

NW Drought Plan 2027 Strategic Environmental Assessment (SEA): Environmental Report

July 2026

NW DROUGHT PLAN 2027

SEA: ENVIRONMENTAL REPORT

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NON-TECHNICAL SUMMARY

This section is a Non-Technical Summary (NTS) of the Environmental Report that presents the findings of the Strategic Environmental Assessment (SEA) of Northumbrian Water's (NW's) Drought Plan 2027. The NTS is a statutory requirement under the Strategic Environmental Assessment Regulations¹ (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 Northumbrian Water (NW) supply area.

The purpose of the NW 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 NW supply area. 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, an SEA has been undertaken for our Drought Plan. This NTS, alongside the main Environmental Report, 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 Bleak Ridge, Burnhope Reservoir, Derwent Reservoir, Fontburn Reservoir and Kielder Transfer drought actions Environmental Assessment Reports (EARs).

The SEA Process

Our SEA Scoping Report² was published for consultation on 15 October 2025. Statutory Consultees (Environment Agency, Natural England and Historic England) 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. The consultation closed on 18 November 2025 and the responses received through this consultation have been considered in preparation of our Environmental Report.

¹ 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 October 2025].

² Northumbrian Water (2025) SEA Scoping Consultation. Available at:

<https://www.nwq.co.uk/sea-scoping-assessment> [Accessed February 2026].

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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 (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 Bleak Ridge, Burnhope Reservoir, Derwent Reservoir, Fontburn and Kielder Transfer 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, key issues within the supply areas and catchments, and comments from consultees. 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 Report³, together with the justification as to why they were scoped out.

The Drought Plan SEA objectives and accompanying indicator 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 NW supply area, relevant operational catchments and the wider North East regional context where the use of broader-scale data is appropriate.

³ Northumbrian Water (2025) SEA Scoping Consultation. Available at: <https://www.nwq.co.uk/sea-scoping-assessment> [Accessed February 2026].

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Primary Assessment

We developed an appraisal framework which was used to assess how each individual, or groups of, 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. This includes monitoring measures that are already established as part of standard practice, so that the assessment reflects residual effects in line with current SEA guidance. The framework also identifies additional mitigation measures, which refer to drought action-specific measures identified through the SEA and supporting environmental assessments. These would be applied alongside embedded mitigation to avoid, reduce or manage potential environmental effects and inform the assessment of residual impacts. Effects were evaluated by considering their magnitude, sensitivity, 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 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	Significance uncertain

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.

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Our SEA included the following cumulative assessments:

- Simultaneous implementation of drought actions
- Interaction with other water company Drought Plans
- Interaction with WRMPs, including our WRMP24 and those prepared by other water companies
- Interaction with our Drainage and Wastewater Management Plan (DWMP) and other water companies' DWMPs
- Consideration of cumulative effects with other plans and projects, including the Water Resources North Regional Plan and River Basin Management Plans (RBMPs)
- Interaction with broader programmes and nationally significant infrastructure and Strategic Resource Option (SRO) schemes.

Limitations of the Assessment

SEA is a planning-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 (Table 5.4) for the relevant drought action.

Linked Environmental Assessments

HRA, WFD assessment and EARs have been undertaken to inform the development of our Drought Plan. EARs are detailed, action-specific assessments evaluating the environmental effects of individual drought actions and identify appropriate mitigation and monitoring measures. All of these assessments provide detailed understanding of the potential effects of our drought actions on designated 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 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 (BNG) 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:

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- Demand-side actions – actions to reduce demand (e.g. Temporary Use Bans (TUBs) and Non-Essential Use Bans (NEUBs))
- 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 to fall under our Emergency Plan and they 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, included in the DP 2027 is presented 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

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Drought level	Drought severity	Demand side actions
		Government led interventions⁴
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 15 m 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 - 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

⁴ 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.

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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 optimise planned outage
		Operation of the Kielder Transfer Scheme
Prolonged dry weather	Level 1	Road tankering from Whittle Dene WTW to service reservoirs to augment spring supplies at Allenheads and Carrshields WTW, if required.
Severe drought	Level 3b	Lowering of borehole pumps at Murton borehole, Thornton Mains borehole and Bleak Ridge borehole.

