil	Air	Climatic factors		Population and human health				Historic environment	Landscape	Material assets		
		1	2	3	4	1	2	3	4			1	2	1	2	3	4			1	2	
Removal of Statutory Exceptions on TUBs and NEUBs	Adverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Removal of TUBs/NEUBs exceptions reduces abstraction in sensitive periods, supporting flows and improving ecological resilience. It strengthens drought and demand-management performance with negligible carbon or air-quality effects. Risks relate to customer compliance and complaints, but improved flows benefit recreation, navigation, and priority habitats.
	Beneficial	+	+	0	+	+	+	+	0	0	0	+	+	+	0	0	+	0	0	0	0	
Management of SOP storage	Adverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SOP storage management reduces abstraction during sensitive periods, supporting flows, priority habitats, and WFD/RBMP objectives. It offers resilience benefits during drought, with negligible air-quality or carbon effects. Sensitive to demand spikes and turbidity. Improved flows benefit recreation and navigation, with no landscape or heritage impacts.
	Beneficial	+	0	0	+	+	+	+	0	0	0	0	+	0	0	0	+	0	0	0	0	
Seasonal Tariffs	Adverse	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	Seasonal tariffs reduce abstraction during low-flow periods, supporting ecological resilience and WFD/RBMP flow objectives. They strengthen drought resilience and promote long-term behavioural change, with minor energy and chemical savings. Risks relate to affordability for vulnerable customers, but benefits include reduced peak demand and improved recreational flows.
	Beneficial	+	0	0	+	0	+	+	+	0	0	+	+	0	+	0	+	0	0	+	+	
Network Management	Adverse	0	0	0	0	0	0	0	-	0	0	0	-	-	-	0	0	0	0	0	-	An internal operational action with no physical works and no effects on abstraction, discharge, hydrology, water quality, ecology, WFD/RBMP objectives, or designated sites. It provides a minor beneficial effect by providing short-term operational flexibility to manage demand variability; however, operating at low storage levels reduces buffer capacity, resulting in minor adverse effects on supply reliability, infrastructure resilience, climate resilience, and community wellbeing.
	Beneficial	0	0	0	0	0	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0	

6.5 Supply-side actions assessment findings

A visual summary of the findings of the SEA for each of the supply-side actions is provided in Table 6.3. The complete appraisal tables for each drought action are presented in Appendix F. Overall, supply-side actions are not anticipated to result in significant adverse effects on river flows, water quality, biodiversity and WFD objectives, as they involve redistributing abstraction, supplementing flows or reducing pressure on sensitive sources during drought conditions. These actions operate largely within existing infrastructure and licensing constraints and generally result in neutral environmental effects, with no significant effects. The only exception is the EOETS action, which has the potential to deliver significant beneficial effects due to its regional scale.

Minor adverse effects associated with supply-side actions are typically limited to traffic emissions, temporary localised hydraulic or water-quality changes, or small increases in operational energy use. Most actions provide minor beneficial effects such as enhanced drought and climate resilience, protection of designated sites, support for reliable public supply and improved resource efficiency.

The Coldfair Green drought action was assessed as having a number of minor adverse effects against SEA objectives, relating to short-term changes to flows, water levels, water quality and some wetland and riparian habitats. However, these effects are temporary and do not lead to deterioration in WFD status, and are outweighed by the action's benefits, particularly in strengthening drought resilience and maintaining reliable public water supplies.

In terms of recovery, the assessment indicates that the hydrological and ecological effects associated with the Coldfair Green drought action are temporary and reversible. Groundwater levels and Hundred River flows are expected to recover once the action ceases and seasonal recharge resumes, consistent with observations from the 2022–23 drought where the Crag aquifer and river system returned to normal seasonal ranges following rainfall. Hydraulic and water-quality changes, while noticeable during severe low-flow conditions, remain within existing WFD class boundaries and are predicted to return to baseline levels post-drought. Biodiversity effects across wetland and riparian habitats, including reedbeds, coastal and floodplain grazing marsh, fens, water vole, otter, bats, kingfisher, priority bird species and macroinvertebrates, are assessed as localised, short-term and reversible, with habitats expected to recover within one to two hydrological seasons once flows normalise. Post-drought monitoring set out in the Environmental Monitoring Plan will verify the return of flows, water quality and ecological conditions to baseline.

Table 6.3 Visual summary of SEA outcomes for supply side actions

Action	Effect	SEA Objectives (sub-objectives are numbered beneath each topic, see Table 5.1 for full description)																		Commentary
		Biodiversity, Flora and Fauna				Water				Soil	Air	Climatic factors		Population and human health				Historic environment	Landscape	Material assets		
		1	2	3	4	1	2	3	4			1	2	1	2	3	4			1	2	
Raw water WTW Optimisation	Adverse	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	Raw water and WTW optimisation protect sensitive rivers by redistributing abstraction within existing limits, supporting flows, water quality, biodiversity and WFD objectives during drought. As an entirely operational measure, it has no habitat, soil, landscape, heritage or waste impacts, minor carbon or air-quality effects, and enhances drought and climate resilience.
	Beneficial	+	+	0	+	+	+	+	+	0	0	0	+	+	+	0	+	0	0	0	0	
Coordination planning	Adverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Coordinating planned outages keeps key sources and treatment works available, preventing reactive abstraction increases on sensitive rivers. As a non-physical, operational measure, it poses no habitat, heritage, landscape, soil, INNS or quality risks, while supporting WFD objectives, stable water quality, system resilience, efficient asset use and reliable public supply during drought.
	Beneficial	0	+	0	+	0	+	+	+	0	0	0	+	+	+	0	+	0	0	0	0	
EOETS	Adverse	0	0	-	0	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	The EOETS supports drought resilience by maintaining flows, water quality and ecological function in receiving catchments while protecting donor systems through strict controls. It avoids habitat harm, manages invasive-species risks, enhances regional water security and recreation, and operates sustainably with limited environmental, landscape, heritage or carbon impacts.
	Beneficial	++	0	0	+	+	++	+	++	0	0	0	+	+	+	0	+	0	0	+	+	
Langford recycling	Adverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	The Langford Recycling Plant supports Chelmer flows and water quality during drought using high-standard treated effluent, protecting habitats, WFD status and designated sites without altering INNS risk or groundwater. Operating entirely within existing infrastructure, it has negligible environmental impacts while enhancing resource efficiency, drought resilience and recreational conditions.
	Beneficial	+	+	0	+	+	+	+	+	0	0	0	+	+	+	0	+	0	0	0	0	
WAGS	Adverse	0	0	0	0	0	0	0	0	-	-	-	0	-	0	0	0	0	0	-	0	WAGS supports river flows during drought, protecting habitats, water quality and WFD status while safeguarding groundwater through strict licensing and monitoring. It has negligible INNS, soil, air and carbon impacts, enhances drought resilience and recreation, and integrates sensitively with heritage, landscape, infrastructure and resource-efficiency requirements.
	Beneficial	+	+	+	+	+	+	+	+	0	0	0	+	0	+	0	+	0	0	0	0	

Action	Effect	SEA Objectives (sub-objectives are numbered beneath each topic, see Table 5.1 for full description)																				Commentary
		Biodiversity, Flora and Fauna				Water				Soil	Air	Climatic factors		Population and human health				Historic environment	Landscape	Material assets		
		1	2	3	4	1	2	3	4			1	2	1	2	3	4			1	2	
SAGS	Adverse	0	0	0	0	0	0	0	0	-	-	-	0	-	0	0	0	0	0	-	0	SAGS sustains River Stour flows during drought, protecting habitats, water quality, WFD status and groundwater through strict licensing and monitoring. It has negligible INNS, soil, air and carbon impacts, boosts drought and climate resilience, supports water supplies and recreation, and integrates sensitively with heritage, landscape, infrastructure and resource-efficiency needs.
	Beneficial	+	0	+	+	+	+	+	+	0	0	0	+	0	+	0	+	0	0	0	0	
GOGS	Adverse	0	0	0	0	0	0	0	0	-	-	-	0	-	0	0	0	0	0	-	0	GOGS sustains Great Ouse flows during drought, protecting habitats, water quality, WFD status and groundwater through strict licensing and monitoring. It has negligible INNS, soil, air and carbon impacts, enhances drought and climate resilience, supports water supplies and recreation, and integrates sensitively with heritage, landscape, infrastructure and resource-efficiency requirements.
	Beneficial	+	0	+	+	+	+	+	+	0	0	0	+	0	+	0	+	0	0	0	0	
Tankering	Adverse	-	0	0	0	-	0	0	0	-	-	-	0	0	0	0	0	-	-	-	-	Tankering is a temporary drought measure with no habitat, construction or WFD risks, though traffic, emissions, noise and spill risks cause minor short-term impacts. It reduces pressure on stressed sources, supporting flows and recreation, but is carbon-intensive and offers no long-term resilience, landscape, heritage or resource-efficiency benefits.
	Beneficial	0	0	0	+	0	+	0	0	0	0	0	+	+	+	0	+	0	0	0	0	
Transfer Thames to Chigwell	Adverse	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	The Thames–Chigwell bulk transfer provides an alternative drought source, reducing abstraction pressure on sensitive Essex rivers and aquifers while avoiding new ecological, INNS, soil, heritage or landscape risks. Using existing infrastructure, it maintains flows, water quality, WFD compliance, supply reliability and drought resilience, with only minor operational energy impacts during dry periods.
	Beneficial	+	0	0	+	0	+	+	+	0	0	0	+	+	+	0	+	0	0	+	+	
Emergency Transfer	Adverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	The emergency transfer uses treated potable water and operate only when AWS headroom exists, keeping abstraction within existing licences and regulatory controls and causing no change to Hartismere flows or environmental pressures. With no physical works, pollution pathways, or INNS risks, and negligible energy and carbon impacts, the measure does not affect WFD or RBMP objectives. Overall, it provides a conditional emergency supply that improves drought resilience, reduces the risk of severe restrictions, and protects public health and system resilience.
	Beneficial	0	0	0	0	0	0	0	+	0	0	0	+	+	+	0	+	0	0	+	+	

Action	Effect	SEA Objectives (sub-objectives are numbered beneath each topic, see Table 5.1 for full description)																				Commentary
		Biodiversity, Flora and Fauna				Water				Soil	Air	Climatic factors		Population and human health				Historic environment	Landscape	Material assets		
		1	2	3	4	1	2	3	4			1	2	1	2	3	4			1	2	
Denver HoF	Adverse	0	0	0	0	0	0	0	0	0	-	-	0	0	-	0	-	0	0	0	0	The drought action causes only negligible hydrological and geomorphological changes in the Great Ouse and minor, temporary ecological effects downstream, including short-term prey or foraging impacts for birds, fish and mammals, small water-quality dilution shifts, and limited INNS opportunities. Estuarine habitats, designated sites, landscapes, navigation, heritage and protected rights remain unaffected.
	Beneficial	0	0	0	0	0	0	0	0	0	0	0	+	+	0	0	+	0	0	0	0	
Coldfair Green	Adverse	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	0	0	0	0	0	Drought action causes temporary, local hydraulic and habitat changes on the Hundred River (Q95 ~-60%, medium depth/velocity/wetted-perimeter impacts), short-term water-quality dilution shifts (possible phosphate class change), groundwater drawdown (~615 m radius), minor INNS risk and geomorphic deposition. These effects result from the increased groundwater extraction. Effects are however regulated, monitored, reversible; minimal air/carbon, no heritage/landscape/navigation impacts; public supply resilience maintained. These findings are consistent with the conclusions of the WFD assessment presented in Section 6.6.2, which confirms that the action will not cause deterioration or compromise any water body's ability to meet its environmental objectives.
	Beneficial	0	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0	0	0	+	0	

6.6 Findings from Linked Environmental Assessments

6.6.1 Habitats Regulations Assessment

Our Stage 1 HRA screening[43] for our Drought Plan 2027 shows that all demand-side actions can be ruled out for Likely Significant Effects, as none have pathways to affect European Sites. For supply-side actions, three were identified for further assessment. All other actions were screened out due to either being operational optimisation actions operating within existing consents, or because they relate to operation within existing licence conditions, which is subject to environmental assessment by regulators at licence issue and renewal. Tankering at Hartismere was considered to have no hydrological link to any European sites, and although Coldfair Green action has a pathway to two sites via the Hundred River, the predicted flow change is ecologically negligible and does not affect site integrity. At Denver, while several European Sites are hydrologically connected, modelling shows that changes in freshwater inflow and hydrodynamics are <0.06% and insignificant relative to the tidal-dominated systems of the lower Great Ouse and the Wash.

Based on this evidence, we concluded that Likely Significant Effects can be ruled out for all European Sites within the hydrological zones of influence of our Drought Plan drought actions.

6.6.2 Water Framework Directive Assessment

Our Stage 1 WFD assessment confirms that all demand-side actions can be screened out, as they do not interact with water bodies and therefore pose no risk to WFD objectives[44]. For supply-side actions, we identified two actions, Coldfair Green and the Denver HoF, that may pose risks to WFD status due to potential effects on groundwater levels, river flows, ecological communities, hydromorphology, and water quality.

Our WFD assessments for both actions demonstrate that neither will result in deterioration of WFD status or prevent water bodies from meeting their objectives. For Denver HoF, modelling shows only negligible, short-term changes to flows, water levels and water quality in the Ely Ouse, with no measurable downstream effects; all designated sites and downstream water bodies were therefore scoped out[45]. For Coldfair Green, the proposed ~10% increase in abstraction will not alter the WFD status of the Waveney and East Suffolk Chalk & Crag groundwater body or the Hundred River, with all biological, hydromorphological and physico-chemical effects predicted to be minor, short-term and

[43] Essex & Suffolk Water (ESW) (2025). ESW Drought Plan 2027 Habitats Regulations Assessment Screening Report. WN025_0000-JAC-ZZ-ZZ_000-DOC-TE-0002.
[44] Essex & Suffolk Water (ESW) (2025). ESW Drought Plan 2027 Strategic Water Framework Directive (WFD) Report. WN025_0000-JAC-ZZ-ZZ_000-DOC-TW-0002.
[45] Essex & Suffolk Water (ESW) (2026). ESW Drought Plan 2027 Stage 2 Water Framework Directive (WFD) Report - Denver Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-W-0003.

reversible following the cessation of the drought action[46]. No designated sites, including Sandlings SPA or Leiston–Aldeburgh SSSI, are expected to experience hydrological or water-quality change.

Overall, our WFD assessments confirm that both drought actions remain fully compliant with WFD requirements, and that the Drought Plan will not cause deterioration or compromise any water body's ability to meet its environmental objectives.

[46] Essex & Suffolk Water (ESW) (2026). ESW Drought Plan 2027 Stage 2 Water Framework Directive (WFD) Report – Coldfair Green Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-W-0004.

7 CUMULATIVE ASSESSMENT

As presented in Chapter 5.2.2, the term ‘cumulative effects’ used in this section is an umbrella term that includes secondary, cumulative and synergistic effects. The cumulative effects assessment for our Drought Plan was done for the drought action level assessment and for the overall Drought Plan assessment. At the Drought Plan level, our cumulative effects assessment also considers the influence of other plans, programmes and projects, considering both spatial and temporal proximity.

7.1 Cumulative effects within the Drought Plan

Drought actions would be introduced progressively and sequentially, beginning with measures that have the least potential impact on customers and the environment, and escalating through successive drought levels only as conditions continue to deteriorate. In accordance with the SEA methodology presented in Section 5.2.2, cumulative effects have been assessed on a precautionary worst-case basis, assuming that actions from different drought levels could operate concurrently. Our Drought Plan does not include any drought actions that are mutually exclusive (see Table 7.1), and all actions may be implemented independently where required. Table 7.1 also demonstrates that there is the potential for cumulative effects arising from the combined implementation of all demand-side and supply-side drought actions.

Table 7.2 presents the progressive cumulative effects across drought levels from Level 0 to Level 3b, reflecting the combined effects of all demand-side and supply-side actions in operation as drought worsen. The assessment shows that most cumulative effects are neutral across all drought levels. As drought severity increases, the proportion of neutral effects reduces, with a corresponding increase in minor adverse effects, particularly at higher drought levels. However, beneficial effects remain broadly consistent across all drought levels, and no significant cumulative effects are identified.

Across Drought Levels 0 to 3b, demand side actions are designed to build sequentially as drought severity increases, resulting in a cumulative reduction in water demand and abstraction pressure. Early actions including customer communications, leakage detection and repair, network optimisation, and water efficiency initiatives establish a baseline of reduced consumption and improved system efficiency. As drought conditions intensify, these actions are supplemented by progressively stronger measures, including appeals for restraint, TUBs, and NEUBs.

When considered cumulatively, these demand-side actions are expected to:

- Reduce overall water demand, thereby lowering abstraction volumes from surface water and groundwater sources.
- Protect river flows, groundwater levels, and reservoir storage, particularly in water-stressed catchments
- Reduce pressure on environmentally sensitive receptors, including designated habitats and species reliant on adequate flow and water level conditions

- Enhance drought resilience, reducing the likelihood, duration, or severity of more extreme drought measures being required

These beneficial cumulative effects are further supported by supply-side actions, including optimisation of WTWs outputs, redistribution of supplies away from stressed sources, use of strategic storage, and deployment of alternative or emergency water supply actions where required. In combination with demand-side actions, supply-side actions contribute to a more efficient and resilient balance between water supply and demand during prolonged dry conditions.

Most supply-side actions assessed are geographically distinct and there is no spatial overlap between the identified zones of potential hydrological influence. As a result, there are no pathways through which adverse cumulative effects could occur between individual supply side actions, even under the conservative assumption that sequential drought actions could overlap for short periods during drought escalation.

Demand-side actions are implemented consistently across supply areas and function to reduce water demand and abstraction pressure rather than introduce additional pressures on the water environment. Measures such as customer communications, water efficiency initiatives, pressure management and government-led interventions do not result in direct physical disturbance to hydrological or ecological receptors; their effects are behavioural, temporary and reversible.

While some demand-side actions, particularly those involving progressive restrictions, may lead to short-term inconvenience for certain customer groups (i.e. high water-use households, non-household customers and customers with specific needs) reflected under population and human health objectives in Table 7.2, these effects are managed through proportionate, phased implementation. Restrictions are introduced progressively, allowing time for adaptation and avoiding sudden or overlapping changes. These social effects are short-term, reversible and do not interact spatially or temporally with supply side actions to give rise to significant adverse cumulative effects.

Table 7.1 Cumulative effects between drought actions

Drought actions	Leakage detection and repair	Customer communications	Reduction in pressure	Water saving devices	Community education	Government led interventions	Stop proactive flushing	Optimising water supply	Minimise minimum flows at WTW	Reduce ship watering	Removal of Statutory Exceptions TUBs and NEUBs	Management of SOP storage	Seasonal Tariffs	Network Management	Raw water WTW Optimisation	Coordination planning	EOETS	Langford recycling	WAGS	SAGS	GOGS	Tankering	Transfer Thames Water to Chigwell WTW	Emergency treated water from Anglian Water	Denver HoF
Customer communications																									
Reduction in pressure																									
Water saving devices																									
Community education																									
Government led interventions																									
Stop proactive flushing																									
Optimising water supply																									
Minimise minimum flows at WTW																									
Reduce ship watering																									
Removal of Statutory Exceptions TUBs and NEUBs																									
Management of SOP storage																									
Seasonal Tariffs																									
Network Management																									
Raw water WTW Optimisation																									
Coordination planning																									
EOETS																									
Langford recycling																									
WAGS																									
SAGS																									
GOGS																									
Tankering																									
Transfer Thames Water to Chigwell WTW																									
Emergency treated water from Anglian Water																									
Denver HoF																									
Coldfair Green																									

	Mutually exclusive schemes, i.e. use the same site or the same resource
	Potential in-combination/cumulative impacts if operated simultaneously
	No in-combination/cumulative impacts

Table 7.2 Cumulative effects of drought actions as drought severity increases (Levels 0 to 3b)

Drought Level	Biodiversity, Flora and Fauna								Water								Soil		Air		Climatic factors				Population and human health								Historic environment		Landscape		Material assets			
	To protect and enhance biodiversity, ecological functions, capacity and habitat connectivity, including protecting designated sites and their qualifying features, priority species and priority habitats.		To provide opportunities for habitat creation or restoration.		To avoid introducing or spreading and, where feasible, manage Invasive Non-Native Species (INNS).		To meet WFD objectives relating to biodiversity and targets and conservation objectives of designated sites.		To maintain the quality of surface water and groundwater bodies, including meeting WFD objectives for water chemistry and supporting the objectives of groundwater-dependent sites.		To maintain surface water and groundwater flows and quantity.		To meet WFD objectives and support the achievement of environmental objectives set out in River Basin Management Plans.		To increase water efficiency and increase resilience of water supplies and natural systems to droughts.		To protect geological and geomorphological features, and the functionality and quality of soils, including the protection of high-grade agricultural land.		To reduce and minimise air emissions during operation.		To minimise or reduce embodied and operational carbon and greenhouse gas emissions.		To introduce climate mitigation where required and improve the climate resilience of assets and natural systems to the threats of climate change.		To maintain the health and wellbeing of the local community, including economic and social wellbeing.		To secure resilient, high quality, sustainable and affordable water supplies over the long term for the health and wellbeing of the community.		To connect customers to the natural environment, provide education or information resources for the public.		To maintain the water environment for other users including recreation, tourism and navigation.		To conserve and protect the historic environment and heritage assets, and their settings, including archaeologically important sites.		To conserve and protect landscape and townscape character and visual amenity.		To reduce, and make more efficient, the consumption of resources, and minimise the generation of waste.		Avoid adverse effects on built assets and infrastructure	
	1		2		3		4		1		2		3		4						1		2		1		2		3		4						1		2	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Level 0	0	+	0	+	-	0	0	+	0	+	0	++	0	+	0	++	-	+	-	0	-	+	0	+	-	++	0	+	0	0	-	+	0	0	0	0	-	0	0	0
Level 1	-	+	0	0	-	0	0	+	-	+	0	+	0	+	0	++	-	0	-	0	-	0	0	0	-	++	0	+	0	0	-	+	-	0	-	0	-	0	-	0
Level 2	-	+	0	0	-	0	0	+	0	+	0	+	0	+	0	++	-	0	-	0	-	0	0	0	-	++	-	+	0	0	-	+	-	0	-	0	-	0	-	0
Level 3a	-	+	0	0	-	0	0	+	0	+	0	+	0	+	-	++	-	0	-	0	-	0	-	0	-	++	-	+	0	0	-	+	-	0	-	0	-	0	-	0
Level 3b	-	+	-	0	-	0	-	+	-	+	-	+	-	+	-	++	-	0	-	0	-	0	-	+	-	++	-	+	0	0	-	+	-	0	-	0	-	+	-	0

*A = Adverse effect; B = Beneficial effect

7.2 Habitats Regulations Assessment Cumulative Assessment

We have undertaken the first stage of the HRA process, Screening, on our Drought Plan actions. This has been carried out in parallel with the SEA and is reported separately in our HRA Screening Report[47]. The screening stage determines whether any actions have the potential for a Likely Significant Effect on the integrity of a European designated site. In-combination effects of our Drought Plan with WRMP24, and with other water companies' WRMPs and Drought Plans, were not considered likely to give rise to adverse effects on European designated sites and therefore no potential cumulative effect is anticipated.