Table NTS 4 Supply side drought permit/order actions

Drought stage	Drought level	Supply side drought permit/order actions
Drought	Level 3a	Burnhope Reservoir compensation reduction
		Cease environmental spate releases and revert to baseflow compensation discharges at Derwent Reservoir
		Cease environmental spate releases and revert to baseflow compensation discharges at Fontburn Reservoir
Severe drought	Level 3b	Bleak Ridge borehole abstraction increase

SEA Scoping Stage Results

The scoping stage of the SEA process establishes the context and scope for the SEA and the Environmental 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 Environmental Report. Appendix B of the Environmental 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

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consultees, the list of relevant plans and programmes was revised and is included in the Environmental 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 refined following consultation with statutory consultees. The final objectives are presented in Table NTS 5.

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.
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.

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SEA topic	SEA objectives
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

The 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 the Alternatives

Drought Plans are operational tactical plans with a range of drought actions designed to be implemented to address specific conditions that arise 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 sequencing and combinations of actions 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 11 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 10 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.

Three supply-side drought actions involving the cessation of environmental space releases were further rejected after initially being included in the Drought Plan at the SEA Scoping stage as viable drought actions. Subsequent hydraulic assessment demonstrated that there is a negligible likelihood of these actions ever being triggered, and they were therefore excluded from the Drought Plan.

In addition, alternatives were compared as part of the environmental assessment for the proposed drought permit/order actions with a preferred action selected to take forward. These alternatives and assessments are presented in the EARs and summarised in the SEA, 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. The following section presents a summary of this assessment.

Demand-side drought actions assessment findings

Overall, demand-side actions reduce pressure on water resources by lowering consumption, leakage and operational losses. This supports maintenance of river flows, protection of flow-sensitive habitats and species, and improved resilience of natural systems during drought conditions. Effects across these actions are predominantly neutral, with no significant adverse effects identified.

Minor short-term adverse effects identified include:

- localised disturbance to soils, and temporary noise, traffic and associated air-quality impacts arising from leakage detection, repair activities and community engagement actions;
- minor greenhouse gas emissions associated with operational activities (e.g. vehicle movements);
- potential temporary inconvenience or reduced service levels for some customers (e.g. pressure reduction, communications, or operational measures such as flushing cessation); or,
- minor risks to water quality or customer experience associated with temporary operational changes (e.g. stopping proactive flushing).

These adverse effects are temporary, localised and reversible.

Demand-side actions deliver a range of minor to moderate beneficial effects, including:

- reduced abstraction leading to improved flows;
- water quality resilience and protection of habitats in line with WFD and RBMP objectives;
- increased efficiency of water use and reduced treatment and energy demand;
- improved protection and longevity of existing infrastructure; enhanced supply resilience and reliability during drought; or,
- promotion of long-term behavioural change through communication, education and water-saving interventions.

Government-led interventions are assessed resulting in the greatest number of moderate beneficial (significant) effects across all SEA objectives. Most demand-side actions also assessed as resulting in moderate beneficial (significant) effects in relation to local community health and wellbeing, although some measures, particularly those involving restrictions on water use, may have short-term adverse effects on customers.

Supply-side drought actions assessment findings

Overall, supply-side actions are not anticipated to result in significant adverse effects on river flows, water quality, biodiversity or WFD objectives. These actions operate largely within existing infrastructure and focus on redistributing abstraction, supplementing flows or optimising system operation during drought. The Kielder Transfer and groundwater source optimisation actions also operate within existing licensing constraints. As a result, effects are generally neutral to minor beneficial, with no significant adverse effects identified.

Minor adverse effects associated with supply-side actions are typically limited to:

- localised air emissions (e.g. from tankering or operational vehicle movements);
- temporary soil disturbance or spill risks;
- short-term, localised changes to flows or water quality during operational adjustments;
- minor increases in energy use and operational carbon emissions in some cases; or,
- small temporary visual or traffic effects, particularly for actions involving tankering or movement of resources.

These effects are short-term, localised and reversible, and are managed through embedded mitigation, including best-practice operational controls, environmental monitoring and regulatory compliance.

Supply-side actions provide minor beneficial effects, including:

- maintenance of environmental flows and support of aquatic habitats during drought;
- compliance with WFD and RBMP objectives;
- improved drought resilience and operational flexibility of the supply system;
- maintenance of reliable public water supply and protection of population health; or,
- improved resource efficiency through optimisation of existing infrastructure.

While most benefits are assessed as minor beneficial, the moderate beneficial (significant) effects identified for certain actions reflect their contribution to maintaining secure and resilient water supplies and supporting community wellbeing. Overall, supply-side actions deliver a beneficial contribution to drought resilience and environmental protection, with minor adverse effects that are temporary, controlled and not significant.