7.3 Water Framework Directive Assessment Cumulative Assessment

Our Stage 2 WFD assessments for both the Denver HoF[48] and Coldfair Green[49] actions confirm that neither action will result in deterioration of WFD status or compromise the ability of any water body to meet its environmental objectives. For Denver, hydrological modelling shows negligible, short-term changes to flows, water levels and water quality, with no measurable downstream effects and all designated sites scoped out, indicating no mechanism for cumulative or in-combination impacts. For Coldfair Green, the proposed ~10% increase in abstraction similarly produces only minor, short-term and drought-limited effects on the Waveney & East Suffolk Chalk & Crag groundwater body and the Hundred River, with no hydrological or water-quality changes at designated sites. Taken together, the evidence demonstrates that both actions are fully compliant with WFD requirements, and neither presents a pathway for significant cumulative effects on surface or groundwater bodies and also are in geographically distinct areas.

7.4 Cumulative effects with existing relevant Programmes, Plans, Policies and Projects

We have undertaken a cumulative effects assessment to identify the potential cumulative effects of the actions within our Drought Plan along with the following plans and projects:

- Other water company Drought Plans
- WRMPs
  - Our WRMP24
  - Other water companies' WRMPs
- Other water companies' DWMPs

[47] Essex & Suffolk Water (ESW) (2026). Drought Plan 2027 Habitats Regulations Assessment Screening Report. WN025_0000-JAC-ZZ-ZZ_000-DOC-TE-0002.
[48] Essex & Suffolk Water (ESW) (2026). ESW Drought Plan 2027 Stage 2 Water Framework Directive (WFD) Report - Denver Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-W-0003.
[49] Essex & Suffolk Water (ESW) (2026). ESW Drought Plan 2027 Stage 2 Water Framework Directive (WFD) Report – Coldfair Green Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-W-0004.

- Other plans and projects
  - Water Resource East Plan
  - Anglian RBMP
  - Nationally Significant Infrastructure Projects (NSIPs)
  - SROs.

7.4.1 Other water company Drought Plans

Water company Drought Plans set out the range of demand management and supply augmentation measures that may need to be implemented during drought conditions to maintain essential water supplies to customers. The measures include water use restrictions (TUBs and Drought Orders to further restrict non-essential water use), as well as Drought Permit or Drought Order options to temporarily authorise amendments to abstraction licence conditions to enable more water to be abstracted during drought from water sources.

The following Drought Plans of our neighbouring water companies have been reviewed in detail for potential cumulative impacts with our Drought Plan:

- Anglian Water: Borders our supply areas; also acts as the sewerage undertaker for many of our customers
- Affinity Water: Borders the western edge of our Essex Supply Area and is situated northwest of the Essex Supply Area
- Thames Water: Borders the southern boundary of our Essex Supply Area (London boroughs)
- Cambridge Water: Does not border directly with our supply areas, but it was included in the assessment as it falls within our Drought Plan SEA study area. Cambridge Water operates to the west of the Suffolk area, covering the Cambridge area, which borders both Anglian Water and Affinity Water.

In addition to this desk-based review, we have engaged with our neighbouring water companies to seek information on their emerging Drought Plans and to identify any potential pathways for cumulative effects between their proposed drought actions and those included within our Drought Plan. This engagement has helped to inform the assessment and provides additional confidence that key interactions and potential cumulative risks have been identified at this stage.

It should be noted that cumulative effects from other water companies' Drought Plans are limited by the information available at this stage. This assessment will need to be updated once the 2027 Drought Plans from other companies become available for review.

Anglian Water's supply-side measures focus on maintaining or increasing water available for supply as drought conditions progress, with actions escalating in severity as the drought intensifies. Potential cumulative effects could occur between Ardleigh Reservoir (Anglian Water) and Abberton and Hanningfield Reservoirs (our scheme) due to the EOETS. EOETS is proposed by both water companies as an option during drought conditions. For Anglian Water, EOETS is categorised as a Level 3 drought action, whereas

it is considered a Level 0 drought action within our Drought Plan. Limited information regarding this action is available from Anglian Water regarding operations under extreme drought conditions making it difficult to estimate cumulative effects at this stage. When more information will be available, the Drought Plan will be revised and cumulative effects assessed.

Affinity Water's measures to maintain supply focus on:

- the optimising source performance;
- groundwater resting;
- intra and inter-company transfers (no transfer of water to our supply areas);
- capital investment supply schemes;
- managing outage;
- drought permit preparation;
- overview of drought permits screening process; and,
- drought permit sites[50].

None of these measures interact with those included in our Drought Plan. Therefore, it is unlikely there will be any pathways for cumulative effects between the two Drought Plans.

Thames Water's supply side measures are categorised into:

- optimisation of existing sources
- strategic schemes
- bulk supplies
- drought permits or orders
- recommissioning of disused sources
- in extreme options[51].

Similarly, none of these measures interact with those included in our Drought Plan. Therefore, it is unlikely there will be any pathways for cumulative effects between the two Drought Plans.

Cumulative effects have not been identified between the exiting Cambridge Water's Drought Plan and our Drought Plan. The supply side measures included within Cambridge

[50] Affinity Water (2023). Drought Management Plan 2023, Available at: https://jacobsengineering.sharepoint.com/sites/IC_NorthumbrianWater865/Shared%20Documents/Water%20and%20Environment/Drought%20Plans%20HRA%20SEA%20WFD/background%20material/Cumulative%20effects/Neighbouring_Drought%20Plans/Affinity%20Water_Drought-Management-Plan-2023.pdf?CT=1771834805991&OR=ItemsView [Accessed February 2026].
[51] Thames Water (2022). Drought Plan 2022, Available at: https://jacobsengineering.sharepoint.com/sites/IC_NorthumbrianWater865/Shared%20Documents/Water%20and%20Environment/Drought%20Plans%20HRA%20SEA%20WFD/background%20material/Cumulative%20effects/Neighbouring_Drought%20Plans/Thames%20Water-drought-plan-2022.pdf?CT=1771835688252&OR=ItemsView [Accessed February 2026].

Water's Drought Plan are outage reduction, bulk supply optimisation, use of existing licensed headroom, drought orders or permits, emergency droughts orders[52].

7.4.2 Water Resource Management Plans

ESW Water Resources Management Plan 2024

The SEA Environmental report for our WRMP24 has been reviewed to determine whether there are any cumulative effects between the options proposed within our WRMP24 and our Drought Plan. The WRMP24 proposes supply-side options, including desalination, borehole abstraction, effluent re-use, reservoirs and new strategic transfers. These options proposed are closely linked to the actions set out in our Drought Plan, as well as to the plans of neighbouring water companies, given that the measures across all plans operate in-combination to provide a resilient regional water supply and safeguard essential supplies during drought conditions.

The WRMP24 includes a suite of schemes intended to increase resilience to severe drought by ensuring that, despite significant growth in water demand, sufficient reliable water resources remain available to maintain essential supplies under severe drought scenarios.

A cumulative beneficial effect has been identified, as the demand-side actions within our Drought Plan would act in-combination with the extensive demand-management programmes in our WRMP24 to reduce pressure on water resources during prolonged dry weather, when river flows and groundwater levels are below normal. This would enhance the beneficial effects identified for the SEA objectives relating to water, biodiversity, population and human health, and highlights the importance of effective timing of drought-resilience actions. Potential cumulative adverse effects have also been identified during the implementation of drought management measures, particularly in relation to restrictions such as hosepipe bans and the potential reduction in water availability for recreational activities.

Both the beneficial and adverse cumulative effects may occur within catchments where the two plans (our WRMP24 and Drought Plan) are implemented concurrently, particularly if this takes place before adequate supply-side actions have been fully delivered. However, no additional mitigation is considered necessary beyond that already identified for each plan.

[52] Cambridge Water (2022) Cambridge Water drought plan, Available at: https://jacobsengineering.sharepoint.com/sites/IC_NorthumbrianWater865/Shared%20Documents/Water%20and%20Environment/Drought%20Plans%20HRA%20SEA%20WFD/background%20material/Cumulative%20effects/Neighbouring_Drought%20Plans/Cambridge%20Water-final-drought-plan-2022.pdf?CT=1771835768565&OR=ItemsView [Accessed February 2026].

Other water company Water Resource Management Plans

Our review of neighbouring water companies' latest WRMPs found no potential for cumulative effects, as none of their proposed options interact with, or geographically overlap, the areas assessed for our Drought Plan.

7.4.3 Other water company Drainage and Wastewater Management Plans

We provide water supply services only and therefore not required to prepare a DWMP. Sewerage and wastewater services within the study area are primarily the responsibility of Anglian Water, whose statutory DWMP sets out planned investment and management measures to address wastewater capacity, drainage performance and environmental protection.

Our Drought Plan does not propose development or operational changes that would directly influence wastewater generation, sewerage capacity or drainage infrastructure. As such, it is not expected to interact with or place additional pressure on the wastewater systems managed by Anglian Water.

In addition, Anglian Water's DWMP has been developed to accommodate forecast growth and environmental pressures within its catchments through a programme of framework-driven assessment and investment. Given the absence of overlap in regulatory control and the non-wastewater nature of our Drought Plan, no significant cumulative effects with Anglian Water's DWMP are anticipated.

7.5 Other Plans and Projects

7.5.1 Water Resource East Plan

The first Regional WRP for Eastern England covering the period 2025 to 2050 was finalised and published in December 2023. The Regional WRP supports several local, regional, and national plans and projects. It will have a direct link to water resources and water supply plans and policies. The cumulative effects of options between the regions are less likely to be of an immediate proximity in nature but instead relate to potential inter-relationships along a river, within a groundwater body, or in an estuarine/marine environment. The effects are more likely to emerge from the combined operation of options, as abstractions and discharges from proposed new supply options between one, or more, plans[53].

The WRP includes schemes to provide greater resilience to severe drought conditions by ensuring that, despite significant growth in demand for water, there are sufficient water supplies reliably available to sustain essential water supplies during a severe drought that may only occur on average once in every 500 years. The supply schemes are

[53] Water Resources East (2023). Integrated Environmental Assessment: Non-Technical Summary

complemented by a very substantial programme of demand management measures to reduce the scale of future growth in demand[54].

A cumulative beneficial effect is identified as the demand side drought actions from our Drought Plan will have beneficial effects on the water environment and also in-combination with the extensive demand side management programmes included in the Regional WRP. This is achieved by reducing the pressure on water resources in periods of prolonged dry weather when river flows, and groundwater levels are well below normal. This would further enhance the beneficial effects identified for the water, biodiversity, population and human health SEA objectives, and also highlights the importance of the timing of drought resilience.

7.5.2 Anglian River Basin Management Plan

An assessment has been undertaken of the potential for cumulative effects arising from our supply and demand side actions with drought measures listed in the Anglian RBMP. The Anglian RBMP describes the planned steps to implement the measures required to achieve the environmental objectives of the WFD. It provides the framework for protecting and enhancing the water environment.

The HRA for the Anglian RBMP concluded that the risk of significant in-combination effects on European sites arising from other plans is low, as the RBMP's objectives and actions are focused on improving the status of water bodies and achieving favourable conservation status for water-dependent European sites. While interactions with other strategic plans like our Drought Plan may potentially constrain the implementation of certain RBMP objectives, they may also provide opportunities to co-deliver actions (e.g. water demand management) that support the achievement of favourable conservation status for water-dependent European site features[55].

7.5.3 Nationally Significant Infrastructure Projects

A total of 73 NSIPs listed on the National Infrastructure Planning website[56] were reviewed to determine whether they fall within our Drought Plan SEA study area. Of these, 24 projects were identified as being located within our study area. These projects have been further assessed to identify any potential cumulative effects between the proposed NSIP works and the supply-side and demand-side actions set out in our Drought Plan.

[54] Water Resources East (2023). Regional Water Resources Plan for Eastern England - Integrated Environmental Assessment, Environmental Report. Available at: https://wre.org.uk/wp-content/uploads/2023/12/WRE-IEA-Environmental-Report_20231212.pdf [Accessed February 2026].
[55] Environment Agency (2022). River basin management plan for the Anglian River Basin District, Habitats Regulations Assessment. Available at: https://assets.publishing.service.gov.uk/media/635242f8e90e07768c1a73a0/Anglian_river_basin_management_plan_2022_HRA.pdf [Accessed February 2026].
[56] Planning Inspectorate. Find a National Infrastructure Project. Available at: https://national-infrastructure-consenting.planninginspectorate.gov.uk/project-search [Accessed February 2026].

In London area, only two NSIPs are located close to one of our Drought Plan supply-side actions – the bulk raw water transfer from Thames Water to Chigwell WTW. However, due to the nature of these projects (electricity and power infrastructure related projects), no cumulative effects are identified in relation to the North London (Electricity Line) Reinforcement and the North London Heat and Power Project.

In the South East area, three NSIPs are located within our Drought Plan SEA study area however, none are located in the vicinity of our Drought Plan supply-side actions. Taking account of both their location and the nature of these projects (transportation, electricity infrastructures, and harbour facilities), it is concluded that no cumulative effects are identified in relation to the M25 Junction 28 Improvements, Thurrock Flexible Generation Plant, and Tilbury2.

In the Eastern area, 16 NSIPs are location within our Drought Plan SEA study area, but none are located in the vicinity to our Drought Plan supply-side actions, except the Sizewell C Project. Sizewell C is a new nuclear power station to be constructed in Suffolk[57], with its principal water supply intended to be provided from the public mains by us, sourced from within our Blyth WRZ. Although the Sizewell C site lies approximately 2km to 3km east of three receptors associated with our raw water and WTW optimisation action, no cumulative effects are expected in relation to water demand. The anticipated demand from the Sizewell C Project has already been incorporated into our WRMP24 demand forecast, and we remain committed to providing the project with a long-term, reliable water supply.

Based on our WRMP24[58], an increase in demand is expected from 2032, when we begin supplying water to the Sizewell C Project. The baseline assessment for the Blyth WRZ identifies a supply-demand deficit after the first year of the planning period, as set out in Chapter 4, to which Sizewell C, alongside other drivers, contributes. The WRMP24 final plan incorporates demand management measures and new supply schemes which address this baseline deficit. As a result, the Dry Year Annual Average supply–demand balance for the Blyth WRZ is projected to remain in surplus throughout the planning period in the final plan. This indicates that, while Sizewell C (alongside other drivers) contributes to the baseline deficit, the proposed WRMP measures are sufficient to maintain supply-demand balance and support overall zone resilience.

As the Sizewell C Project is currently anticipated to come online just beyond the timeframe of Drought Plan 2027, the impacts of supplying the project during drought conditions will be reviewed and reassessed as part of the next drought plan cycle (DP32).

[57]Department of Housing, Local Government and Heritage. Transboundary Environmental Public Consultation – Sizewell C Nuclear Power Station, Suffolk, England, UK. Available at: https://www.gov.ie/en/department-of-housing-local-government-and-heritage/consultations/transboundary-environmental-public-consultation-sizewell-c-nuclear-power-station-suffolk-england-uk/ [Accessed February 2026].
[58]Northumbrian Water (2024) Essex & Suffolk Water, Water Resources Management Plan 2024. Available at: https://www.nwg.co.uk/globalassets/wrmp/nwg/october-24/esw/esw-wrmp24-main-report_final-oct-24.pdf [Accessed February 2026].

In conclusion, considering the nature of all NSIPs, no cumulative effects are identified in relation to the projects listed:

- A12 Chelmsford to A120 Widening Scheme
- Bramford to Twinstead
- Cambridge Waste Water Treatment Plant Relocation
- East Anglia ONE North Offshore Windfarm
- Great Yarmouth Third River Crossing
- Kings Lynn B Connection Project
- Lake Lothing Third Crossing
- Longfield Solar Farm
- Norwich Northern Distributor Road
- Palm Paper 3 CCGT Power station Kings Lynn
- Progress Power Station
- Rivenhall IWMF and Energy Centre
- Sunnica Energy Farm
- The Droves Solar Farm
- The Sizewell C Project
- White Elm Solar Farm.

7.5.4 Strategic Resource Options

Our desk study focused on the Strategic Resource Options (SROs) proposed by neighbouring water companies, as set out in the updated SRO information included within the RAPID Gate Two draft decisions[59].

Anglian Water SROs

Anglian Water has proposed two SROs within its WRMP24: the Lincolnshire Reservoir and the Fens Reservoir. Neither of these SROs overlaps with our Drought Plan implementation period (2027–2032), and therefore no cumulative effects are anticipated.

[59]Regulators' Alliance for Progressing Infrastructure Development (May 2023). Updated Strategic Resource Option (SRO) Information from RAPID Gate Two Draft Decisions. Available at: https://www.ofwat.gov.uk/wp-content/uploads/2023/05/Gate-2-update-for-investors-and-supply-chain.pdf [Accessed February 2026].

Affinity Water SROs

Affinity Water has proposed three SROs within its WRMP24: the Grand Union Canal Transfer, the White Horse Reservoir, and the Thames to Affinity Transfer. None of these SROs overlaps with our Drought Plan implementation period (2027–2032), and therefore no cumulative effects are anticipated.

Thames Water SROs

Thames Water proposed three SROs[60]: the White Horse Reservoir, the London Water Recycling Schemes and Water Transfer Projects. The London Water Recycling Schemes comprise three solutions: Teddington Direct River Abstraction, Beckton Water Recycling, and Mogden Water Recycling[61]. Of these, only Beckton Water Recycling is located close to the boundary of our Drought Plan SEA study area.

Although Beckton Water Recycling is primarily intended to improve London's water supply resilience, it may also provide indirect benefits to our supply areas. By enabling treated recycled water to be returned to river systems rather than relying on direct abstraction from surface water resources, the scheme could contribute to a reduction in the wider regional water deficit. Should any cumulative effects arise during operation, currently forecast to commence around 2031, these are likely to be beneficial. In particular, the scheme has the potential to help maintain river flows and reservoir storage during periods of extreme drought, thereby reducing the need for emergency drought measures across the wider South East.

The estimated implementation timelines for the remaining Thames Water SROs also do not overlap with our Drought Plan implementation period (2027–2032), and therefore no cumulative effects are anticipated.

Cambridge Water SROs

Cambridge Water has proposed two SROs within its WRMP24: the Fens Reservoir and the Grafham Transfer. Neither of these SROs overlaps with our Drought Plan implementation period (2027–2032), and therefore no cumulative effects are anticipated.

[60] Thames Water. About Us. Available at: https://thames-sro.co.uk/about-us/ [Accessed February 2026].
[61] Thames Water. Strategic water resource solutions. Available at: https://www.thameswater.co.uk/about-us/regulation/strategic-water-resource-solutions [Accessed February 2026].

8 MITIGATION MEASURES AND MONITORING

8.1 Mitigation Measures

Consideration of mitigation measures has been an integral part of our SEA process and has directly informed the development of our Drought Plan. Our SEA appraisals, presented in Chapter 6 and Section 6.6 above, are based on an assessment of residual effects, defined as the impacts likely to remain after the implementation of all mitigation measures (embedded and additional) .

In undertaking these assessments, we have made several key assumptions regarding mitigation, including:

- Where suitable specific mitigation measures have been identified (e.g. as informed through the EARs for drought order/permit actions[62&63] and other assessments of drought actions), these have been considered, such that the resultant residual effect has been determined in this SEA
- In line with recommendations made in the UKWIR SEA Guidance[64], our SEA appraisals have assumed the implementation of embedded mitigation measures, such as the use of standard best practice (where this is relevant) and operation of water sources in line with regulatory requirements
- No mitigation is proposed for abstraction licences which are issued by the Environment Agency based on an assessment of the potential impacts on the environment. These licences already contain flow constraints at low flows or conditions associated with an operating agreement. This is applicable to all supply-side actions which would operate with existing abstraction licence limits which have been subject to the Environment Agency's Review of Consents process.

Additional mitigation measures that have been identified through the combined environmental assessment and SEA process include:

- Consultation with affected water users (particularly in relation to other abstractors) to determine how licences are used, associated conditions and potential impacts of specific drought actions
- Extensive consultation in relation to the implementation of water restrictions and bans on use
- Further consultation and liaison with the Environment Agency
- Modifications to operating regimes of water level management or flood risk management structures, where appropriate, to help ensure that river flows are maintained
- INNS risk assessment of transfers of water between catchments

[62] Essex & Suffolk (ESW) (2026). Denver Environmental Assessment Report (EAR). [Unpublished]. Available on request.
[63] Essex & Suffolk (ESW) (2026). Coldfair Green Environmental Assessment Report (EAR). [Unpublished]. Available on request.
[64] UKWIR (2021). Environmental Assessment Guidance for Water Resources Management Plans and Drought Plans. London: UK Water Industry Research. Available at: https://ukwir.org [Accessed February 2026].

- Provision of adequate treatment of effluent prior to its reintroduction to any surface water bodies
- To protect fish populations aeration of river reaches if feasible and fish rescues, as deemed appropriate
- Use of renewable or 'clean' energy sources for any actions which have high energy demands
- Where archaeological remains are at risk due to water level changes measures set out in the Historic England 'Preserving Archaeological Remains' guidance (2016)[65] should be implemented as appropriate.

8.1.1 Demand-side actions

A number of embedded mitigation measures have already been considered and implemented in our Drought Plan as part of the approach to managing demand and reducing potential drought impacts.

For demand-side actions, we took account of the UKWIR Code of Practice for water companies and stakeholders on the use of water restrictions[66]. This code sets out the statutory and universal exemptions applied by all companies when implementing TUBs and drought orders. It should be noted that customers are not legally entitled to compensation for any loss or damage arising from the implementation of TUBs or NEUBs under a drought order.

Following a review of the 2022 drought actions[67] where TUBs have been incorporated, the implementation of TUBs was found to have resulted in a 3.34% reduction in Distribution Input and a 6.60% reduction in household demand. These reductions demonstrated a significant contribution to effective demand management and inform the approach set out in this Drought Plan. To maximise effectiveness, TUBs are planned to be implemented early in the Spring-Summer season where required.

TUBs will be implemented in a proportionate manner, by considering the balance between any impact on an individual or group of customers and overall public interest. In line with the Code of Practice, consideration will be given to among other aspects:

- the nature and seriousness of the water supply situation;
- the water savings from introducing the TUBs;
- the feedback from stakeholders including neighbouring water companies and Water Resources East; and,
- whether the restriction will impact on vulnerable customers or groups.

[65] Historic England (2016) Preserving Archaeological Remains: Decision-taking for Sites under Development. Swindon: Historic England. Available at: https://historicengland.org.uk/images-books/publications/preserving-archaeological-remains/ [Accessed February 2026]
[66] Water UK and UKWIR (2014). Managing Through Drought: Code of Practice and Guidance for Water Companies on Water Use Restrictions – 2013. UKWIR Project 14/WR/33/6.
[67] UKWIR (2023) Review of the 2022 Drought demand management measured, Summary Report. Available at: https://ukwir.org/review-of-2022-drought-demand-management-measures-summary-report [Accessed March 2026]

Detailed information regarding TUBs is provided in Appendices 13 to 15 of our Drought Plan.

Drought communications will focus on key water resource, demand management and water efficiency messages, and will provide advice to customers on how to reduce water use. For example, proactive communication during the first week following the introduction of TUBs will focus on reinforcing key messages, providing information on restrictions, and encouraging behavioural change.

In addition, UKWIR recommends the development of data to enable communication campaign effectiveness to be more fully evaluated. In line with this guidance, we have developed an integrated drought communications plan. This includes supporting customers in using water wisely through the promotion of our online water-saving calculator and high-water-use alerts for customers with smart meters (both household and non-household) and aligns with UKWIR recommendations on future data collection.

8.1.2 Supply-side actions

For all supply-side actions, with the exception of Coldfair Green, the assessment concludes that no additional mitigation is required beyond the measures described above. Based on Denver HoF EAR[68], the impact assessment concludes that all environmental, ecological, socio-economic and heritage receptors would experience Low or Negligible impact magnitudes, resulting in Minor and Not Significant effects.

For Coldfair Green, the mitigation measures identified in the EAR[69] are in accordance with the avoid-reduce-mitigate hierarchy, with priority given to measures linked to Major/Moderate receptors (fish, water quality, designated sites and INNS). Table 8.1 sets out the specific additional mitigation measures for Coldfair Green, identifying the relevant receptors, the mitigation actions proposed, their timing, the responsible parties and the criteria for assessing effectiveness. The measures are predominantly implemented during the drought period, with actions triggered immediately or subject to regular review where required.

Where appropriate, mitigation is supported by post-drought monitoring and reporting to confirm receptor recovery and verify effectiveness. All measures are feasible within existing operational arrangements and are verified through the Environmental Monitoring Plan (EMP) and post-event reporting. Further detail on the Coldfair Green mitigation measures is provided in Chapter 7.3 of the Coldfair Green EAR.

[68] Essex & Suffolk Water (2026) Denver Drought Action Environmental Assessment Report (EAR). [Unpublished]. Available on request.
[69] Essex & Suffolk (ESW) (2026). Coldfair Green Environmental Assessment Report (EAR). [Unpublished]. Available on request.

Table 8.1 Coldfair Green additional mitigation measures

Receptor	Mitigation Measure	Timing	Responsible Party	Effectiveness Assessment
Fish (all spp.)	Fish rescue/relocation to upstream refuges; temporary aeration if feasible.	In-drought (immediate)	ESW Ecologist + Environment Agency Fisheries	No further distress incidents attributable to the drought action; post-drought surveys indicate no population-level decline.
Water Quality (DO/Phosphate)	Early withdrawal (reduce abstraction to baseline); notify Environment Agency for discharge review.	In-drought (24h)	NWG Water Resources + Environment Agency	DO/phosphate returns to baseline within 7 days.
Designated Sites/Reedbeds (SSSI/Royal Society for the Protection of Birds (RSPB))	Partial restoration of compensation; Pause or modify operation subject to Environment Agency/ Natural England advice.	In-drought (weekly review)	NWG + Natural England	No change in condition assessment.
INNS	Check/clean/dry protocols; notify Environment Agency.	All phases	NWG Operations	No new INNS establishment.

8.2 Monitoring

Monitoring is required to track environmental effects, confirm whether impacts occur as predicted, and identify any adverse effects that may trigger the deployment of mitigation measures. Our Drought Plan sets out a suite of measures that would only be implemented if, and when, required, depending on drought conditions over the five-year lifetime of the Plan. The monitoring requirements and triggers will vary depending on the circumstances, and therefore the actual impacts of the Plan are subject to some uncertainty. Monitoring should focus on those drought actions for which moderate or greater effects have been identified in the SEA and in the associated HRA, WFD and EARs, but in our Drought Plan, as no moderate or greater effects have been identified, the monitoring will focus on demonstrating the actual effects of implemented drought actions.

8.2.1 Demand-side actions

Monitoring of demand side actions is focused on ensuring compliance with restrictions and verifying that water-saving initiatives are effective, especially during escalating drought levels.

Key demand side monitoring actions are:

- Leakage Detection & Repair: Reporting on leakage detection and repairs is implemented to identify and fix high-volume leaks, aiming to reduce repair backlog levels
- Meter Data Analysis: Increased frequency of meter data review to verify the efficacy of repairs and to guide further survey requirements
- Restriction Compliance (TUBs/NEUBs): Monitoring of TUBs and, if necessary, NEUBs to ensure, for example, that non-domestic customers are adhering to restrictions
- Water Usage Tracking: Monitoring of daily demand to assess the effectiveness of communication campaigns, with goals often aimed at achieving specific Ml/d or percentage reductions in peak demand.

8.2.2 Supply-side actions

As indicated in our Drought Plan, the main drought indicators currently monitored, and through which potential effects on environmental factors could be identified from an early stage, are listed below. These indicators are directly linked to the drought action framework, such that changes in the status of an indicator may both signal emerging environmental effects and influence the timing, scale or operation of the associated drought actions.

- Rainfall in each WRZ - rainfall is a primary indicator of drought severity. It has a direct effect on many hydrological parameters (soil moisture deficit, river flows and groundwater recharge) and can therefore directly impact on the quantities of water available for abstraction. Consequently, we will use rainfall to inform our drought status and to justify any restrictions on customers use of water
- Soil Moisture Deficit (SMD) in each supply area - SMD is the amount of water required to raise a soil to field capacity. As a soil approaches field capacity, infiltration and ultimately aquifer recharge can potentially occur
- Raw water reservoir storage levels - reservoir water levels and reservoir storage are a critical element of monitoring the WRZ
- Natural lake water levels - lake storage is recorded daily
- River flows (as reported by the Environment Agency) - we have installed telemetry at a number of the Environment Agency's gauging stations with 15-minute flow data being stored on our internal systems; Water quality (e.g. DO, temperature)
- Groundwater levels - groundwater levels in our pumped boreholes are automatically recorded every 15 minutes. Manual groundwater level measurements using a dip meter are taken weekly. Additionally, we monitor groundwater levels in a number of monitoring boreholes as required under various abstraction licence conditions. We also monitor groundwater levels in three observation boreholes that are not influenced by nearby abstractions to give an indication of background groundwater levels in our WRZs.
- River water quality at ESW abstraction intakes – a potential indicator of stress in aquatic ecosystems.

No additional monitoring is proposed specifically for the SEA environmental objectives, and the monitoring proposed for the drought actions requiring drought permits / drought orders is set out below.

8.2.3 Denver HoF

Monitoring for the Denver HoF action includes continuous flow monitoring to confirm implementation of HoF requirements and compliance with protected rights. Water-quality compliance monitoring, undertaken through existing programmes, would also continue to ensure no deterioration under the WFD and incident monitoring and reporting should capture any unforeseen events.

The EMP for the Denver HoF drought action is designed to provide regulatory assurance and verify that the drought action operates as assessed. Its objectives are to:

- Confirm correct implementation of the drought action by ensuring the HoF reduction to 114Ml/d is accurately applied during March–April
- Ensure protected-rights compliance by checking that downstream abstraction licence points remain above protected rights conditions throughout the drought action period
- Confirm no WFD deterioration, verifying that key water-quality parameters remain within existing classification bands and that no Environmental Quality Standard (EQS) failures occur
- Detect and report incidents - capture any unforeseen environmental events (e.g. fish distress, pollution, structural damage) for investigation and regulatory reporting.
- Support regulatory compliance by providing evidence to the Environment Agency and Natural England that the drought action has been implemented and assessed and no significant environmental impacts have occurred.

Monitoring is structured across three phases: Pre-Drought (Baseline); In-Drought; and Post-Drought (Recovery) and is deliberately minimal and proportionate, reflecting the negligible effects predicted in the environmental assessment and focusing on essential operational compliance.

Table 8.2 summarises the monitoring programme by receptor, parameter, frequency and reporting arrangements for Denver HoF. Further details on the monitoring plan are provided in Chapter 8 of the Denver HoF EAR[70].

[70] Essex & Suffolk (ESW) (2026). Denver Environmental Assessment Report (EAR). [Unpublished]. Available on request.

Table 8.2 Denver HoF Environmental Monitoring Plan

Receptor/ Parameter	Baseline Frequency	In-Drought Frequency		Post-Drought Frequency	Responsible Party	Reporting
		Pre-application	Post-implementation			
Hydrology (Flow – HoF compliance)	Continuous (existing operational data)	Continuous (existing operational data)	Continuous (existing operational data)	Continuous for two weeks following cessation of drought action	Environment Agency (EA)	Daily operational logs during drought; summary in drought close-out report
Hydrology (Flow – protected rights compliance)	As per existing EA monitoring arrangements	As per existing EA monitoring arrangements	Daily review during drought action	Not required unless compliance issue identified	Environment Agency	Confirm compliance in drought close-out report
Water Quality (WFD compliance: DO, ammonia, temperature, phosphate, Biochemical Oxygen Demand (BOD))	Quarterly (existing Environment Agency monitoring programme)	Quarterly (existing Environment Agency monitoring programme)	Monthly surveys during March-April	One survey approximately one month following cessation of the drought action	Environment Agency	Summary of results and EQS/WFD compliance reported in drought close-out report
Biological (algal blooms/ phytoplankton indicators)	Not required	Not required	Monthly alongside water quality monitoring during March-April	One walkover survey following cessation of drought action	Environment Agency	Observations reported in monitoring summaries and drought close-out report
Incident observations (fish distress, pollution, structural issues)	Not required	Not required	Fortnightly inspections during drought action	One post-drought inspection	Environment Agency	Incident reports (if any) within 24 hours to EA / Natural England; summary included in drought close-out report

8.2.4 Coldfair Green

For the Coldfair Green drought action, the objectives of the EMP are to:

- Characterise baseline hydrological, hydrogeological, water quality and ecological conditions within the Zone of Influence under non-drought circumstances, to support impact attribution
- Detect and track changes in flow, groundwater levels, water quality and ecological condition before and during implementation of the drought action, including any exceedance of agreed thresholds for WFD status, protected rights and key receptors
- Provide evidence on post-drought recovery, confirming that impacts are temporary and reversible, and informing future updates to the EAR and Drought Plan.

In addition to parameter-specific monitoring, routine environmental walkovers will be undertaken along the Hundred River corridor during the drought action to provide early warning of emerging issues such as fish distress, excessive marginal drying, bank instability, spread of INNS or unanticipated effects on designated wetland features. Findings from walkovers will be used to inform real-time operational decisions and the escalation of mitigation measures.

Table 8.3 summarises the monitoring programme by receptor, parameter, frequency, responsible party and reporting arrangements. Further details on the monitoring plan are provided in Chapter 8 of the Coldfair Green EAR[71].

[71] Essex & Suffolk (ESW) (2026). Coldfair Green Environmental Assessment Report (EAR). [Unpublished]. Available on request.

Table 8.3 Coldfair Green Environmental Monitoring Plan

Receptor/ Parameter	Baseline Frequency	In-Drought Frequency		Post-Drought Frequency	Responsible Party	Reporting
		Pre-permit application	Post-implementation			
Hydrology – Hundred River/ River flow	Monthly	Weekly for ~2–4 weeks pre-application	Weekly during drought action	Monthly as per baseline	Contractor via ESW Water Resources	Monthly summary to Drought Management Group (DMG); reported in Close-out Report.
Hydrology – Leiston–Aldeburgh SSSI/Surface water level	Quarterly	None	Quarterly (no change)	Quarterly	ESW	Included in annual SSSI condition review/Close-out Report.
Hydrogeology – Hundred River/ Groundwater level	Monthly	None	Monthly (no change)	Monthly for six months post-drought	ESW	Monthly to DMG; shared with Environment Agency on request.
Hydrogeology – Leiston–Aldeburgh SSSI/ Groundwater level	Monthly (existing SSSI monitoring)	None	Monthly (no change)	Monthly	ESW /Environment Agency	Included within SSSI condition reporting.
Water quality – Hundred River/ Temperature, DO, pH, phosphate	Monthly	Twice weekly for ~2 weeks pre-application	Twice weekly during drought action, frequency reviewed with Environment Agency depending on conditions.	Monthly for 3–6 months post-drought	Contractor via ESW Water Resources	Monthly summary to DMG; immediate notification to Environment Agency if thresholds breached.
Water quality – Crag aquifer/ Chloride, temperature, conductivity	Monthly	None	Monthly (no change)	Monthly	ESW	Included in Close-out Report.

Receptor/ Parameter	Baseline Frequency	In-Drought Frequency		Post-Drought Frequency	Responsible Party	Reporting
		Pre-permit application	Post-implementation			
Geomorphology – Hundred River/Channel form, bank condition, sedimentation, evidence of scour/deposition, presence / extent of INNS	Summer or late autumn (annual, pre-drought)	None	None	Once at 6–12 months post-drought	ESW / Specialist geomorphologist / Ecologist	Qualitative summary to DMG; including any observed INNS presence or changes, reported in geomorphology & ecology sections in Close-out Report.
Fish – observations/ Incidents (fish distress, stranding, pollution)	None (incident-led only)	Pre-application/ pre-implementation reconnaissance walkover	Once immediately before drought action, twice weekly for first two weeks of action, then weekly (frequency reviewed with EA).	Monthly for three months post-drought (or until no incidents recorded).	ESW Fisheries / Ecologist	Immediate incident reporting to EA; bi-annual summary to EA.
Macroinvertebrates/ Taxa richness, abundance, WHPT, LIFE, ASPT, EPT richness	Spring and autumn for at least 12 months pre-drought (aiming for 24 months where possible).	None	None (during action)	Spring and autumn at six, 12 and 24 months post-drought.	ESW Ecologist / accredited lab	Bi-annual summary to Environment Agency; comparison to WFD-relevant thresholds.
Macrophytes & phytobenthos (diatoms)/ Community composition, LEAFPACS/ diatom metrics	Once in summer (June-Sept) pre-drought.	None	None (during action)	Two further summer surveys (years 1 and 2 post-drought).	ESW Ecologist	Reporting as part of post-drought ecological appraisal.

Receptor/ Parameter	Baseline Frequency	In-Drought Frequency		Post-Drought Frequency	Responsible Party	Reporting
		Pre-permit application	Post-implementation			
North Warren reedbed/ Qualitative condition of key wetland habitats	Ad-hoc (subject to access and ongoing projects)	None	Ad-hoc during drought action if concerns raised by Natural England/RSPB.	Monthly for six months post-drought.	ESW Ecologist	Monthly summary to DMG; reported in Close-out Report.

9 CONSULTATION AND NEXT STEPS

9.1 Consultation on the Scoping Report

We invited Statutory Consultees to provide their views on our SEA Scoping Report and the proposed scope of the SEA, in accordance with the SEA Regulations. Our Scoping Report was issued in October 2025 to the Environment Agency, Historic England and Natural England, with the consultation period running until 18 November 2025. These statutory consultees were invited to comment on both the content of the report and the proposed SEA scope.

Following the close of the consultation period, we reviewed and considered all responses received (see Appendix B for the full Scoping Report responses). Several comments were submitted, including agreement with elements of our proposed approach, suggestions for relevant data sources, requests for methodological clarification, and recommendations to refine or strengthen aspects of the SEA approach and assessment framework.

9.2 Consultation on the Environmental Report

This Environmental Report has been prepared considering the feedback received from statutory consultees during the Scoping consultation. It presents our assessment of the likely significant effects of the drought actions we have considered and selected.

This Environmental Report, together with the Stage 1 HRA Screening report[72] and Stage 2 WFD reports[73&74] will be published for public consultation alongside our draft Drought Plan. The consultation period will run from June to August 2026. Once the consultation period closes, we will review and consider all responses received. We will then update the SEA Environmental Report, where appropriate, to reflect these comments and any proposed changes to the Drought Plan. A revised Environmental Report will be issued at the next stage of our Drought Plan process, alongside our Statement of Response.

9.3 Next Steps

Following adoption of our Drought Plan, a Post-Adoption statement will be produced. This will outline how our SEA process has influenced the development of our Drought Plan, how consultation comments were taken into consideration and how our Drought Plan will be monitored. The summary will provide sufficient information to demonstrate how Drought Plan 2027 was shaped by the SEA process and consultation.

[72] Essex & Suffolk Water (ESW) (2025). ESW Drought Plan 2027 Habitats Regulations Assessment Screening Report. WN025_0000-JAC-ZZ-ZZ_000-DOC-TE-0002.
[73] Essex & Suffolk Water (ESW) (2026). ESW Drought Plan 2027 Stage 2 Water Framework Directive (WFD) Report - Denver Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-W-0003.
[74] Essex & Suffolk Water (ESW) (2026). ESW Drought Plan 2027 Stage 2 Water Framework Directive (WFD) Report – Coldfair Green Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-W-0004.

Stage E, ‘Monitoring implementation of the plan,’ will be carried out by us. It is expected that monitoring of the Drought Plan 2027 will be incorporated into the annual Water Resources monitoring programme. Monitoring proposals will be finalised in the Post Adoption SEA Statement.