Findings from Linked Environmental Assessments

Habitats Regulations Assessment

The Drought Plan has been reviewed alongside key environmental assessments to ensure it does not harm protected sites or the wider water environment. Under the Habitats Regulations, all proposed actions were checked to see if they could affect internationally important wildlife sites. Actions focused on managing demand were screened out because they cannot physically impact these sites⁵. Most supply-side actions were also ruled out early as they operate within existing permissions or have no connection to sensitive environments.

Only one action (Fontburn at drought Level 3a) showed a possible link, but the expected effects were very small, short-term, and within normal natural variation. Overall, it was concluded that the plan would not have any significant impacts on protected sites, so no further detailed assessment was needed, and it has been concluded that the plan meets regulatory requirements.

The results of this HRA are presented in a standalone report (reference) as well as being summarised in the main report of our Drought Plan 2027.

Water Framework Directive Assessment

A similar approach was taken for the WFD assessment, which looks at the health of rivers, lakes, and groundwater. An initial screening identified several actions that would have little to no effect on water bodies, particularly those involving temporary changes such as stopping environmental spate flows during drought. These were considered low risk because essential environmental protections remain in place in the form of licensed compensation flows. Three actions (Bleak Ridge, Burnhope Reservoir and Kielder Transfer) were taken forward for more detailed review due to their potential to affect WFD water bodies.

Further WFD assessment showed that these actions would only result in very small or negligible changes to water quality, flow, and ecology, and would not prevent rivers or groundwater from meeting their environmental objectives. In some cases, natural processes such as groundwater recharge mean that any minor effects would recover within a short period. Where there was any uncertainty, controls such as environmental monitoring, thresholds, and time limits on operation have been included to minimise risks.

Overall, the assessments confirm that the drought actions can be implemented without causing deterioration in water body status or harming the environment. The plan is therefore considered compliant with environmental regulations, provided that the proposed safeguards and monitoring measures are followed.

⁵ Northumbrian Water (NW) (2026). NW Drought Plan 2027 Habitats Regulations Assessment Screening Report. WN025_0000-JAC-ZZ-ZZ_000-DOC-TE-0001

The results of the three WFD assessments for Bleak Ridge, Burnhope Reservoir and the Kielder Transfer are presented in individual standalone reports^{6, 7 & 8} as well as being summarised in the main Drought Plan 27 report.

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, and no significant cumulative effects are identified. Some effects, particularly on customers (e.g. arising from restrictions), are assessed as minor adverse, but are short-term, reversible, and managed through phased implementation and embedded mitigation measures.

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 companies' WRMPs
- DWMPs
 - Our DWMP
 - Other water companies' DWMPs
- Other plans and projects

⁶ Northumbrian Water (NW) (2026) NW Drought Plan 2027 Water Framework Directive (WFD) Report - Bleak Ridge Drought Action.

⁷ Northumbrian Water (NW) (2026) NW Draft Drought Plan 2027 Water Framework Directive (WFD) Report – Burnhope Reservoir Drought Plan.

⁸ Northumbrian Water (NW) (2026) NW Draft Drought Plan 2027 Water Framework Directive (WFD) Report - Kielder Transfer Drought Action.

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- Water Resource North Regional Plan
- RBMPs: Northumbria River Basin District (RBD) and Solway Tweed RBD
- Nationally Significant Infrastructure Projects (NSIPs)
- SROs.

In line with the Habitats Regulations, we assessed the potential cumulative effects of our drought actions, including their simultaneous use within and across catchments, as well as interactions with other abstractions and possible indirect water quality changes. Only the Fontburn Reservoir drought action presented a potential pathway, but it was found unlikely to have a significant effect on any protected features. As no individual or combined likely significant effects were identified, we concluded that there are no in-combination impacts from the Drought Plan.

Our cumulative WFD assessment, based on detailed reviews of the Bleak Ridge, Burnhope Reservoir and Kielder Transfer drought action EARs, found no significant adverse effects on WFD objectives. For the Kielder Transfer, the combined effects on flow have been considered and remain small, staying within normal operating conditions and therefore limiting cumulative impacts. For Burnhope Reservoir, effects are localised and short-term, with operational controls preventing wider impacts, and groundwater is not significantly affected. For Bleak Ridge, potential risks to groundwater are limited to the local system and are effectively managed through existing licence controls, monitoring, and adaptive management. Overall, no wider cumulative effects were identified.

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 (United Utilities, Hartlepool Water (Anglian Water) and Yorkshire Water) have been reviewed to identify the potential cumulative impacts with our Drought Plan.