APPENDIX A SEA Process Tasks

SEA stage	SEA task	Task purpose
Stage A Setting the context and objectives, establishing the baseline and deciding on the scope	A1: Identifying other relevant plans, programmes, and environmental protection objectives	To establish how the plan or programme is affected by outside factors, to suggest ideas for how any constraints can be addressed, and to help to identify SEA objectives
	A2: Collecting baseline information	To provide an evidence base for environmental problems, prediction of effects, and monitoring; to help in the development of SEA objectives
	A3: Identifying environmental problems	To help focus the SEA and streamline the subsequent stages, including baseline information analysis, setting of the SEA objectives, prediction of effects and monitoring
	A4: Developing SEA objectives	To provide a means by which the environmental performance of the plan or programme and alternatives can be assessed
	A5: Consulting on the scope of SEA	To ensure that the SEA covers the likely significant environmental effects of the plan or programme. This is a statutory five-week consultation period
Stage B Developing and refining alternatives and assessing effects	B1: Testing the plan or programme objectives against the SEA objectives	To identify potential synergies or inconsistencies between the objectives of the plan or programme and the SEA objectives and help in developing alternatives
	B2: Developing strategic alternatives	To develop and refine strategic alternatives
	B3: Predicting the effects of the draft plan or programme, including alternatives	To predict the significant environmental effects of the plan or programme and alternatives
	B4: Evaluating the effects of the draft plan or programme, including alternatives	To evaluate the predicted effects of the plan or programme and its alternatives and assist in the refinement of the plan or programme
	B5: Considering ways of mitigating adverse effects	To ensure that adverse effects are identified, and potential mitigation measures are considered
	B6: Proposing measures to monitor the environmental effects of plan or programme implementation	To details the means by which the environmental performance for the plan or programme can be assessed
Stage C Preparing the Environmental Report	C1: Preparing the Environmental Report	To present the predicted environmental effects of the plan or programme, including alternatives, in a form suitable for public consultation and use by decision-makers

SEA stage	SEA task	Task purpose
Stage D Consulting on the draft plan or programme and the Environmental Report	D1: Consulting on the draft plan or programme and Environmental Report	To give the public and the Statutory Consultees an opportunity to express their opinions on the findings of the Environmental Report and to use it as a reference point in commenting on the plan or programme. There is no set time period for consultation. The SEA Regulations state that the Statutory Consultees and the public 'shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying environmental report before the action of the plan or programme or its submission to the legislative procedure'. The Environmental Report will be consulted upon alongside the Drought Plan To gather more information through the opinions and concerns of the public
	D2: Assessing significant changes	To ensure that the environmental implications of any significant changes to the drought plan or programme at this stage are assessed and taken into account
	D3: Decision making and providing information	To provide information on how the Environmental Report and consultees' opinions were considered in deciding the final form of the plan or programme to be adopted
Stage E Monitoring and implementation of the plans or programme	E1: Developing aims and methods for monitoring	To track the environmental effects of the plan or programme to show whether they are as predicted; to help identify adverse effects
	E2: Responding to adverse effects	To prepare for appropriate responses where adverse effects are identified

APPENDIX B SCOPING REPORT RESPONSES

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
Full SEA	Natural England	1. Duty to Protect and Enhance Designated Sites The SEA must explicitly recognise the company's statutory duty under the Wildlife and Countryside Act 1981 and Habitats Regulations 2017 to further the conservation and enhancement of designated sites, not just protect them. Opportunities should be framed around achieving favourable condition of sites, with emphasis on enhancement as well as protection"	See left column	Full SEA document - Summary Statement	SEA framework and assessment criteria have been updated to include opportunities for conservation and enhancement of designated sites and contributing to their favourable condition.
Full SEA	Natural England	2. Robust Environmental Baseline and Evidence The baseline information provided at this stage is too generic for meaningful comment; more detail is needed on the baseline's methodology and data. A list of designated sites (and preferably a map with reference drought options) and a clear rationale for the GIS buffer/zones of influence would have been helpful to demonstrate how sensitive receptors have been scoped in. Annex 1 gives more detail on useful baseline information such as the Local Nature Recovery Strategies (LNRS).	See left column	Full SEA document - Summary Statement	Section 4 Environmental Baseline Review of this SEA Environmental Report, together with Appendix D, has been expanded since the Scoping Report to include more detailed information for each SEA topic. Appendix D include tables and drawings showing the designated sites, as well as a description of the baseline methodology.
Full SEA	Natural England	3. Assessment of impacts to Water-Dependent Habitats and sites Clarity is needed on how drought options (including groundwater schemes and transfers) affect flow and water chemistry, not just water quality. All sensitive habitats (wetlands, GWDTEs, chalk streams, estuaries) must be considered, with site-specific risks assessed and documented. Further definition of recovery times, cumulative effects, and receptor-specific impacts would have been useful to allow for more meaningful comment and to give Natural England confidence in your assessments at this stage. Information about any monitoring and mitigation needed before, during and after drought (including any survey work needed in advance of drought, to gather baseline data and/or improve the understanding of risks/impacts) should be presented in the SEA.	See left column	Full SEA document - Summary Statement	The SEA has considered all relevant sensitive habitats, including wetlands, groundwater-dependent terrestrial ecosystems (GWDTEs), chalk streams and estuaries. Further site-specific risks and potential effects have been assessed and documented within the Environmental Assessment Reports (EARs), with the detailed findings presented in Appendix F of this SEA Environmental Report.
Pg. 9	Natural England	Stronger reference needed to the company's duty to further the conservation and enhancement (not just protect) of designated sites and contribute to their favourable condition as outlined in the Wildlife and Countryside Act 1981, Countryside and Rights of Way Act 2000 and Conservation of Habitats and Species Regulations 2017.	See left column	Section 2.2	SEA framework and assessment criteria have been updated to include opportunities for conservation and enhancement of designated sites and contributing to their favourable condition.
Pg. 21	Natural England	Good to see many demand side options	No action required	Table 4.1	Noted; no action required.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
Pg. 21	Natural England	Need more detail on Waveney Augmentation Groundwater Scheme i.e. location of boreholes, licence/permit details etc.	See left column	Table 4.1	Further information on Waveney Augmentation Groundwater Scheme (WAGS) is provided in our ESW Drought Plan 2027 Main Report
Pg. 21	Natural England	Re: SAGS and GOGs - even though EA operate these drought options ESW still need to have appropriate environmental assessments for these options such as HRAs, and these made available for Natural England	See left column	Table 4.1	This SEA Environmental Report includes the in-combination assessment of SAGS and GoGs.
Pg. 21	Natural England	A map with drought options would be useful here to illustrate proximity to designated sites	See left column	Table 4.1	Due to data confidentiality, the specific drought actions are not shown on a figure. However, Figure 1.2 in Appendix D of this SEA Environmental Report illustrates the Drought Plan study area in relation to the designated sites.
Pg. 22	Natural England	"Other key SEA regulation guidance for baselining to include here would be: “Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, [such as a European site (within the meaning of regulation 8 of the Conservation of Habitats and Species Regulations 2017)] and “The environmental protection objectives, established at international, Community or [national] level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation."" (Environmental Assessment of Plans and Programmes Regulations 2004)"	Ensure consideration of European Sites and environmental protection objectives at international, community or national level	Section 5	Appendix B of this SEA Environmental Report sets out the relevant international, European, national, regional, and local policies, plans, and programmes. It summarises their objectives and explains their relevance to both the Drought Plan and the SEA objectives. These objectives have been fully considered during the assessment process.
Pg. 23	Natural England	It is good to see an extended buffer; but more information should be provided to fully understand the rationale behind this, to ensure all protected sites are considered	More information should be provided to fully understand the rationale behind this, to ensure all protected sites are considered	Section 5.2	The rationale for the study area and the Zone of Influence for each SEA topic is presented in Section 4 Environmental Baseline Review of this SEA Environmental Report, as well as in Appendix D.
Pg. 26	Natural England	A list of designated sites is needed here, ideally with maps/tables showing locations in relation to drought permit options. Detail is needed on what features/characteristics of the site and designation make them vulnerable to permit options to demonstrate factors have been appropriately scoped in and allow for comment. Schedule 2 of the SEA Regulations mentions taking into account environmental problems of designated sites in the baselining.	See left column	Section 5.2.1	A list of designated sites has been included in Appendix D of this SEA Environmental Report. This includes tables and maps showing sites in relation to the study areas. Details on the key features and characteristics of each designated site, particularly those that make them sensitive or vulnerable to the proposed drought actions, have also been provided in the appendix.
Pg. 26	Natural England	Good to see inclusion of county wildlife sites	No action required	Section 5.2.1	Noted; no action required.
Pg. 26	Natural England	Where has this data come from?	Explain/reference where data has come from	Table 5.2	Appendix D of this SEA Environmental Report references have been updated to include the data sources used.
Pg. 27	Natural England	Consideration should be given to INNS species of concern in areas where raw water is being transferred from e.g. via EOTS	See left column	Table 5.2	INNS has been considered in this SEA Environmental Report assessment as well as EARs.
Pg. 28	Natural England	Could be more specific i.e. address water resource/quality issues on specific sites within drought option zones of	More specific on WR/WQ issues on specific site within drought option zone of influence and WFD	Section 5.2.2	Appendix D of this SEA Environmental Report provides baseline information on water resources, water quality, and the condition of

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
		influence & WFD status for the rivers within the RBDs - essential for environmental baselining. What are these nationally and internationally important wetland and water dependent habitats? More detail needs to be provided on these and explanations of why management of water resources is particularly important.	status More detail on nationally and internationally important wetland and water dependent habitats, and explanation of why management of water resources is important.		designated sites within the study area. This includes identifying nationally and internationally important wetland and water-dependent habitats, and explaining why these sites are particularly sensitive to changes in flow and water availability. More detailed information, such as the WFD status of individual rivers and assessments of water resource and water quality issues at specific designated sites, has been provided in the WFD Stage 2 assessments and the EARs. These complementary assessments supply finer-scale data on hydrology, water chemistry, pressures, and receptors, supporting a robust and comprehensive environmental baseline for the SEA.
Pg. 28	Natural England	"The ESW supply area also has a number of nationally and internationally important wetlands and other water-dependent habitats. Therefore, the management of water resources is particularly important." Haven't yet seen any detail yet on why management is important in terms of impacts to water dependent sites in relation to drought options i.e. impacts to flow and water chemistry. Going into more detail will give us confidence that the right factors and risks are being appropriately assessed and allow meaningful comment.	Include detail on why management is important in terms of impacts to water dependent sites in relation to drought options i.e. impacts to flow and water chemistry	Section 5.2.2	Details on the importance of water resource management have been included in Appendix D accompanying Section 4 Environmental Baseline Review of this SEA Environmental Report. A list of nationally and internationally important wetlands and other water-dependent habitats has also been provided.
Pg. 36	Natural England	What are the 8 NCA's mentioned here and why are they relevant to drought actions - more detail needed	See left column	Section 5.2.9	Details on the eight NCAs have been included in Appendix D of this SEA Environmental Report.
Pg. 40	Natural England	Cites guidance which was missing from an earlier section (p. 22 s.5 above) which mentions designated sites however this section doesn't mention specific sites and environmental issues/opportunities relating to them	Amend as seen fit	Section 6	Appendix D Environmental Baseline of this SEA Environemntal Report references have been reviewed and updated.
Pg. 41	Natural England	In Biodiversity, Flora and Fauna row, opportunities column should also emphasise the duty to 'enhance' and further conservation of designated sites not just protect	See left column	Section 6.1	A new row has been added to Table 4.1 in Section 4.4 of the SEA Environmental Report, under the Opportunities column: “Enhance biodiversity and build on existing habitats, particularly designated sites.”
Pg. 41	Natural England	In water row - water quality is mentioned but missing clear consideration of other key risks to water dependent sites such as changes in flow/volume and water chemistry	Consider other ley risks to water dependent sites such as flow, volume and water chemistry	Section 6.1	Additional risks, such as habitat fragmentation, limited water availability, changes in water chemistry, temperature fluctuations, and increased turbidity, have been added to the implications column of Table 4.1 (Section 4.4) of this SEA Environmental Report.
Pg. 41	Natural England	Water row opportunities column - Which chalk streams? Risk to specific receptors from drought permits hasn't been defined - another example of needing to know how impacts/risk have been assessed for specific sites/environmental receptors so we can comment. All wetland/GWDTE's are sensitive and therefore should be protected, not just chalk streams. Wetland and marsh habitats also dependent on consistent water quality. The DP should consider the effects of changing water chemistry on water dependent.	Consider the effects of changing water chemistry on water dependent ecosystems Include all wetlands and GWDTE's for protection Need to identify specific chalk streams and assess impacts/risk for specific receptors	Section 6.1	Risks to specific receptors per drought action are identified in Appendix F of this SEA Environmental Report, with further detail provided in the EARs. In particular, the effects of changes in water chemistry on water-dependent ecosystems. The bullet point “Protect sensitive chalk stream habitats” has been updated to “Protect sensitive wetlands and Groundwater Dependent Terrestrial Ecosystems” in Table 4.1 (Biodiversity, Flora and Fauna row) under the Opportunities column.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
Pg. 45	Natural England	Groundwater flow, not just 'resource' needs to be considered in assessment/modelling	See left column	Table 7.1	Table 5.1 in this SEA Environmental Report has been updated to change the objective from “To maintain surface water flows and quantity” to “To maintain surface water and groundwater flows and quantity”. Flows and quantity of groundwater are assessed within the SEA.
Pg. 45	Natural England	CSMG targets and Conservation Objectives should be used for designated sites alongside any WFD targets.	See left column	Table 7.1	In Table 5.1 of this SEA Environmental Report (Biodiversity, Flora and Fauna row), the SEA objective has been updated from “To meet WFD objectives relating to biodiversity” to “To meet WFD objectives relating to biodiversity and the targets and conservation objectives of designated sites”.
Pg. 45	Natural England	Changes in water chemistry is a risk to groundwater dependent sites and should be a key consideration here	See left column	Table 7.1	SEA objectives column updated from 'To maintain the quality of surface and groundwater water bodies' to 'To maintain the quality of surface and groundwater water bodies, including to meet WFD objectives related to the water chemistry and objectives of groundwater dependent sites'. Assessment has been undertaken against this new objective.
Pg. 46	Natural England	Biodiversity, flora and fauna row - Should be to 'protect and **enhance**'	See left column	Table 7.2	SEA objective in Table 5.1 has been updated from 'To protect biodiversity, ecological functions, capacity and habitat connectivity, including protecting designated sites and their qualifying features, priority species and priority habitats.' to 'To protect and enhance biodiversity, ecological functions, capacity and habitat connectivity, including protecting designated sites and their qualifying features, priority species and priority habitats.'
Pg. 46	Natural England	Biodiversity, flora and fauna row - CSMG targets as well as WFD for designated sites Biodiversity, flora & fauna indicator question - Will it enhance aquatic, transitional and terrestrial ecosystems?	Include CSMG Targets Biodiversity, flora & fauna indicator question - Will it enhance aquatic, transitional and terrestrial ecosystems?	Table 7.2	In Table 5.1 of this SEA Environmental Report, the following indicator question has been added to the Indicator questions column: “Is the action likely to contribute to or conflict with the targets and conservation objectives for designated sites?”
Pg. 47	Natural England	Water row - again missing the key considerations of water chemistry and groundwater baseflow. Chalk streams are mentioned again but not other sensitive water-dependent habitats which could be equally at risk to deterioration from drought options but it has not been made clear how risks/influence have been assessed	Include water chemistry and groundwater base flow. Need to consider other sensitive water-dependent habitats	Table 7.2	In Table 5.1 of this SEA Environmental Report (Water row), the Indicator questions column has been updated as follows: ▪ From: “Will the action affect surface water quality or quantity?” To: “Will the action affect surface water quality or quantity (including water chemistry)?” ▪ From: “Will the action affect groundwater quality or quantity?” To: “Will the action affect groundwater quality or quantity (including groundwater baseflow)?” ▪ From: “Will the action affect chalk rivers and streams?” To: “Will the action affect wetlands and Groundwater Dependent Terrestrial Ecosystems?”
Pg. 53	Natural England	More detail needed on recovery time of effect	See left column	Table 8.1	The definition of duration has been expanded in Section 5.2.1 of this SEA Environmental Report. Recovery time of effects has also been considered when assessing the drought actions. Recovery time of effects has also been considered when assessing the drought actions.
Pg. 54	Natural England	Short, medium and long in terms of effect needs to be defined and receptor specific, i.e. 6 months of effects will greatly vary in impact depending on time of year, type of receptor etc. This needs to be worked in with assessments of recovery time and cumulative effects. The dry weather this year and	Need to consider recharge recovery in long-term. Short, medium and long in terms of effect needs to be defined and receptor specific.	Section 8.1.1	

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
		subsequent issues with recharge demonstrate the need to look at the long-term. Groundwater-dependent sites especially need adequate recharge to recover			
Pg. 55	Natural England	How would Secondary, Cumulative and Synergistic Environmental Effects for designated sites/habitats/species effects be assessed and ranked? Need to consider the nuances of using 'low, medium and high' to assess magnitude of effects on protected sites. For example, an effect on a SSSI from a drought options may be considered 'low' (i.e. a small amount of drawdown' but if this site is already in unfavourable condition or on the cusp, any further deterioration to the site should be seen as 'high'. Good baselining which looks at NE condition assessments for each site in scope is needed to determine this	Need to look at NE condition assessments to inform baselining for 'magnitude of effect' classifications. Explain how Secondary, Cumulative and Synergistic Environmental Effects for designated sites/habitats/species effects be assessed and ranked?	Section 8.1.2	Details on how sensitivity and importance are incorporated into the assessment have been included in Section 5.2.1 of this SEA Environmental Report. See Table 5.2 residual effects matrix combining magnitude of impact and receptor value/sensitivity.
Pg. 56	Natural England	Which sites have been scoped in for a HRA?	See left column	Section 8.1.3	Details on the European sites scoped into the assessment are presented in the HRA Screening Report, Section 4.6 (HRA Screening Results)
Pg 58	Natural England	Environmental monitoring plan not mentioned - part of environmental report but should be referenced here and in baseline section	Reference environmental monitoring plan here and in baseline section	Table 9.1	Details on the environmental monitoring plan are included in this SEA Environmental Report, Section 9 Monitoring Proposals.
Pg 58	Natural England	'Do you have any comments on the baseline information presented or any additional baseline information you think would be useful?' The baselining information presented is high level and therefore difficult to provide any specific comments. It would be good to know more details of the baseline scope and methodology and what data is planned to be used. Please engage with the new LNRS for Norfolk and Suffolk which will be published shortly by Norfolk, Suffolk and Essex County Councils. LNRS outline local priorities for Nature Recovery and have a local habitat map showing priority areas which can help inform your environmental assessments.	Other useful baseline data (not exhaustive): ▪ Conservation Objectives and Supplementary Advice documents for designated sites (Available on Designated Sites View) ▪ NE condition assessments ▪ NE commissioned reports/site surveys we may have for individual sites ▪ Catchment Based Approach Chalk Steam Restoration Strategy: https://catchmentbasedapproach.org/wp-content/uploads/2022/11/CaBACSRG-IMP-PLAN-FINAL-25.11.22.-V2.pdf ▪ Climate change Adaption Manual: https://publications.naturalengland.org.uk/publication/5679197848862720 ▪ Cambridge/South Staffs WRMP ▪ Norfolk/Suffolk WRMP	Section 9	High-level baseline information was provided in the Scoping Report; however, more detailed baseline information is presented in this SEA Environmental Report, Section 4 Environmental Baseline Review, and Appendix D.
1	Environment Agency	Temporal scope of the plan and its associated SEA is unclear. Results in uncertainty on the temporal scope so can't be clear that the SEA will cover the same timeframe as the Drought Plan, which could lead to impacts being missed at the assessment phase. **Moderate**	In advance of the assessment stage and Environmental Report additional work should be done to: ▪ clarify the temporal scope - the SEA assessment temporal scope should match that of the Drought Plan.	Section 5.1, Section 5.2	Details on the temporal scope was provided in this SEA Environmental Report, Section 4 Environmental baseline review.
2	Environment Agency	**.** Baseline is currently brief and aspects such as condition of receptors and key issues should be further developed to inform effective assessment.	In advance of the assessment stage and Environmental Report additional work should be done to:	Section 5 Baseline	The information provided in the SEA Scoping Report is high level; further detail on both the existing baseline and the future baseline are presented in Appendix D of this SEA Environmental Report.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
		Baseline information is provided for each SEA topic, albeit, very brief in parts. Further detail on the baseline to provide further narrative on the condition of receptors and key issues is needed. For the assessment stage and the SEA Environmental Report would expect this to be expanded to include additional context for example on the condition of the receptors and discussion on key environmental issues. . Future baseline is lacking: this will need further consideration and documentation in the SEA Environmental Report to ensure compliance with the SEA Regulations. Evolution of the baseline is not considered sufficiently in the scoping report, brief statements are made for some topic areas but it is not fully considered. The evolution of the baseline in the absence of the plan should be provided for each baseline topic. This will need to be considered further to inform the assessment stage and be documented in the Environmental Report. Baseline has been used to support the development and scoping of relevant objectives. Results in uncertainty as to whether the baseline context and condition of receptors and associated issues will be fully considered within the assessment phase. There is potential for legal compliance issue at the Environmental Report Stage if future baseline not fully considered, with associated uncertainty as to whether impacts have been fully considered. **Moderate**	▪ Provide further detail on receptors and key issues to ensure a robust assessment ▪ Provide further detail on the future baseline as to inform the assessment and be compliant in the Environmental Report	Section 6 Key Environmental issues and opportunities Section 7 SEA Framework	
3	Environment Agency	PPP: Note that the EU Directives are referred to rather than the national legislation now relevant since the EU exit. Also draft FRMPs are assessed as opposed to the finalised FRMPs which are available. Most up to date information is required. **Minor**	Suggest updating of references to EU legislation to refer to the relevant derived national legislation. Update PPP to consider final FRMPs as opposed to draft FRMPs	Sections 2.1 and 2.2, Appendix	This SEA Environmental Report includes reference to the SEA Directive and its transposition through Regulation 12 of the Environmental Assessment of Plans and Programmes Regulations 2004. The reference to the Draft FRMPs has been removed.
4	Historic England	Our key message is that the emerging Drought Plan should make greater reference to the historic environment, not just within the SEA but also as part of the main Plan itself. The SEA should give proportionate consideration to potential impacts on both designated (Listed Buildings, Scheduled Monuments, Registered Parks and Gardens, Battlefields and Conservation Areas) as well as non-designated heritage assets.	See left column	Full SEA document - Summary Statement	Our ESW Drought Plan 2027 Main Report include a section on Historic Environment and risk assessment undertaken. This SEA Environmental Report proportionately considered potential impacts on both designated (Listed Buildings, Scheduled Monuments, Registered Parks and Gardens, Registered Battlefields and Conservation Areas) as well as non-designated heritage assets.
5	Historic England	We welcome the Review of Relevant Policies, Plans and Programmes in Appendix A. When considering key policies, plans and programmes, we also recommend the inclusion and consideration of the following: National ▪ Marine and Coastal Areas Access Act 2009 ▪ National Planning Policy Framework (2024) Local	Include considerations listed in the left column	Appendix A: Policies, Plans and Programme	The Coastal Access Act 2009 and the National Planning Policy Framework (2024) have been added to Appendix C. Data on heritage assets from the Historic Environment Records has been included under the Essex Heritage and Conservation Strategy. All other relevant local-level suggestions for ESW, excluding Local Plans, have also been incorporated. Local Plans are already covered in Appendix C of this SEA Environmental Report.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
		▪ Local Plans ▪ Historic Environment Record ▪ Heritage/Conservation Strategies ▪ Other Strategies (e.g. cultural or tourism) ▪ Conservation Area Character Appraisals and Management Plans ▪ Listed building Heritage Partnership Agreements			
6	Historic England	The baseline information in Table 5.11 is a good start, however they consider that it would be helpful to consider collecting additional baseline information relating to aspects of the historic environment that might be affected by the Drought Plan: e.g. buried, waterlogged archaeological and paleoenvironmental remains of significant interest and fragility that can be associated with river valleys, floodplains, estuaries, coastal and wetland areas, including mires, bogs, peatland and water meadows.	Exercise could take account of areas of archaeological importance and the potential for unrecorded archaeology and seek to establish: ▪ the significance of the archaeological remains ▪ its condition, the burial environment and state of preservation ▪ the likely impact of development activity (e.g. potential removal or dewatering from the proposed scheme) on that significance and state of preservation.	Section 5 Baseline	Appendix D of this SEA Environmental Report has been updated to include additional baseline information. No significant adverse effects on the historic environment objective have been identified for any of the drought actions.
7	Historic England	Examples of baseline information of archaeological remains in such environments can be: ▪ deeply buried archaeological remains, which means that they are unlikely to be identified by standard approaches. ▪ waterlogged archaeological remains, which would mean they are likely to be rare and potentially important, but might require greater resources to excavate and subsequently deal with. ▪ Indirectly impacted archaeological remains: currently well-preserved known and unrecorded, designated and non-designated buried archaeology in the vicinity which may be adversely affected by changes to the water environment. Waterlogged archaeology may be nationally important if it is well preserved, rare, of exceptional significance and evidence exists for it to be understood in terms of its contemporary landscape context. Where nationally important archaeology owes its significance to waterlogging and is in proximity to a proposal, changes in the water environment should be avoided that may be cause harm in order to conserve its significance.	Consider waterlogged archaeology, and the other examples stated in the left column, in the Baseline assessment. Historic England guidance: https://historicengland.org.uk/images-books/publications/preserving-archaeological-remains/ Noting that: 'Although it may be appropriate for this evidence gathering and assessment to take place at the more detailed design/application stage, it is important to raise these issues and signpost how they might (further down the line) be tackled as the consideration of waterlogged archaeology may be costly to deal with and deep floodplain, estuarine and coastal deposits difficult to evaluate by standard techniques.'	Section 5 Baseline (Further examples).	We recognise these potential effects on the historic environment; however, no significant adverse effects on the historic environment objective were identified for any of the drought actions.
8	Historic England	The approaches required are likely to include deposit modelling and assessing the probable condition and state of preservation of any buried archaeology. As these are not techniques regularly used in all desk-based assessments, the need for them to inform the design stages of water-related proposals should be appreciated early on. This will help to reduce the risks for the development as well as maximising	Consider the relevance for deposit modelling using the Historic England Guidance: https://historicengland.org.uk/images-books/publications/deposit-modelling-and-archaeology/	Section 5 Baseline - Deposit Model	We are aware of the geoarchaeological potential of the Essex and Suffolk region, which preserves a wealth of information relating to past hominid occupation and of environmental change over the Quaternary Period. The significance of the region has been demonstrated in the recent Ancient Human Occupation of Britain project. The research agenda and strategy for the region is defined in Brown N and Glazebrook J (2000) Research and Archaeology: a

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
		archaeological understanding and consistency with national planning policy for the conservation and enhancement of the historic environment. The strategy/plan should identify the need for a deposit model, based on existing borehole and other information, as well as a preliminary assessment of the likely state of preservation of any buried archaeological remains, based on previous archaeological work in the locality.			Framework for the Eastern Counties, east Anglian archaeology Occasional Paper 8. All Quaternary-aged deposits are of potential interest because they may form land surfaces occupied by hominids, include artefacts such as hand axes or preserve evidence for past climates and environments. Therefore, the geoarchaeological significance is not simply related to the presence of peat, and assumptions that reductions in groundwater levels will lead to degradation of the geoarchaeological resource is not necessarily correct. As site-specific projects develop, impacts on the archaeology and geoarchaeology will be addressed as part of the EIA process. In relation to geoarchaeology, deposit models will be generated using data available from desk study of archive or public domain data and project ground investigations to demonstrate the distribution of material present using the methods defined by Heritage England 2020 Deposit modelling and archaeology. This will support assessment of the geoarchaeological significance of the site, with reference to regional research objectives. The implications of proposed works and mitigation measures can then be defined.
9	Historic England	Please note also that 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.	Refer to relevant Historic Environment Record and seek views of local authority archaeological advisors.	Section 5 Baseline	Appendix D of this SEA Environmental Report has been updated to include additional baseline information on unrecorded and non-designated archaeology. We welcome views of local authority archaeological advisors when this SEA Environmental Report is shared during the consultation phase and will incorporate any comments or suggestions into the final report.
10	Historic England	Finally, the baseline should acknowledge the potential presence of non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments and should therefore be considered in line with policies for designated heritage assets, in line with NPPF footnote 75.	Acknowledge the presence of non-designated heritage assets of archaeological interest in line with policies	Section 5 Baseline	Appendix D of this SEA Environmental Report has been updated to include additional baseline information to acknowledge presence of non-designated heritage assets of archaeological interest.
11		While the key issues set out in the report provide a helpful starting point, we consider that these don't adequately reflect the specific issues pertinent to the management of water and potential impacts on the historic environment. Namely: ▪ The potential impact of water catchment and abstraction measures on heritage assets and their settings, including impacts on water-related or water dependent heritage assets; ▪ The potential impact of changes in groundwater flows and chemistry on preserved organic and paleoenvironmental remains: for example, lowering ground water levels may result in the possible degradation of remains through de-watering, whilst increasing groundwater levels and the effects of re-wetting/ changes in salinity brought about by coastline modification could also be harmful;	We suggest that Table 6.1 Key Issues and Opportunities associated with each SEA Regulations topic, could be amended to incorporate some of these issues (see left column).	Section 6 Key Environmental Issues and Opportunities	We recognise the importance of understanding how water management and drought actions may affect heritage assets, including water-related and water-dependent assets, groundwater-sensitive remains, hydro-morphological features, and unrecorded waterlogged archaeology. These issues have been considered within the assessment: ▪ Baseline information on designated and non-designated heritage assets, including potential for unrecorded and waterlogged archaeology, has been expanded in Appendix D of this SEA Environmental Report. ▪ Potential effects from changes in groundwater flows, water chemistry, hydrology, and geomorphology have been assessed through the EARs, supported by WFD Stage 2 assessments where relevant. ▪ Historic environment sensitivities, including potential impacts on archaeological remains preserved in wet

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
		▪ The potential impact of hydro-morphological adaptations on heritage assets: this can include the modification/removal of historic in-channel structures, such as weirs / coastal and estuarine features such as historic sea defences; as well as physical changes to rivers/the coastline with the potential to impact on archaeological and paleoenvironmental remains; ▪ The potential for unrecorded deeply buried and waterlogged archaeology within the 'natural' floodplain/estuarine/coastal deposit sequence.			conditions and the settings of water-related heritage assets, are reflected in the SEA assessment criteria and the updated objectives and indicator questions in Table 5.1.
12	Historic England	While we support the proposed SEA objectives and assessment questions/subthemes, we advise that the Framework is reviewed to consider each of the above points outlined above to inform an appropriate and positive response to the conservation and enhancement of historic environment. In addition, we recommend that the framework provides scope for assessing impacts on non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, in line with NPPF footnote 75.	Framework to be reviewed to consider each of the above points outlined above to inform an appropriate and positive response to the conservation and enhancement of historic environment. Framework to provide scope for assessing impacts on non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, in line with NPPF footnote 75.	Section 7 SEA Framework	The SEA objectives and indicator questions have been reviewed and updated to address these considerations, including the sensitivity of water-dependent heritage assets, groundwater-preserved remains, hydro-morphological features, and the potential for unrecorded archaeology. The framework also provides scope for assessing impacts on non-designated heritage assets of archaeological interest that may be of equivalent significance to scheduled monuments, in line with NPPF Footnote 75.
13	Historic England	As before, we advise that the Drought Plan considers each of the above points outlined in this email to inform an appropriate and positive response to the conservation and enhancement of historic environment. In particular, we recommend that the framework provides scope for assessing impacts on non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, in line with NPPF footnote 75.	Framework to provide scope for assessing impacts on non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, in line with NPPF footnote 75.	Section 8 Assessment Methodology / Appendix C definitions of residual effects	Please see response to same comment above.
Full SEA	Historic England	We would re-iterate our advice that the SEA process should give a thorough assessment of the potential impacts on the historic environment of the Plan as a whole as well as individual components of the Plan and set out any mitigation required. Clear consideration should be given to impacts on both designated and non-designated heritage assets. We would stress the importance of the consideration of the historic environment not only in relation to the SEA but also within the Drought Plan itself. Para 202 of the NPPF emphasises that heritage assets are an irreplaceable resource whilst paragraph 203 promotes a positive strategy for the conservation and enhancement of the historic environment. Historic England strongly advises that the local authority conservation teams and archaeological advisors are closely involved throughout the preparation of the assessment of this evidence. They are best placed to advise on; local historic	Full drought plan requires consideration of the historic environment. Should involve local authority conservation teams and archaeological advisors throughout the preparation of evidence for the assessment 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 proposals 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.	Full SEA document - Conclusion	Please see response to same comment above.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
		environment issues and priorities, including access to data held in the Historic Environment Record (HER- formerly Sites and Monuments Record); how the proposals 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.			

APPENDIX C POLICIES, PLANS AND PROGRAMMES

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
International			
Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)	Biodiversity	The aims are to conserve wild flora and fauna and their natural habitats and to promote European cooperation. Particular importance is placed on the need to protect endangered natural habitats and endangered vulnerable species, including migratory species.	Our Drought Plan 2027 must assess how water abstraction and drought mitigation may affect sensitive ecosystems. The Environment Agency's updated guidelines emphasise using environmental triggers, such as impacts on chalk streams and wetlands, to protect these areas. These triggers align with international conservation obligations, including the Bern Convention. The plan must also comply with biodiversity laws derived from such treaties and include public consultation, reflecting the Convention's principles of transparency and stakeholder engagement. For our Drought Plan 2027, the SEA objectives should align with the Convention, ensuring drought plan assess and mitigate ecological risks.
Bonn Convention on the Conservation of Migratory Species of Wild Animals (1983)	Biodiversity	The Convention aims to conserve terrestrial, aquatic and avian migratory species throughout their range.	Our Drought Plan must assess and mitigate impacts on these species, especially in aquatic and wetland environments. The SEA should integrate this international obligation by promoting habitat conservation, ecological connectivity, and environmental monitoring—ensuring that drought measures align with biodiversity protection goals under the Convention.
Convention on Biological Diversity (1992)	Biodiversity	The Biodiversity Convention has three main aims which are to conserve biological diversity; to ensure the sustainable use of the components of biological diversity; and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources.	Relevant to our Drought Plan and SEA because it requires the protection and sustainable use of biodiversity. It ensures that drought actions are ecologically responsible, legally compliant, and integrated into environmental monitoring and planning.
Ramsar Convention - The Convention on Wetlands of International Importance (1971)	Biodiversity	Provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The aim is 'the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world'. The Convention uses a broad definition of the types of wetlands covered, including lakes and rivers, swamps and marshes, wet grasslands and peatlands, oases, estuaries, deltas and tidal flats, near-shore marine areas, mangroves and coral reefs, and human-made sites such as fishponds, rice paddies, reservoirs, and salt pans.	Relevant to our Drought Plan and SEA because it requires the protection and sustainable use of internationally important wetlands. The SEA must ensure that drought actions avoid or mitigate impacts on Ramsar sites, aligning with the Convention's conservation obligations.
United Nations Framework Convention on Climate Change (CBD, 1992)	Climatic factors	The stated objective is to achieve stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. The parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.	Relevant to our Drought Plan and SEA because it sets the international framework for climate adaptation, which informs UK climate policy and water resource planning. These documents (the Drought Plan and SEA) must reflect climate resilience strategies, support national carbon reduction goals, and promote sustainable, inclusive approaches to managing drought risks.
Kyoto Protocol to the UN Framework Convention on Climate Change (1997)	Climatic factors	The Kyoto Protocol was adopted in 1997 and ratified in 2005. It commits its parties to limit climate change by setting internationally binding targets for emission reductions. Covering the six main GHGs, it required the UK to reduce emissions by 12.5% in the first commitment period (2008-2012). This was successfully achieved, and a second commitment period has been agreed whereby European Union (EU) countries will aim to achieve a joint 20% reduction compared to 1990 levels.	Relevant to our Drought Plan and SEA because it establishes binding commitments for reducing greenhouse gas emissions, which influence UK climate policy. The plan must reflect those commitments by promoting low-carbon infrastructure, energy-efficient water management, and climate mitigation strategies. This ensures alignment with international obligations and supports sustainable environmental planning.
Commitments arising from the World Summit on Sustainable Development, Johannesburg (2002)	Climatic factors	Adopted at the World Summit on Sustainable Development in 2002 and built upon earlier declarations made at previous conferences and summits. It commits nations to take a collective responsibility to build a human, equitable and caring global society cognisant of the need for human dignity for all. The Declaration also reinforces the three pillars of sustainable development: environmental, economic and social development at the local, national, regional and global level.	The commitments represent high-level definitions of sustainable development. The Drought Plan and SEA should be strongly influenced by these themes, particularly those relating to sustainable resource management, poverty reduction, and access to clean water. While not legally binding, these principles provide essential guidance for integrating environmental, social, and economic sustainability into long-term water resource planning and decision-making.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
Paris Agreement (2015)	Climatic factors	The Paris Agreement came out of the COP21 and aims to limit global temperature rises to 1.5ºC to 2ºC above pre-industrial levels. It brings together 196 parties from across the world into a common cause and requires all parties to put forward nationally determined contributions to strengthen efforts in the years ahead. It also aims to strengthen the ability of countries to deal with the impacts of climate change.	Relevant to our Drought Plan and SEA because it commits countries, including the UK, to reducing greenhouse gas emissions and adapting to climate impacts. The plan and SEA must reflect national climate targets by promoting low-carbon water management and integrating climate resilience into long-term drought strategies. This ensures alignment with global efforts to limit temperature rise and protect ecosystems.
Charter for the Protection and Management of Archaeological Heritage (1990)	Historic environment	The charter lays down principles relating to the different aspects of archaeological heritage management. These include the responsibilities of public authorities and legislators, principles relating to the professional performance of the processes of inventorisation, survey, excavation, documentation, research, maintenance, conservation, preservation, reconstruction, information, presentation, public access and use of the heritage, and the qualification of professionals involved in the protection of the archaeological heritage. The Charter states that policies for the protection of archaeological heritage should constitute an integral component of policies relating to land use, development, and planning as well as of cultural, environmental and educational policies.	Relevant to our Drought Plan and SEA because it promotes the safeguarding of archaeological sites during development and land use planning. It encourages early identification, assessment, and protection of heritage assets, which should be integrated into environmental assessments. This ensures that drought actions respect and preserve cultural heritage in line with international best practices.
The World Heritage Convention (1972)	Historic environment	The Convention defines the kind of natural or cultural sites which can be considered for inscription on the World Heritage List. It also sets out the duties of states in identifying potential sites and their role in preserving them.	Relevant to our Drought Plan and SEA because it obliges the UK to protect cultural and natural heritage of outstanding universal value. The Drought Plan must consider potential impacts on World Heritage Sites and ensure that drought actions do not compromise their integrity. This supports responsible environmental planning aligned with international heritage conservation standards.
Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) (1998)	Population and human health	The Aarhus Convention was created to give empowerment to citizens and civil society organisations in relation to environmental matters and is founded on the principles of participative democracy. It provides for access to environmental information; public participation in environmental decision making; and access to justice.	Relevant to our Drought Plan and SEA because it guarantees the public's right to access environmental information and participate in decision-making. The Drought Plan must ensure transparency, actively involve stakeholders, and provide access to justice in environmental matters. This helps build trust and accountability in water resource planning.
European			
Ambient Air Quality Directive (2008/50/EC)	Air	It establishes ambitious, cost-effective targets for improving human health and environmental quality up to 2020. The EU objective on air quality is 'to achieve levels of air quality that do not result in unacceptable impacts on, and risks to, human health and the environment'.	The implementation of the Drought Plan may have some influence on air quality, through operational activities. The SEA should consider the need to ensure that the region's air quality is maintained or enhanced and meet regional air quality targets.
A Clean Air Programme for Europe (2013)	Air	The Programme proposes legislation to reduce harmful emissions in the longer term which contribute to poor air quality and damage the natural environment. In addition, is promoting measures which also mitigate atmospheric warming and climate change. The timelines for the emission reductions are fully consistent with the new 2030 framework for climate and energy policy which will allow investors to maximise the synergies of their investments. Is setting up new air quality objectives for 2030 relative to 2005.	The implementation of the Drought Plan may have some influence on air quality, through operational activities. The SEA should consider the need to ensure compliance with the new air quality objectives for 2030.
Directive on the reduction of national emissions of certain atmospheric pollutants (2016/2284/EU)	Air	It establishes the emission reduction commitments for the Member States' anthropogenic atmospheric emissions of sulphur dioxide (SO_2), nitrogen oxides (NO_x), non-methane volatile organic compounds (NMVOC), ammonia (NH_3) and fine particulate matter (PM2,5) and requires that national air pollution control programmes be drawn up. It establishes the following objectives: ▪ Improve air quality across the EU ▪ Reduce health impacts and environmental damage caused by air pollution	The implementation of the Drought Plan may have some influence on air quality, through operational activities. The SEA should consider the need to ensure compliance with the EU's long-term air quality goals for specific anthropogenic atmospheric emissions.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		▪ Contribute to achieving the EU's long-term air quality goals as outlined in the 7th Environment Action Programme and the Clean Air Programme for Europe.	
Regulation establishing measures for the recovery of the stock of European eel 2007 (2007/1100/EC)	Biodiversity	It establishes a framework for the protection and sustainable use of the stock of European eel of the species *Anguilla anguilla* in Community waters, in coastal lagoons, in estuaries, and in rivers and communicating inland waters of Member States that flow into the seas in ICES areas III, IV, VI, VII, VIII, IX or into the Mediterranean Sea. Advice from the International Council for the Exploration of the Sea (ICES) in 2006 indicated that the stock of the European eel (*Anguilla anguilla*) is outside safe biological limits across European waters. The population has declined significantly, reducing to 5% of the original 1980s stock levels. In response to this advice, the European Union adopted Council Regulation (EC) No 1100/2007, which requires Member States to undertake a series of measures aimed at the recovery of eel stock. The goal is to achieve 40% escapement of adult eels, relative to that in absence of anthropogenic factors, to sea to spawn. The EU Regulation was transposed into UK law under The Eels (England and Wales) Regulations 2009. Eleven Eel Management Plans have been prepared, one for each River Basin identified in England and Wales. The plans outline the current situation and how we intend to achieve the targets required by the European Regulation. Such measures include a reduction in fishing pressure, improving access and habitat quality, and reducing the impacts of entrainment. The measures that will require the installation of passes at obstructions and screens at abstraction and discharge points that prevent the migration of eels.	The implementation of the Drought Plan may have some influence on migratory fish species (including European eel) during all life stages of the eel and their migration routes, through altering operational activities in surface waters which are communicating with coastal waters. The impacts of the Drought Plan drought actions on migratory fish species must be considered as part of the SEA and in the EAR for individual drought actions.
EU Biodiversity Strategy for 2030 (2020), part of the European Green Deal	Biodiversity	The EU Biodiversity Strategy to 2020 ("Our life insurance, our natural capital") was succeeded by the EU Biodiversity Strategy for 2030, as part of the European Green Deal. The new Strategy objectives is to put Europe's biodiversity on the path to recovery by 2030 for people benefit, climate and planet. The major key commitments of the Strategy are: ▪ Protecting and restoring nature in the EU - 30% of EU land and sea to be legally protected. - 10% strictly protected, focusing on high biodiversity value areas. ▪ Restoring degraded ecosystems - Launch of an EU Nature Restoration Plan. - Proposal for a Nature Restoration Law with binding targets. - Restore at least 25,000 km of rivers to free-flowing state. ▪ Enabling transformative change - Integrate biodiversity into public and business decision-making. - Improve governance, enforcement, and implementation. - Mobilise €20 billion/year for biodiversity. ▪ Making the EU a global leader - Promote an ambitious global biodiversity framework. - Reduce the EU's global ecological footprint. - Support biodiversity in partner countries.	The implementation of the Drought Plan may influence biodiversity and as such the SEA should take account of the need to comply with the key commitments of the EU Biodiversity Strategy for 2030.
Birds Directive (2009/147/EC)	Biodiversity	Birds Directive 2009/147/EC replaced Directive 1979/409/EEC and is the cornerstone of EU legislation for the conservation of wild birds. It relates to the conservation of all species of naturally occurring birds in the wild state in the European territory of the Member States to which the Treaty applies. It covers the protection, management and control of these species and lays down rules for their exploitation. It shall apply to birds, their eggs, nests and habitats.	The implementation of the Drought Plan may have some influence on bird species, through operational activities and SEA should seek to protect, maintain and conserve birds' habitats and populations. The impacts of the Drought Plan drought actions on bird species must be considered as part of the SEA.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		Key objectives of the Directive are: ▪ Protect all wild bird species naturally occurring in the EU ▪ Conserve their habitats, eggs, and nests ▪ Ensure bird populations are maintained or restored to levels that meet ecological, scientific, and cultural requirements, while considering economic and recreational needs.	
Habitats Directive (1992/43/EEC)	Biodiversity	The main aim of the Habitats Directive is to promote the maintenance of biodiversity, taking account of economic, social, cultural and regional requirements. While the Directive makes a contribution to the general objective of sustainable development; it ensures the conservation of a wide range of rare, threatened or endemic species, including around 450 animals and 500 plants. Some 200 rare and characteristic habitat types are also targeted for conservation in their own right. The Directive provides for a ban on the downgrading of breeding and resting places for certain strictly protected animal species. Exceptions to the strict protection rules can be granted under very specific conditions. The Habitats Directive also establishes the EU wide Natura 2000 ecological network of protected areas. For these areas it provides a high level of safeguards against potentially damaging developments. Together with the Birds Directive, the Habitats Directive forms the backbone of EU nature protection legislation.	The implementation of our Drought Plan may have some influence on natural habitats and of wild fauna and flora, through activities associated with drought actions. SEA should seek to protect, maintain and conserve natural habitats and of wild fauna and flora. The impacts of the Drought Plan drought actions on habitats must be considered as part of the SEA.
Directive on Animal health requirements for aquaculture animals and products thereof, and on the prevention and control of certain diseases in aquatic animals (2006/88/EC)	Biodiversity	The Directive sets out rules on animal health concerning aquaculture animals and related products which apply to the marketing, importation and transit of such products. It also establishes measures aimed at the prevention and control of diseases in aquaculture animals as well as making further provisions regarding the authorisation to aquaculture production businesses and processing establishments.	Directive 2006/88/EC is not directly referenced in the Drought Plan, but it may have indirect relevance in specific contexts, especially where aquaculture or aquatic ecosystems intersect with water resource management (e.g. during droughts, reduced water levels and quality can increase disease risks in aquaculture systems). If the case, then SEA should seek to consider impacts on aquaculture if water abstraction or quality changes affect local fish farms or natural aquatic habitats.
A Clean Planet for all: A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy (2018)	Climatic factors	The long-term strategy sets out Europe's commitment to lead in global climate action and to present a vision that can lead to achieving net-zero greenhouse gas emissions by 2050 through a socially-fair transition in a cost-efficient manner. It looks into the portfolio of drought actions available for Member States, business and citizens, as well as into how these can contribute to the modernisation of our economy and improve the quality of life of Europeans, protect the environment, and provide for jobs and growth.	The Drought Plan should ensure the compliance with climate neutrality by 2050, energy efficiency and circular economy, bioeconomy and carbon sinks, etc. SEA should seek to consider environmental integration of climate and encourage alignment with UN Sustainable Development Goals, EU Green Deal and Clean Energy Package.
Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources (recast)- Recast Renewable Energy Directive (RED II)	Climatic factors	The RED II sets a binding EU-wide target of 32% renewable energy by 2030 and introduces updated rules for self-consumption, renewable heating and cooling, and transport fuels. RED II was further amended (2023) to increase the EU's renewable energy target to 42.5% by 2030, with an aspirational goal of 45%.	The Drought Plan should encourage the use of low-carbon, energy-efficient water management systems, reduce reliance on grid energy during drought-related stress on infrastructure etc. SEA should seek to set binding renewable energy targets, promoting sustainable energy transitions and to assess cumulative environmental impacts and synergies across sectors.
Energy Act 2013	Climatic factors	The Act with further updates makes provides a framework for delivering secure, affordable and low carbon energy. It includes provisions for decarbonisation and the duties in relation to it.	The implementation of our Drought Plan may have an influence upon total energy use. The SEA should seek to promote energy efficiency, as well as seeking to reduce the effects of climate change through greenhouse gas emissions. The SEA should also promote the use of renewable energy, where relevant.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
European Commission Environmental Liability Directive (2004/35/EC)	Cross-cutting	The Directives relates to the prevention and remedying of environmental damage (ELD) and establishes a framework based on the polluter pays principle to prevent and remedy environmental damage. The Directive defines "environmental damage" as damage to protected species and natural habitats, damage to water and damage to soil.	The implementation of our Drought Plan may have some influence on environment, through operational activities associated with drought actions and should encourage drought planning by long-term resilience, water efficiency, ecosystem protection, sustainable resource management, cross-sectorial coordination, etc. The SEA should seek to promote alignment with Broader EU Goals.
Directive on the assessment of the effects of certain plans and programmes on the environment (2001/42/EC)	Cross-cutting	The Directive, known as the SEA Directive, sets out the requirement for the assessment of certain plans and programmes on the environment. An SEA is mandatory for plans/programmes which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste/ water management, telecommunications, tourism, town & country planning or land use and which set the framework for future development consent of projects listed in the EIA Directive. SEA is also required where plans/programmes have been determined to require an assessment under the Habitats Directive.	The implementation of our Drought Plan should comply with the Directive requirements. The Directive sets the basis for SEA as a whole and therefore indirectly covers all objectives.
The Convention for the Protection of the Architectural Heritage of Europe (Granada Convention) (1985)	Historic environment	The Convention sets out to reinforce and promote policies for the conservation and enhancement of Europe's heritage. It also affirms the need for European solidarity with regard to heritage conservation and is designed to foster practical co-operation among the Parties. It establishes the principles of "European co-ordination of conservation policies" including consultations regarding the thrust of the policies to be implemented.	The implementation of our Drought Plan may have some influence on architectural heritage, through operational activities associated with drought actions. The SEA should take into account the need to conserve heritage.
The European Convention on the Protection of Archaeological Heritage (Valletta Convention) (1992)	Historic environment	The Convention aims to protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study.	The implementation of our Drought Plan may have some influence on architectural heritage, through operational activities associated with drought actions. The SEA should take into account the need to conserve heritage.
The European Landscape Convention (2006)	Landscape	The Convention is also known as the Florence Convention and it aims to promotes the protection, management and planning of European landscapes and organises European co-operation on landscape issues.	The implementation of our Drought Plan may influence landscape through operational activities associated with drought actions. The SEA should consider the need to maintain or enhance the quality of the region's landscapes and the potential enjoyment of these landscapes.
The Environmental Noise Directive (2002/49/EC)	Population and human health	The Directive is the EU's main instrument to identify noise pollution levels and covers the following three key action areas: the determination of exposure to environmental noise; ensuring that information on environmental noise and its effects is made available to the public; and preventing and reducing environmental noise where necessary and preserving environmental noise quality where it is good. It applies to noise to which humans are exposed, particularly in built-up areas, in public parks or other quiet areas in an agglomeration, in quiet areas in open country, near schools, hospitals and other noise-sensitive buildings and areas. It does not apply to noise that is caused by the exposed person himself, noise from domestic activities, noise created by neighbours, noise at workplaces or noise inside means of transport or due to military activities in military areas.	The implementation of our Drought Plan may influence noise level through operational activities associated with drought actions. The SEA should consider the need to prevent and preserve and reduce environmental noise and to protect sensitive receptors.
European Soils Charter (2003)	Soil	The key provisions of the European Soils Charter are: ▪ recognises soil as a non-renewable resource ▪ calls for integrated and sustainable soil management at national and international levels ▪ urges member states to implement monitoring, research, and public awareness initiatives to combat soil degradation ▪ highlights threats such as erosion, pollution, salinisation, urban sprawl, and loss of organic matter.	The implementation of our Drought Plan may influence soil quality or soil – water interdependence through operational activities associated with drought actions. The SEA should seek to ensure that the quality soils, is protected or enhanced.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
Thematic Strategy for Soil Protection (2006)	Soil	The strategy aimed to establish a comprehensive EU framework for soil protection, and it identified key threats to soil: erosion, organic matter decline, contamination, salinisation, compaction, sealing, biodiversity loss, floods, and landslides.	The implementation of our Drought Plan may influence soil – water interactions, land use and vegetation through operational activities associated with drought actions. The SEA should seek to ensure compliance with the framework for assessing soil-related impacts and prevent soil degradation.
The Nitrates Directive (91/676/EEC)	Water	The Nitrates Directive is designed to: ▪ reduce water pollution from agricultural activities by limit nitrate contamination in groundwater, surface water, and coastal waters ▪ and preventing further such pollution by implementing proactive measures to avoid futures nitrate pollution, especially in vulnerable ecosystems	The implementation of our Drought Plan may influence water quality through operational activities associated with drought actions. The SEA should seek to ensure compliance with the Directive requirements related to water quality.
The Water Framework Directive (2000/60/EC)	Water	The Water Framework Directive establishes a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater. It also encourages the sustainable use of water resources. Key objectives are general protection of the aquatic ecology, specific protection of unique and valuable habitats, protection of drinking water resources, and protection of bathing water.	The implementation of our Drought Plan may influence water quality through operational activities associated with drought actions. The SEA should seek to ensure compliance with the requirements of the directive by preventing further deterioration and protecting the status of aquatic ecosystems and terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems.
Urban Wastewater Treatment Directive (91/271/EEC)	Water	Urban Wastewater Treatment Directive establishes a framework to protect the environment from the adverse effects of urban waste water discharges and waste water from certain industrial sectors. The main objectives are: ▪ Ensure the collection, treatment, and discharge of urban waste water. ▪ Require appropriate treatment of waste water from certain industrial sectors. ▪ Protect surface waters, coastal waters, and sensitive areas from pollution.	Our Drought Plan should ensure water availability during dry periods while protecting the environment. The SEA should seek to ensure compliance by promoting reducing pollution loads to support ecological status improvements in water bodies and by promoting integrated urban wastewater management plans.
Drinking Water Directive (recast) ((EU) 2020/2184)	Water	Directive on the quality of water intended for human consumption aims to ensure safe, clean, and accessible drinking water for all EU citizens while enhancing environmental protection and transparency. The main objectives are: ▪ Protect human health from contaminants in drinking water. ▪ Ensure water is wholesome and clean. ▪ Improve access to safe drinking water, especially for vulnerable and marginalised groups. ▪ Promote transparency and consumer awareness. ▪ Support climate adaptation and circular economy goals.	The implementation of our Drought Plan may influence drinking water quality through operational activities associated with drought actions. The SEA should seek to ensure compliance with the directive requirements by improving water quality and ecosystem health, by public engagement, by promoting equitable access and sustainability, etc.
Directive on Bathing Water (2006/7/EC), 2014 repealing Directive 76/160/EEC	Water	Bathing Water Directive aims to preserve, protect, and improve bathing water quality across the EU, ensuring public health protection and environmental sustainability. The Directive applies to surface waters where large numbers of people are expected to bathe and excludes swimming pools, spa pools, and artificially confined waters used for therapeutic purposes.	The implementation of our Drought Plan may influence bathing water quality through operational activities associated with drought actions. The SEA should seek to ensure compliance with the directive requirements by enhancing water quality and ecosystem health, by supporting public health and recreation, by public engagement, etc.
Groundwater Directive (2006/118/EC)	Water	Groundwater Directive provides specific measures to ensure the chemical quality of groundwater across Member States. The main objectives are: ▪ Prevent and Control Pollution ▪ Achieve Good Chemical Status ▪ Reverse Pollution Trends ▪ Protect Drinking Water Sources ▪ Coordinate Monitoring and Reporting.	Our Drought Plan may have some influence on the groundwater through operational activities associated with drought actions. The SEA should seek to ensure compliance with the requirements of the directive by protecting water quality, preventing pollution, safeguarding drinking water sources, supporting ecosystem integrity, etc.
Marine Strategy Framework Directive (2008/56/EEC)	Water	Marine Strategy Framework Directive establishes a framework for taking the necessary measures to achieve or maintain good environmental status in the marine environment.	Our Drought Plan may have some influence on the marine environment through operational activities in marine areas associated with drought actions. The SEA should seek to ensure compliance with the requirements of the directive by protecting and preserving the marine environment, preventing its deterioration or restoring adversely affected marine ecosystems, etc.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
Directive on the Assessment and Management of Flood Risks (2007/60/EC)	Water	The Floods Directive establishes a framework for the assessment and management of flood risks, aiming at the reduction of the adverse consequences for human health, the environment, cultural heritage and economic activity associated with.	The Floods Directive is not directly referenced in our Drought Plan, but it may have indirect relevance in the context of climate resilience, catchment management, and integrated water planning.
Blueprint to Safeguard Europe's Water Resources (2012)	Water	The Blueprint to Safeguard Europe's Water Resources (2012) is a strategic policy document from the European Commission aimed at improving the implementation of EU water policy and ensuring the long-term sustainability of Europe's water resources. The main objectives are: ▪ Improve Implementation of Existing Water Legislation ▪ Integrate Water Policy with Other Sectors ▪ Address Water Scarcity and Drought ▪ Enhance Knowledge and Data ▪ Promote Green Infrastructure and Nature-Based Solutions.	Our Drought Plan may have some influence on the water resource through operational activities associated with drought actions. The SEA should seek to ensure compliance with the requirements of the policy to ensure long-term sustainability of the water resources.
National			
The Eels (England & Wales) Regulations 2009 (as amended)	Biodiversity	The Eels Regulations implement European Council Regulations 1100/2007 establishing measures for the recovery of the stock of European eel and aims to recover the declining stock of European eel (*Anguilla anguilla*). The goal is to ensure that at least 40% of adult eels (silver eels) return to the sea to spawn. The main key provisions are: ▪ Records and Restocking ▪ Eel Licences ▪ Passage of Eels ▪ Enforcement and Penalties.	Our Drought Plan may have some influence on the eels population and habitats through operational activities associated with drought actions. The SEA should seek to ensure compliance with the regulations requirements to restore eel populations, to contribute to healthier river ecosystems, etc.
Salmon and Freshwater Fisheries Act 1975	Biodiversity	Salmon and Freshwater Fisheries Act remains a key piece of legislation governing the protection, management, and regulation of salmon and freshwater fisheries in England and Wales. The Act introduces comprehensive rules to protect salmon and freshwater fish, regulate fishing practices, and support sustainable fisheries. The key objectives are: ▪ Protect fish populations (especially salmon and trout) ▪ Ensure safe migration routes ▪ Prevent illegal fishing and poaching ▪ Regulate fishing methods and seasons ▪ Support fishery management and enforcement.	Our Drought Plan may have some influence on the salmon population and habitats through operational activities associated with drought actions. The SEA should seek to maintain fish passage, to ensure compliance with the Act's objectives. The SEA should seek to address any potential issues or effects on existing measures to address fish passage.
UK Biodiversity Framework, 2024	Biodiversity	The UK Biodiversity Framework (UKBF) has been developed in response to the Kunming-Montreal Global Biodiversity Framework (GBF), agreed at the Fifteen Conference of the Parties (COP15) of the Convention on Biological Diversity (CBD) in December 2022 and provides a UK-wide strategic framework for biodiversity recovery. The key features are: ▪ BNG ▪ Nature Recovery ▪ Planning Integration ▪ Consultation and Stakeholder Engagement	Our Drought Plan may have some influence on the biodiversity through operational activities associated with drought actions. The SEA should seek to reduce biodiversity losses and to comply with the Framework's key features.
Making Space for Nature - A review of England's Wildlife Sites and Ecological Network (2010)	Biodiversity	Commissioned by Defra, the report assessed whether England's existing wildlife sites were sufficient to support biodiversity in the face of climate change and other pressures. The main recommendations are: ▪ Improve protection and management of designated wildlife sites ▪ Establish Ecological Restoration Zones (now called Nature Improvement Areas) ▪ Protect non-designated sites that contribute to ecological networks	Our Drought Plan may have some influence on the existing wildlife sites through operational activities associated with drought actions. The SEA should seek to maintain the quality of habitats and biodiversity.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		▪ Use ecosystem services (e.g., flood control, carbon storage) to support biodiversity goals.	
Marine and Coastal Areas Access Act 2009	Biodiversity	The Act provides the legal framework for managing the UK's marine environment. It aims to deliver sustainable development in marine areas while protecting biodiversity and improving public access to the coast. The Act introduced the following key provisions: ▪ Marine planning – Establishes a system for marine spatial planning to balance environmental, social, and economic needs. ▪ Marine licensing – Regulates activities in the marine environment to prevent harm to ecosystems. ▪ Marine Conservation Zones (MCZs) – Designates areas to protect nationally important marine wildlife, habitats, and geology. ▪ Improved coastal access – Enhances public access to the English coast through the creation of a continuous coastal path.	Our Drought Plan is unlikely to directly affect marine or coastal areas; however, any actions influencing river flows or water quality could have downstream impacts on estuarine and coastal ecosystems. The SEA should seek to ensure compliance with the Act's objectives, particularly in relation to protecting marine biodiversity and maintaining water quality.
The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024	Biodiversity	The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024 form part of the statutory framework implementing mandatory Biodiversity Net Gain (BNG) under Schedule 7A of the Town and Country Planning Act 1990. The Regulations introduce amendments and clarifications to ensure that planning applications provide the necessary information to demonstrate compliance with BNG requirements. They support the requirement for most planning permissions (from February 2024) to deliver a minimum 10% biodiversity net gain and clarify how biodiversity gain plans are assessed and approved.	Our Drought Plan may influence biodiversity outcomes through operational activities that affect habitats, watercourses, or ecological networks. While the Regulations apply primarily to planning applications, drought actions that involve construction, habitat alteration, or land-use changes may indirectly interact with BNG requirements. Activities that alter habitat extent or condition could affect biodiversity values used in BNG calculations.
Blueprint for Halting and Reversing Biodiversity Loss: the UK's National Biodiversity Strategy and Action Plan for 2030 (2025)	Biodiversity	The strategy and action plan sets out how the UK will meet the targets of the Kunming–Montreal Global Biodiversity Framework, agreed at COP15 in 2022. The plan outlines coordinated action across the four UK nations, Overseas Territories, and Crown Dependencies to halt and reverse biodiversity loss by 2030. It commits the UK to achieving all 23 Global Biodiversity Framework global targets, including expanding protected areas, restoring ecosystems, improving water and marine environments, and reducing pollution pressures.	Our Drought Plan may influence biodiversity through operational activities affecting freshwater habitats, water availability, aquatic species, and ecological connectivity. Actions that reduce flows, alter water levels, or disturb sensitive habitats could interact with the strategy and action plan goals relating to species recovery, freshwater ecosystem restoration, and pollution reduction.
National Framework for Water Resources 2025: water for growth, nature and a resilient future (2025)	Water resources/ Environment	The Framework sets out England's long-term water needs and the scale of action required to secure resilient, sustainable water supplies for people, nature, and the economy. It identifies growing pressures on water resources from population growth, climate change, energy demand, and food production, and highlights a potential five billion litre per day shortfall by 2055 if no action is taken. The Framework builds on the 2020 version, strengthening multi-sector water resources planning across national, regional, and catchment scales, and emphasises reducing unsustainable abstraction and improving environmental outcomes.	Our Drought Plan directly interacts with the Framework's goals: drought actions influence water availability, abstraction pressures, river flows, and environmental resilience. The Framework highlights the need for demand management and coordinated supply measures, both of which shape how drought actions should be designed and assessed. Drought interventions may also interact with water transfers, storage, and infrastructure plans considered at regional or national scale.
National Planning Policy Framework (2024)	Planning	The framework sets out the Government's planning policies for England and how these should be applied. It provides a framework for sustainable development, guiding plan-making and decision-making to balance economic growth, housing delivery, and environmental protection. The key objectives are: ▪ Achieving sustainable development ▪ Delivering sufficient housing supply (including mandatory housing targets and use of "Grey Belt" land) ▪ Promoting sustainable transport and infrastructure ▪ Meeting the challenge of climate change, flooding, and coastal change ▪ Conserving and enhancing the natural and historic environment	Our Drought Plan is unlikely to directly conflict with NPPF objectives; however, any actions affecting water resources, designated sites, or biodiversity should align with the principles of sustainable development and environmental protection set out in the NPPF. The SEA should ensure compliance with NPPF requirements, particularly regarding climate resilience, water management, and biodiversity conservation.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		▪ Supporting biodiversity through measures such as BNG	
The Conservation of Habitats and Species Regulations (2010) (as amended)	Biodiversity	The Conservation of Habitats and Species Regulations 2010 (as amended) is a key piece of UK legislation that implements the EU Habitats Directive (92/43/EEC) and parts of the Birds Directive (2009/147/EC) into domestic law. The Regulations aim to protect biodiversity by conserving natural habitats and wild species across the UK. The key provisions are: ▪ Designation of Sites ▪ Protection of Species ▪ Planning and Development Controls ▪ Marine and Coastal Protection ▪ Monitoring and Enforcement.	The implementation of our Drought Plan may have some influence on natural habitats and of fauna and flora and birds, through operational activities associated with drought actions. SEA should seek to protect, maintain and conserve natural habitats and of wild species. The impacts of our Drought Plan drought actions on habitats must be considered as part of the SEA.
The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations (2019)	Biodiversity	The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 were introduced to ensure that the UK's nature conservation laws remained functional and enforceable after Brexit. The purpose of the 2019 Amendment was: ▪ To correct deficiencies in retained EU law following the UK's exit from the EU. ▪ To transfer powers previously held by the European Commission to UK ministers and authorities. ▪ To ensure that the Natura 2000 network of protected sites continues under a new UK framework called the National Site Network.	The implementation of our Drought Plan may have some influence on natural habitats and species, through operational activities associated with drought actions. SEA should seek to protect, maintain and conserve natural habitats and species.
Delivering a healthy natural environment. Ecosystem approach action plan, Defra (2010)	Biodiversity	The Delivering a Healthy Natural Environment: An Ecosystem Approach Action Plan, Defra, 2010 was designed to embed the ecosystem approach into decision-making across government and public bodies. The plan aimed to mainstream the ecosystem approach, and it emphasised working with nature, rather than against it, to achieve sustainable outcomes.	The implementation of our Drought Plan may have some influence on natural ecosystem, through operational activities associated with drought actions. SEA should seek to comply with the Plan requirement by embedding ecosystem services valuation into environmental assessments, supporting cumulative impact analysis and providing a framework for identifying mitigation opportunities.
The Invasive Alien Species (Enforcement and Permitting) Order 2019	Biodiversity	The Order enforces Regulation (EU) No. 1143/2014 on the prevention and management of the introduction and spread of invasive alien species. It aims to: ▪ Prevent the introduction and spread of INNS ▪ Protect native biodiversity and ecosystems ▪ Align UK enforcement with retained EU law post-Brexit.	The implementation of our Drought Plan may have some influence on introducing invasive alien species, through operational activities associated with drought actions. SEA should seek to prevent the introduction and spread of invasive non-native species.
The Great Britain INNS, Defra (2015), updated by the 2022-2030 strategy	Biodiversity	The Great Britain INNS Strategy provided a national framework to minimise risks posed by INNS, prevent their introduction and spread and eradicate or manage established species to reduce their impact on biodiversity, ecosystems, and the economy. The key objectives are: ▪ Prevention ▪ Early Detection and Rapid Response ▪ Long-Term Management and Control ▪ Coordination and Collaboration.	The implementation of our Drought Plan may have some influence on introducing INNS, through operational activities associated with drought actions. SEA should seek to prevent the introduction and spread of INNS and to respond quickly in case of detection.
A narrative for conserving freshwater and wetland habitats in England, Natural England (2016)	Biodiversity	A narrative for conserving freshwater and wetland habitats in England, Natural England, 2016 provides an overview of circumstances relating to the conservation of freshwater and wetland habitats in England, considering their ecological function, the natural and anthropogenic factors affecting them, the principles that should be applied to their management, and the respective roles of the main policy mechanisms involved in their conservation. It covers all running and standing water habitats, of whatever size, and terrestrial wetland habitats including bogs, fens, swamp and wet woodland.	The implementation of our Drought Plan may have some influence on freshwater and wetland habitats, through operational activities associated with drought actions. SEA should seek to comply with the narrative by promoting the ecological function as a baseline, identification of pressures, promoting landscape-scale conservation and hydrological connectivity principles, etc.
Strategic Direction – Recovering Nature for	Biodiversity	Strategic Direction – Recovering Nature for Growth, Health and Security sets out how Natural England will lead and support nature recovery across England over the next five	The implementation of our Drought Plan may have some influence on nature recovery, through operational activities associated with drought actions.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
Growth, Health and Security, April 2025		years, aligning environmental goals with national priorities for economic growth, public health, and climate resilience. The strategic priorities are: ▪ Accelerate Nature Recovery ▪ Tackle Root Causes of Decline ▪ Enable Nature-Positive Development ▪ Support Sustainable Land Use ▪ Shape Better Places ▪ Connect People with Nature.	SEA should seek to comply with the strategic priorities of the strategy.
State of Natural Capital Annual Report 2024, Natural Capital Committee (2024)	Biodiversity	State of Natural Capital Annual Report 2024 provides a systematic, evidence-based assessment of the condition of England's natural capital and the risks to the benefits it provides. It is designed to inform policy makers, planners, and investors about the urgent need to integrate nature into decision-making. The key components are: ▪ Comprehensive Ecosystem Assessment ▪ Natural Capital Risk Register ▪ Policy Relevance ▪ Indicators and Data Appendix.	The implementation of our Drought Plan may have some influence on freshwater ecosystems and wetlands, through operational activities associated with drought actions. SEA should seek to define baseline environmental conditions, to perform risk identification, policy integration and mitigation.
Standing Advice on Protected Species, Natural England (20244, updated 2025)	Biodiversity	The Standing Advice on Protected Species from Natural England serves as a key resource for local planning authorities when assessing development proposals that may affect protected species in England. This guidance helps local planning authorities determine whether a planning application could harm or disturb protected species and outlines how to proceed without needing to consult Natural England for every case.	The implementation of our Drought Plan may have some influence on protected species, through operational activities associated with drought actions. SEA should seek to prevent to harm or disturb the protected species.
Climate Change Act 2008	Climatic factors	Climate Change Act sets out a framework for reducing greenhouse gas emissions and adapting to climate change impacts in the UK. The key provisions are: ▪ Introducing legally binding emissions targets ▪ Introducing carbon budgets ▪ Organising a Climate Change Committee ▪ Publish a National Adaptation Programme.	The implementation of our Drought Plan may have some influence on climate through operational activities associated with drought actions. SEA should seek to reduce greenhouse gas emissions and adapt to climate change impacts.
UK Climate Change Risk Assessment, Defra (2022)	Climatic factors	UK Climate Change Risk Assessment, 2022 is the third five-yearly assessment of climate risks to the UK. It identifies 61 climate risks and opportunities across multiple sectors and prioritises eight key risk areas for urgent action over the next two years. Eight priority risk areas have been identified: ▪ Terrestrial and Freshwater Habitats and Species ▪ Soil Health ▪ Natural Carbon Stores and Sequestration ▪ Crops, Livestock, and Commercial Trees ▪ Supply Chains and Vital Services ▪ Power System Reliability ▪ Human Health and Productivity ▪ International Climate Impacts.	The implementation of our Drought Plan may identify climate risks and opportunities through operational activities associated with drought actions. SEA should seek to reduce greenhouse gas emissions and adapt to climate change impacts.
Sustainability Reporting Guidance 2025-26 (2025)	Sustainability	Sustainability Reporting Guidance it sets out mandatory sustainability reporting requirements for UK central government bodies that prepare annual reports and accounts under the Government Financial Reporting Manual. The key features are: ▪ Applicability (mandatory for central government bodies for the 2025–26 reporting period and actional for other public sector bodies, but recommended	The SEA should seek to ensure integrated environmental reporting, materiality and transparency, alignment with Task Force on Climate-related Financial Disclosures, support for Strategic Planning, etc.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		▪ Reporting Framework (Based on a “comply or explain” approach) ▪ Alignment with Task Force on Climate-related Financial Disclosures ▪ Proposing streamlined metrics ▪ Integrated Reporting (emphasises data quality, proportionality, and integration with financial reporting boundaries).	
The Third National Adaptation Programme, Defra, (2023)	Sustainability	The Third National Adaptation Programme sets out the UK Government’s strategy for adapting to the impacts of climate change. It outlines actions across government, public bodies, and sectors to build resilience and reduce climate-related risks. The programme addresses 61 climate risks and opportunities identified in the UK Climate Change Risk Assessment 2022. The priorities areas are: ▪ Infrastructure resilience ▪ Water and flood risk management ▪ Health and wellbeing ▪ Natural environment and biodiversity ▪ Food security and supply chains ▪ Business continuity and finance.	The implementation of our Drought Plan may impact climate through operational activities associated with drought actions. SEA should seek to address climate risks and opportunities.
Environmental Improvement Plan 2025, UK Government (2025)	Sustainability	The Environmental Improvement Plan 2025 is a strategic framework for improving England’s natural environment up to 2043. The previous Environmental Improvement Plan was revised and set new interim targets for the statutory Environment Act 2021 targets. Ten environmental goals have been set out: ▪ Restored nature ▪ Air ▪ Water ▪ Chemicals and pesticides ▪ Waste ▪ Resources ▪ Climate change ▪ Reducing environmental hazards ▪ Biosecurity ▪ Access to nature.	The implementation of our Drought Plan may have some influence on the natural environment through operational activities associated with drought actions. SEA should seek to reduce the impacts to the natural environment and comply with environmental goals.
Marine and Coastal Access Act (2009)	Marine environment	Marine and Coastal Access Act was designed to create a comprehensive framework for managing UK marine areas sustainably, balancing environmental protection with economic and recreational use. The key provisions are: ▪ Marine Management Organisation ▪ Marine Planning ▪ Marine Licensing ▪ Marine Conservation Zones ▪ Coastal Access ▪ Exclusive Economic Zone ▪ Fisheries and Nature Conservation.	Our Drought Plan is unlikely to directly affect marine or coastal areas; however, any actions influencing river flows or water quality could have downstream impacts on estuarine and coastal ecosystems. The SEA should seek to ensure compliance with the Act’s objectives, particularly in relation to protecting marine biodiversity and maintaining water quality.
The Wildlife and Countryside Act 1981 (as amended)	Biodiversity	The Wildlife and Countryside Act provides a legal framework for the protection of wild animals, birds, plants, and their habitats. It also governs public rights of way, SSSIs, and National Parks. The key provisions are: ▪ Protection of Wildlife	The implementation of our Drought Plan may have some influence on wildlife through operational activities associated with drought actions. SEA should seek to promote the protection of the wildlife.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		▪ Control of Invasive Species ▪ Licensing ▪ SSSIs ▪ Public Rights of Way.	
Environment Protection Act 1990	Environment	Environment Protection Act remains a core piece of UK environmental legislation, particularly in relation to waste management, pollution control, and contaminated land. It has been amended multiple times to reflect evolving environmental priorities and align with newer laws like the Environment Act 2021. The key parts of the Act are: ▪ Part I – Pollution Control ▪ Part II – Waste on Land ▪ Part IIA – Contaminated Land.	The implementation of our Drought Plan may have some influence on the environment through operational activities associated with drought actions. SEA should seek to promote the protection of the environment.
Environment Act 2021	Environment	Environment Act represents the UK's most comprehensive environmental legislation since Brexit. It provides a legal framework for environmental governance, introduces binding targets, and establishes new institutions and powers to protect and improve the natural environment. Environment Act purpose was to enshrine environmental protection into UK law, replacing EU-derived regulations post-Brexit, and to set long-term goals for improving air and water quality, biodiversity, and waste/resource efficiency. The key components are: ▪ Environmental Governance ▪ Legally Binding Targets ▪ Waste and Resource Efficiency ▪ Nature Recovery ▪ Water Management ▪ Air Quality ▪ Deforestation and Supply Chains.	The implementation of our Drought Plan may have some influence on the environment through operational activities associated with drought actions. SEA should seek to promote the protection of the environment.
Countryside and Rights of Way (CROW) Act 2000	Landscape	Countryside and Rights of Way Act is governing public access to the countryside and the protection of natural landscapes in England and Wales. Its purpose is to provide the public with greater access to the countryside, improve the management of public rights of way, and enhance nature conservation. The key provisions are: ▪ Right to access certain types of land on foot for open-air recreation in England and Wales ▪ Public Rights of Way ▪ Nature Conservation ▪ National Parks and National Landscapes.	The implementation of our Drought Plan may have some influence on Countryside and Rights of Way through operational activities associated with drought actions. SEA should seek to comply with the Act provisions.
The Natural Environment and Communities Act 2006 (NERC Act)	Biodiversity and population	The Natural Environment and Communities Act was designed to promote the conservation of biodiversity, improve the management of the natural environment, support rural communities, establish Natural England as a statutory body. Some of its original provisions have been amended, repealed, or replaced by newer frameworks, particularly following the Environment Act 2021 and the Environmental Improvement Plan 2023. The key provisions are: ▪ Creation of Natural England ▪ Biodiversity Duty (Section 40) ▪ Biodiversity Lists (Section 41) ▪ Invasive Species and Wildlife Protection ▪ Rural Communities.	The implementation of our Drought Plan may have some influence on the natural environment through operational activities associated with drought actions. SEA should seek to comply with the Act provisions.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
EA2025 creating a better place, Environment Agency (2025)	Environment	EA2025 sets out the Environment Agency's priorities from 2020 to 2025. sets out how the Environment Agency will help deliver a healthier, greener, and more prosperous England by 2025. It aligns with the 25 Year Environment Plan and the Environment Act 2021, acting as a strategic compass for environmental leadership and resilience. The long-term goals are: A Nation Resilient to Climate Change Healthy Air, Land, and Water Green Growth and a Sustainable Future.	The implementation of our Drought Plan may have some influence on the environment through operational activities associated with drought actions. SEA should seek to comply with the Report goals.
Natural Capital and Ecosystem Assessment Programme, UK Government, 2025	Biodiversity	Natural Capital and Ecosystem Assessment Programme is the UK government's largest environmental research and development initiative, launched to support evidence-based decision-making and policy development through natural capital approaches. Its purpose is to create a comprehensive baseline of England's land, freshwater, and coastal ecosystems by 2029, enabling better environmental decisions and investments that benefit both nature and society. The Strategic objectives are: ▪ Establish national natural capital monitoring as a strategic capability ▪ Improve environmental data quality and relevance for policy and planning ▪ Enable informed decisions by government, businesses, and the public ▪ Support sustainable funding and delivery models for long-term impact.	The implementation of our Drought Plan may have some influence on land, freshwater, and coastal ecosystems through operational activities associated with drought actions. SEA should seek to comply with the programme objectives.
Regional and local			
Water Resources East Regional Water Resources Plan (2025–2050)	Water	The Water Resources East Regional Plan sets out a long-term strategy to manage water resources across Eastern England. It addresses the growing supply demand imbalance, environmental degradation, and climate change impacts. The plan is multi-sectoral, covering public water supply, agriculture, energy, navigation, and environmental restoration.	Our Drought Plan may trigger temporary changes in water abstraction, supply operations, and demand management that could alter the trajectory or timing of measures proposed in the Water Resources East Plan. SEA should ensure that drought actions do not undermine long-term goals for environmental flow restoration, sustainable water use, and climate resilience.
Anglian Water Resource Management Plan (WRMP) 2024 (2023)	Water	This plan sets out Anglian Water's 25-year strategy to ensure a secure, sustainable, and resilient water supply across its region. It addresses key challenges including climate change, population growth, environmental protection, and drought risk. The plan includes demand management measures such as smart metering, leakage reduction, and water efficiency, alongside supply side drought actions like water reuse, desalination, and new reservoirs.	The implementation of our Drought Plan may have some influence on water resource infrastructure and operations. SEA should seek to promote the protection of water resources, support sustainable abstraction, and enhance climate resilience.
Affinity Water Water Resources Management Plan	Water	This plan sets out Affinity Water's a strategy over a minimum 25 years period, while looking forward 50 years into future. It addresses challenges including climate change, population growth, environmental protection, and drought risk. The plan includes demand management measures such as leakage reduction, smart metering, and water efficiency, alongside supply side drought actions like new sources, transfers, and drought permits.	The implementation of our Drought Plan may have some influence on water resource infrastructure and operations. SEA should seek to promote the protection of water resources, support sustainable abstraction, and enhance climate resilience.
Cambridge Water Water Resources Management Plan 2024	Water	This plan outlines Cambridge Water will ensure the continued supply of safe clean water to the customers whilst focusing on protecting and improving the environment over the next 25 years. The plan looks at how Cambridge Water can counteract these pressures, to continue to deliver a sustainable and resilience supply of water to meet the need of both the customers and to preserve the environment by committing to reducing the amount of water is abstracted.	The implementation of our Drought Plan may have some influence on water resource infrastructure and operations. SEA should seek to promote the protection of water resources, support sustainable abstraction, and enhance climate resilience.
Thames Water WRMP 2024 (2023)	Water	This plan outlines Thames Water's 25-year strategy to ensure a secure and sustainable water supply across London and the Thames Valley. It addresses challenges including population growth, climate change, and environmental pressures. The plan includes demand reduction measures such as smart metering, leakage reduction, and water	The implementation of our Drought Plan may have some influence on water resource infrastructure and operations. SEA should seek to promote the protection of water resources, support sustainable abstraction, and enhance climate resilience.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		efficiency, alongside major infrastructure proposals like the South East Strategic Reservoir Action and the Teddington Direct River Abstraction project.	
Anglian RBMP (2022)	Water	The RBMP outlines the environmental challenges facing water bodies across the Anglian River Basin District (RBD) and sets out strategic objectives and measures to address them. Objectives: address pollution, abstraction, physical changes, and invasive species; achieve good ecological/chemical status; and support sustainable use.	Our Drought Plan may affect water availability and infrastructure. SEA should align with ecological goals and support resilience.
Anglian Flood Risk Management Plan (FRMP) 2021–2027	Water	The FRMP outlines flood risks across the Anglian RBD and sets strategic measures to manage them. Objectives: reduce flood risk; adapt to climate change; promote nature-based solutions; and support sustainable land and water use.	Our Drought Plan is unlikely to affect flood risk given no construction or land take associated with drought actions and operation will be in severe drought conditions.
Thames FRMP 2021–2027	Water	The FRMP addresses significant flood risks across the Thames basin, including 43 Flood Risk Areas. Objectives: reduce multi-source flooding; protect habitats; and mitigate climate impacts.	Our Drought Plan may influence water availability and ecological pressures. SEA should align with conservation goals and support coordinated water management.
Anglian Water Drainage and Wastewater Management Plan (DWMP) (2023)	Water	The DWMP sets out Anglian Water's 25-year strategy to maintain, improve, and expand drainage and wastewater systems across the East of England. It addresses the triple challenge of climate change, population growth, and environmental protection, particularly for chalk streams and rivers. The plan includes risk assessments for over 600 catchments, promotes nature-based solutions, and aligns with other strategic frameworks such as the WRMP, RBMPs, and Local Plans.	The implementation of our Drought Plan may have some influence on drainage and wastewater infrastructure through operational activities associated with drought actions. SEA should seek to promote the protection of water quality, reduce pollution risks, and support climate resilience in wastewater systems.
Thames DWMP (2028)	Water	Thames Water's DWMP (2025–2050) outlines a best value approach to managing wastewater and drainage across London and the Thames Valley. It prioritises nature-based infrastructure, sustainable drainage, and river health improvements. The plan responds to pressures from climate change, urbanisation, and population growth, with an estimated £31.9bn investment over 25 years.	The implementation of our Drought Plan may influence wastewater and drainage systems, particularly in shared catchments. SEA should seek to support nature-based infrastructure and river health improvements outlined in the DWMP.
Site Improvement Plans (SIPs) for Natura 2000 Sites – London & South East Region	Biodiversity	The SIPs are part of the Improvement Programme for England's Natura 2000 Sites. They aim to ensure that Special Areas of Conservation and Special Protection Areas achieve and maintain favourable condition. SIPs provide strategic, site-specific actions to address threats and pressures affecting biodiversity.	The implementation of our Drought Plan may influence hydrological conditions and water quality, which are key concerns in SIPs SEA should consider SIPs to avoid adverse impacts on Natura 2000 sites, support ecosystem resilience, and align with conservation priorities and mitigation strategies.
Chalk-Streams First: A Permanent and Sustainable Solution to the Chilterns Chalk-Streams Crisis, Chalk-Streams First Coalition (2020)	Water resources and Biodiversity	Chalk-Streams First is a strategic plan by environmental groups including The Rivers Trust, WWF UK, and The Angling Trust, to restore natural flows to the rare chalk-streams of the Chilterns. It proposes reducing groundwater abstraction in the upper Colne and Lea valleys and replacing it with water from Thames Water's London network via the "Supply 2040" infrastructure project. The goal is to re-naturalise stream flows, boost ecological health, and improve climate resilience, with minimal impact on regional water resources.	The implementation of our Drought Plan may intersect with water abstraction and infrastructure development, which are central to the Chalk-Streams First proposal. SEA should consider this proposal to support biodiversity, reduce abstraction pressures, and enhance climate resilience in water-stressed catchments.
Suffolk & Essex Coast & Heaths National Landscape Management Plan (2023–2028)	Landscape	This Management Plan sets out the policy framework for conserving and enhancing the Suffolk & Essex Coast & Heaths National Landscape, formerly designated as an Area of Outstanding Natural Beauty (AONB). The plan outlines strategic objectives across themes such as nature recovery, climate change, land use, farming, and planning. It supports the Protected Landscapes Targets and Outcomes Framework, aligning with national goals including the Environmental Improvement Plan 2023 and the 30 by 30 nature recovery target.	The implementation of our Drought Plan may affect landscape character and ecological integrity through operational changes associated with drought actions. SEA should consider this Management Plan to ensure development respects the area's natural beauty, mitigates environmental impacts, and supports climate resilience.
Essex Heritage and Conservation Strategy	Historic Environment	Essex County Council provides a framework for managing and conserving the historic environment, including listed buildings, conservation areas, and archaeological sites. The strategy focuses on safeguarding heritage assets while supporting sustainable development. Key features include: ▪ Historic Environment Records (HER) – Comprehensive data on heritage assets.	Our Drought Plan is unlikely to directly impact built heritage; however, any actions affecting historic landscapes or water-dependent heritage assets should consider Essex HER data and conservation policies. The SEA should ensure compliance with Essex's heritage management objectives and avoid adverse effects on designated heritage sites.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		▪ Conservation areas – Designated zones for preservation and enhancement. ▪ Specialist advice – Guidance on planning, listed buildings, and heritage assessments. ▪ Community engagement – Promotes local involvement in heritage protection.	
Suffolk Heritage and Conservation Strategy	Historic Environment	Suffolk's approach integrates planning policy, archaeological advice, and cultural strategies to protect its historic environment. The strategy emphasizes early consideration of heritage in development proposals and promotes sustainable tourism linked to cultural assets. Key features include: ▪ Archaeological planning advice – Ensures heritage assets are considered in planning. ▪ HER – Used for desk-based assessments and evaluations. ▪ Conservation policy – Long-term preservation of archives and historic collections. ▪ Culture & Visitor Economy Strategy (2023–2028) – Balances heritage protection with tourism growth.	Our Drought Plan is unlikely to directly affect built heritage; however, any operational actions impacting historic landscapes or archaeological sites should align with Suffolk's conservation policies and HER guidance. The SEA should seek to protect heritage assets and maintain compliance with planning and conservation objectives.
Essex Cultural Strategy (2023–2028)	Historic Environment	The strategy sets out a vision to strengthen arts, culture, and creativity as drivers of economic growth, wellbeing, and community identity. It promotes sustainable development and place-making through cultural investment.	Our Drought Plan is unlikely to directly affect cultural infrastructure; however, any operational actions impacting landscapes or water-dependent heritage sites could influence cultural assets and visitor experiences. The SEA should seek to maintain the integrity of cultural landscapes and ensure alignment with the strategy's objectives for sustainable development and community wellbeing.
Culture, Heritage & Visitor Economy Strategy (Babergh & Mid Suffolk) 2023–2028	Historic Environment	This strategy aims to balance cultural heritage protection with tourism growth, supporting local identity and economic resilience. It emphasises collaboration and digital transformation to enhance visitor experiences.	Our Drought Plan may indirectly affect visitor economy and heritage sites if drought actions alter water-dependent landscapes or habitats. The SEA should seek to protect heritage assets and maintain compliance with the strategy's goals for sustainable tourism and cultural enhancement.
East Suffolk Visitor Economy Strategy (2022–2027)	Historic Environment	This strategy focuses on sustainable tourism and economic recovery post-pandemic, aiming to position East Suffolk as a leading destination while supporting environmental resilience.	Our Drought Plan is unlikely to directly conflict with tourism objectives; however, any actions affecting water quality or availability could influence visitor experiences and natural attractions. The SEA should ensure that drought actions do not compromise the strategy's aims for sustainability and environmental protection.
Stow Maries Great War Aerodrome Listed Building Heritage Partnership Agreement (LBHPA) (Maldon District)	Historic Environment	The LBHPA for Stow Maries Great War Aerodrome covers 24 Grade II* listed buildings at the largest and most complete surviving Royal Flying Corps WWI aerodrome in Britain. The agreement, between Maldon District Council, Historic England, and site owners, provides a framework for routine conservation and maintenance works without repeated listed building consent applications, ensuring long-term protection and efficient management of this nationally significant heritage site.	The implementation of Our Drought Plan is unlikely to directly affect these listed buildings; however, any operational actions impacting water-dependent landscapes or historic settings should consider LBHPA objectives. SEA should seek to ensure compliance with heritage protection measures, avoid adverse impacts on listed buildings and their setting, and align with conservation priorities outlined in the LBHPA.
Essex & Suffolk Water			
Northumbrian Water Restore and Regenerate: Our Environment Strategy to 2050 (2023)	Environment	This long-term strategy sets out NWG's environmental ambition to restore and regenerate nature across its operating regions. It is structured around five Environmental Priorities: water management for the environment and people, healthy catchments and coastal waters, effective climate action, valuing resources and eliminating waste, and thriving nature and communities.	Our Drought Plan could influence the strategy's delivery by altering water abstraction regimes, accelerating nature-based interventions, or triggering emergency operations that affect catchment health. SEA should assess how drought actions interact with long-term environmental priorities and support regenerative outcomes.
ESW WRMP 2024 (WRMP24) (2022)	Water	Sets out a 25-year strategy to secure water supplies in a water-stressed region. Focuses on reducing demand and increasing supply through smart metering, leakage reduction, and infrastructure development.	Our Drought Plan could influence the implementation of WRMP24 by, altering abstraction patterns, or intensifying demand management during dry periods. SEA should consider how drought actions interact with WRMP24's environmental goals and long-term water resource planning.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
ESW WRMP24 – Leakage Reduction Strategy (2022)	Water	Targets a 40% leakage reduction by 2050. Includes smart metering, satellite leak detection, and customer engagement.	Our Drought Plan could reinforce the urgency of leakage reduction as a drought action, potentially prioritising investment or operational changes. SEA should assess how drought-related actions support or challenge efficient water use and infrastructure resilience.
ESW Net Zero Carbon Pledge by 2027 (2021)	Climate factors	Commits to eliminating carbon emissions by 2027. Includes renewable energy sourcing and zero avoidable waste.	Our Drought Plan could impact carbon emissions through emergency operations, infrastructure deployment, or energy use. SEA should evaluate how drought responses align with net zero goals and promote climate mitigation.
ESW Pollution Incident Reduction Plan (2022)	Water	Updated in 2022, this plan outlines ESW's approach to reducing pollution incidents across its clean and wastewater networks. Aims to reduce pollution incidents from clean and wastewater assets. Includes root cause analysis and performance monitoring.	Our Drought Plan could influence pollution risks by altering flow regimes, increasing operational stress, or triggering emergency discharges. SEA should assess how drought actions interact with updated pollution prevention strategies and support environmental safeguarding in the region.

APPENDIX D ENVIRONMENTAL BASELINE

This appendix is available as a standalone document.

APPENDIX E DEFINITIONS OF RESIDUAL EFFECTS

SEA topic	Datasets/key themes	Effect		Scoring guide
Biodiversity, Flora, Fauna	Special Areas of Conservation Special Protection Areas Ramsar sites Sites of Special Scientific Interest National Nature Reserves Local Nature Reserves Marine Protected Areas Marine Conservation Zones Priority habitats and species Non-designated sites Terrestrial, aquatic and marine habitats, species and protected sites Green networks and corridors (e.g. foraging areas and commuting routes, migration routes, hibernation areas etc. at all scales) Local wildlife sites (where available)	+++	Major Beneficial	The action would result in a major enhancement on the quality of designated sites/habitats due to changes in flow or groundwater levels, water quality or habitat quality and availability. The action would result in a major increase in the population of a priority species. Effects could be caused by beneficial changes in water flows/water quality, or large amounts of enhancement of habitat, promoting a major increase in ecosystem structure and function. The action would result in a major reduction or management of Invasive Non-Native Species (INNS).
		++	Moderate Beneficial	The action would result in a moderate enhancement on the quality of designated and/or non-designated sites/habitats due to changes in flow or groundwater levels, water quality or habitat creation and enhancement measures. The action would result in a moderate increase in the population of a priority species. Effects could be caused by beneficial changes in water flows/water quality, or moderate amounts of creation or enhancement of habitat, promoting a moderate increase in ecosystem structure and function. The action would result in a moderate reduction or management of INNS.
		+	Minor Beneficial	The action would result in a minor enhancement of the quality of designated and/or non-designated sites/habitats due to changes in flow or groundwater levels, water quality or habitat creation and enhancement measures. The action would result in a minor increase in the population of a priority species. Effects could be caused by beneficial changes in water flows/water quality, or small amounts of creation or enhancement of habitat, promoting a minor increase in ecosystem structure and function. The action would result in a minor reduction or management of INNS.

SEA topic	Datasets/key themes	Effect		Scoring guide
		0	Neutral	The action would not result in any effects on designated or non-designated sites including habitats and/or species). It will not have an effect on INNS.
		-	Minor adverse	The action would result in a minor adverse effect on the quality of designated and/or non-designated sites/habitats due to changes in flow or groundwater levels, water quality or habitat loss or degradation. The action would result in a minor decrease in the population of a priority species. Effects could be caused by detrimental changes in flows/water quality, or small losses or degradation of habitat leading to a minor loss of ecosystem structure and function. The action would result in a minor increase or spread of INNS.
		--	Moderate adverse	The action would result in a moderate adverse effect on the quality of designated and/or non-designated sites/habitats due to changes in flow or groundwater levels, water quality or habitat loss or degradation. The action would result in a moderate decrease in the population of a priority species. Effects could be caused by detrimental changes in flows/water quality, or moderate loss or degradation of habitat leading to a moderate loss of ecosystem structure and function. The drought actions would result in a moderate increase or spread of INNS.
		---	Major adverse	The action would result in a major adverse effect on the quality of designated and/or non-designated sites/habitats due to changes in flow or groundwater levels, water quality or habitat loss or degradation. The action would result in a major decrease in the population of a priority species. Effects could be caused by detrimental changes in flows/water quality, or large losses or degradation of habitat leading to a major loss of ecosystem structure and function. The action would result in a major increase or spread of INNS.

SEA topic	Datasets/key themes	Effect		Scoring guide
		?	Uncertain	From the level of information available the effect that the action would have on this objective is uncertain.
Water	Environment Agency Flood Defences Environment Agency Main Rivers Flood Zones 2 and 3 Surface Water Features WFD River Water body Catchments WFD River Water bodies Cycle 2 Source Protection Zones WFD Groundwater bodies	+++	Major Beneficial	The action results in addressing failure of WFD Good Ecological Status/Good Ecological Potential. The action would result in a major improvement in water efficiency, reduces demand and improves resilience.
		++	Moderate Beneficial	The action achieves savings through demand management and does not require abstraction to achieve yield. The action contributes to addressing failure of WFD Good Ecological Status/Good Ecological Potential. The action would result in a moderate improvement in water efficiency, reduces demand and improves resilience.
		+	Minor Beneficial	The action achieves savings through demand management and does not require abstraction to achieve yield. The action would result in a minor improvement in water efficiency, reduces demand and improves resilience.
		0	Neutral	The action would have no discernible effect on river flows or surface/coastal water quality or on groundwater quality or levels. The action would not have an effect on or be affected by flood risk.
		-	Minor adverse	The action would result in minor decreases in river flows. River and/or coastal water quality may be affected and lead to short term or intermittent effects on receptors (e.g. designated habitats, protected species or recreational users of rivers and the coastline) that could not be avoided but could be mitigated. The action would result in minor decreases in groundwater quality or levels.

SEA topic	Datasets/key themes	Effect		Scoring guide
				The action would result in minor decreases in water efficiency, increases demand and reduces resilience.
		--	Moderate adverse	The action would result in moderate decreases in river flows. River and/or coastal water quality may be affected and lead to long term or continuous effects on receptors (e.g. designated habitats, protected species or recreational users of rivers and the coastline) that could not reasonably be mitigated. The action results in the likely deterioration of WFD classification. The action would result in moderate decreases in groundwater quality or levels. The action would result in moderate decreases in water efficiency, increases demand and reduces resilience.
		---	Major adverse	The action would result in major decreases in river flows. River and/or coastal water quality may be affected and lead to long term or continuous effects on receptors (e.g. designated habitats, protected species or recreational users of rivers and the coastline) that could not reasonably be mitigated. The action results in the deterioration of WFD classification. The action would result in major decreases in groundwater quality or levels. The action would result in major decreases in water efficiency, increases demand and reduces resilience.
		?	Uncertain	From the level of information available the effect that the action would have on this objective is uncertain.
Soil	Agricultural Land Classification Landfill sites – authorised and historic	+++	Major Beneficial	The action would result in a major enhancement on the quality of soils through the implementation of catchment approaches, remediation or other measures.
		++	Moderate Beneficial	The action would result in a moderate enhancement on the quality of soils through the implementation of catchment approaches, remediation or other measures.

SEA topic	Datasets/key themes	Effect		Scoring guide
	Mineral & Waste allocations (where available)	+	Minor Beneficial	The action is located on a brownfield site and has no effect on soils or existing land use. The action results in the remediation of contaminated land.
		0	Neutral	The action would not result in any effects on soils or land use.
		-	Minor adverse	The action is not located on a brownfield site and/or results in a minor loss of best and most versatile agricultural land or is in conflict with existing land use. The action results in land contamination.
		--	Moderate adverse	The action will result in a moderate loss of best and most versatile agricultural land or is in substantial conflict with existing land use. The action is partially overlying mineral resources leading to partial mineral sterilisation.
		---	Major adverse	The action will result in a major loss of best and most versatile agricultural land or is in substantial conflict with existing land use. The action results in land contamination. The action is directly overlying mineral resources leading to mineral sterilisation.
		?	Uncertain	From the level of information available the effect that the action would have on this objective is uncertain
Air Quality	Air Quality Management Zones Air quality monitoring sites	+++	Major Beneficial	The action would result in a major enhancement of the air quality within one or more AQMAs.
		++	Moderate Beneficial	The action would result in a moderate enhancement of the air quality within one or more AQMAs.
		+	Minor Beneficial	The action would result in an enhancement of the air quality.
		0	Neutral	The action would not result in any effects on air quality and AQMAs.

SEA topic	Datasets/key themes	Effect		Scoring guide
		-	Minor adverse	The action would result in a decrease of the air quality.
		--	Moderate adverse	The action would result in a decrease of the air quality within one or more AQMAs.
		---	Major adverse	The action would result in a major decrease in the air quality within one or more AQMAs.
		?	Uncertain	From the level of information available the effect that the action would have on this objective is uncertain.
Climatic factor	Carbon data UKCP18 climate data Sea level rise projections	+++	Major Beneficial	The action will generate additional zero carbon energy that can be fed back into the grid. The action will result in a major increase in carbon sequestration.
		++	Moderate Beneficial	The action will be carbon neutral The action will increase resilience/decrease vulnerability to climate change effects. The action will reduce operational carbon emissions by between 100 and 1,000 tonnes CO2e/year. The action will result in a moderate increase in carbon sequestration.
		+	Minor Beneficial	The action includes renewable energy sources that bring operational carbon to under 100 tonnes CO2e/year The action will increase resilience/decrease vulnerability to climate change effects. The action will reduce operational carbon emissions by up to 100 CO2e/year.
		0	Neutral	The action would have no discernible effect on greenhouse gas emissions, nor would the action increase resilience/decrease vulnerability to climate change effects.

SEA topic	Datasets/key themes	Effect		Scoring guide
		-	Minor adverse	The action will have a minor impact on resilience/decrease vulnerability to climate change effects. The action will generate operational carbon emissions of between 100 and 1,000 tonnes CO2e/year.
		--	Moderate adverse	The action will have a moderate impact on resilience/significantly decrease vulnerability to climate change effects. The action will generate operational carbon emissions of between 1,000 and 10,000 CO2e/year. The action will result in a moderate release of previously sequestered carbon.
		---	Major adverse	The action will have a major impact on resilience/significantly decrease vulnerability to climate change effects. The action will generate operational carbon emissions of more than 10,000 tonnes CO2e/year. The action will result in a major release of previously sequestered carbon.
		?	Uncertain	From the level of information available the effect that the action would have on this objective is uncertain.
Population and human health	Noise action important area Indices of Multiple Deprivation 2025[75] Functional site: ▪ Schools ▪ Medical facilities ▪ OS Greenspace dataset:	+++	Major Beneficial	The action leads to major beneficial effect on the health of local communities and will ensure that surface water and bathing water quality is maintained within statutory limits. The action creates new, and significantly enhances existing, recreational facilities, publicly accessible greenspace and/or tourism within the operational area.
		++	Moderate Beneficial	The action leads to beneficial effect on the health of local communities and will ensure that surface water and bathing water quality is maintained within statutory limits.

[75] Indices of Deprivation 2025 are scheduled for release between October and November 2025.

SEA topic	Datasets/key themes	Effect		Scoring guide
	▪ Allotments ▪ Bowling green ▪ Cemetery ▪ Golf course ▪ Sports facility ▪ Play space ▪ Playing field ▪ Public park or garden ▪ Religious grounds ▪ Tennis courts Natural England - Country Parks National Parks Section 15 open access areas CRoW S4 Conclusive Registered Common Land			The action enhances existing, recreational facilities, publicly accessible greenspace and/or tourism within the operational area
		+	Minor Beneficial	The action has a temporary beneficial effect on the health of local communities and will ensure that surface water and bathing water quality is maintained within statutory limits
		0	Neutral	The action would not result in any effects on human health and existing recreational facilities and/or tourism.
		-	Minor adverse	The action has a temporary effect on human health (e.g. noise or air quality). The action reduces the availability and quality of existing recreational facilities and/or tourism within the operational area.
		--	Moderate adverse	The action results in the permanent removal of existing recreational facilities, publicly accessible greenspace and/or tourism within the operational area.
		---	Major adverse	The action has a significant long-term effect on human health (e.g. noise or air quality). The action results in the removal of existing recreational facilities, publicly accessible greenspace and/or tourism within the operational area.
		?	Uncertain	From the level of information available the effect that the action would have on this objective is uncertain.
Historic environment	Listed buildings: ▪ Grade I listed structures ▪ Grade II* listed structures ▪ Grade II listed structures Registered Parks and Gardens: ▪ Grade I Registered Parks and Gardens ▪ Grade II* Registered Parks and Gardens	+++	Major Beneficial	The action will result in enhancements to designated heritage assets and/or their setting, fully realising the significance and value of the asset, such as: Securing repairs or improvements to heritage assets, especially those identified in the Historic England Buildings/Monuments at Risk Register. Improving interpretation and public access to important heritage assets
		++	Moderate Beneficial	The action will result in enhancements to designated heritage assets and/or their setting. Improving interpretation and public access to important heritage assets.

SEA topic	Datasets/key themes	Effect		Scoring guide
	▪ Grade II Registered Parks and Gardens Registered Battlefields Scheduled Monuments Conservation Areas World Heritage Sites	+	Minor Beneficial	The action will result in enhancements to non-designated heritage assets and/or their setting.
		0	Neutral	The action will have no effect on cultural heritage assets or archaeology.
		-	Minor adverse	The action will result in the loss of significance of undesignated heritage assets and/or their setting, notwithstanding remedial recording of any elements affected. There will be limited damage to known, undesignated archaeology important sites with a consequent loss of significance only partly mitigated by archaeological investigation.
		--	Moderate adverse	The action will result in the loss of significance of undesignated heritage assets and/or their setting, notwithstanding remedial recording of any elements affected. The action will diminish of significance of designated heritage assets and/or their setting, notwithstanding remedial recording of any elements affected.
		---	Major adverse	The action will diminish the significance of designated heritage assets and/or their setting such as: Loss of public access to important heritage assets and lack of appropriate interpretation. There will be major damage to known, designated archaeology important sites with a consequent loss of significance only partly mitigated by archaeological investigation.
		?	Uncertain	From the level of information available the effect that the action would have on this objective is uncertain.
Landscape	National Landscapes National Character Areas Green Belt land National Park	+++	Major Beneficial	The action would have a major beneficial contribution to designated landscape (National Landscape or National Park) management plan objectives The action results in new, above ground infrastructure that significantly enhances the local landscape, townscape or seascape.
		++	Moderate Beneficial	The action would have a moderate beneficial contribution to designated landscape management plan objectives.

SEA topic	Datasets/key themes	Effect		Scoring guide
				The action results in new, above ground infrastructure that has a moderate beneficial effect on the local landscape, townscape or seascape.
		+	Minor Beneficial	The action results in new, above ground infrastructure that has a minor beneficial effect on the local landscape, townscape or seascape.
		0	Neutral	The action would not result in any effects on the local landscape, townscape or seascape.
		-	Minor adverse	The action results in new, above ground infrastructure that has a minor adverse effect on the local landscape, townscape or seascape.
		--	Moderate adverse	The action would have a moderate adverse effect on a designated landscape or feature (i.e. significant visually intrusive infrastructure) whose effects could not be reasonably mitigated. The action results in new, above ground infrastructure that has a moderate adverse effect on the local landscape, townscape or seascape.
		---	Major adverse	The action would have an adverse effect on a designated landscape or feature (i.e. significant visually intrusive infrastructure) whose effects could not be reasonably mitigated. The action results in new, above ground infrastructure that has a major adverse effect on the local landscape, townscape or seascape.
		?	Uncertain	From the level of information available the effect that the action would have on this objective is uncertain.
Material assets	Transport: ▪ Major roads – A roads ▪ Major roads motorway ▪ Railway line ▪ National cycle route	+++	Major Beneficial	The action will re-use or recycle substantial quantities of waste materials and any new infrastructure will incorporate substantial sustainable design measures and materials. There will be no increase in energy consumption or energy will be from 100% renewable sources. The action improves national cycle routes or national trails.

SEA topic	Datasets/key themes	Effect		Scoring guide
	▪ National trails	++	Moderate Beneficial	The action will re-use or recycle moderate quantities of waste materials and any new infrastructure will incorporate some sustainable design measures and materials. There will be no increase in energy consumption or energy will be from 90% renewable sources. The action improves national cycle routes or national trails.
		+	Minor Beneficial	The action will re-use or recycle a limited quantity of waste materials and any new infrastructure will incorporate some limited sustainable design measures and materials. There will be no increase in energy consumption or energy will be from 80% renewable sources. The action improves national cycle routes or national trails.
		0	Neutral	The action would not result in any effects on material assets.
		-	Minor adverse	The action will require new infrastructure with only limited opportunities for the re-use or recycling of waste materials. There are limited opportunities for sustainable design or the use of sustainable materials. The action results in a minor increase in energy consumption with no renewable energy action. The action results in a minor disruption on built assets and infrastructure, including transport.
		--	Moderate adverse	The action will require new infrastructure with only limited opportunities for the re-use or recycling of waste materials. The action results in a moderate increase in energy consumption with no renewable energy action. The action results in a moderate disruption on built assets and infrastructure, including transport links.

SEA topic	Datasets/key themes	Effect		Scoring guide
		---	Major adverse	The action will require significant new infrastructure that cannot be provided through the re-use or recycling of waste materials. There are no opportunities for sustainable design or the use of sustainable materials. The action results in a major increase in energy consumption with no renewable energy action. The action results in a major distribution on built assets and infrastructure, including transport links.
		?	Uncertain	From the level of information available the effect that the action would have on this objective is uncertain.

APPENDIX F ASSESSMENT OF DROUGHT PLAN ACTIONS

This appendix is available as a standalone document