The assessment concluded that none of the drought measures proposed by the three water companies interact with those included in our Drought Plan. Therefore, it is unlikely there will be any pathways for cumulative effects with our Drought Plan. It should also be noted that neighbouring companies' 2027 Drought Plans are being prepared in parallel; this cumulative assessment will be updated when all of their final Drought Plans become available.

Water Resource Management Plans

The review of our WRMP24 found no adverse cumulative effects with the Drought Plan actions. WRMP24 includes a single supply-side option (Supplying Teesside

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Industrial Water), this involves reinstating the Blackwell abstraction licence to pre-2016 levels (58,075 Ml/year; 159 Ml/d), installing eel regulation-compliant screens at the Low Worsall intake, and increasing the Low Worsall abstraction licence to 170 Ml/d (62,000 Ml/year).

This option is linked to existing operations within the Kielder WRZ, which serves the Teesside industrial area. Under the Drought Plan, the Teesside industrial supply is part of the baseline system and continues in the same way regardless of drought conditions. As this activity is not triggered as a drought action, it does not interact cumulatively with drought measures. Therefore, no adverse cumulative effects between WRMP24 and the Drought Plan are anticipated.

There is however potential for beneficial cumulative effect in relation to demand management, as drought actions such as water efficiency and leakage reduction complement WRMP24 initiatives and contribute to national targets.

Our review of neighbouring water companies' WRMPs found no potential for cumulative effects, as their proposed options do not interact, or overlap geographically or temporally, with the areas considered within our Drought Plan.

Drainage and Wastewater Management Plans

Our DWMP focuses on wastewater management across seven planning areas and identifies the investments needed to maintain compliance with environmental permits. Our Drought Plan does not involve changes that would affect wastewater generation, sewer capacity, or drainage systems, so there is no interaction between the two plans. While drought conditions may reduce dilution of treated effluent in receiving waters, Drought Plan actions are managed within environmental and regulatory controls. As a result, no cumulative effects are expected.

The same conclusion applies to neighbouring water companies' DWMPs. Our drought actions are not located near wastewater infrastructure interventions, meaning there is no geographic or functional overlap. Therefore, cumulative effects between these plans are considered unlikely.

Other Plans and Projects

We reviewed the potential for cumulative effects between our Drought Plan and other relevant plans and projects, including the Water Resources North Regional Plan, NSIPs, and SROs.

The WReN Regional Plan (2025)⁹ promotes a coordinated approach to water resources across the North East, with a strong focus on reducing demand through measures such as leakage reduction, smart metering and improved water efficiency.

⁹ Water Resource North (2022). Water Resource North Draft Regional Plan for consultation. Available at: [wren-drp-2022---draft-regional-plan-for-consultation---main-report.pdf](https://www.wren-drp-2022---draft-regional-plan-for-consultation---main-report.pdf). [Accessed May 2026]

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These measures align with our Drought Plan and are expected to result in beneficial cumulative effects, reducing pressure on water resources and the environment. A proposed long-term transfer from Kielder to South Yorkshire has also been identified; however, this is not expected to be implemented until around 2040 and therefore does not overlap with our Drought Plan. As a result, no significant adverse cumulative effects are anticipated.

The RBMPs for both the Northumbria¹⁰ and Solway Tweed¹¹ river basins aim to improve water quality and ecological status. Their objectives are consistent with our Drought Plan, and when considered together, are expected to deliver beneficial effects, supporting the protection and enhancement of water-dependent habitats.

A review of National Significant Infrastructure Projects (NSIPs) identified 15 projects within the SEA study area (from a total of 71 reviewed). An additional review of NSIPs in the Yorkshire and Humber area confirmed that none are located in close proximity to the SEA study area boundary, and therefore no cumulative effects are anticipated from this region.

Of the 15 projects, 13 were screened out of detailed assessment as they are primarily transport and energy developments with limited operational water demand and only temporary construction use; therefore, no cumulative effects are anticipated. Three projects (H2NorthEast, Lighthouse Green Fuels and Net Zero Teesside) were identified for more detailed review due to their potential reliance on water supply infrastructure.

For Net Zero Teesside, available evidence confirms that demand can be accommodated within existing capacity, and no cumulative effects are expected. For H2NorthEast and Lighthouse Green Fuels, which are at early development stages, insufficient information is available to quantify demand; therefore, the potential for cumulative effects cannot yet be determined with confidence. While these projects may increase water demand, the scale and significance of any effects remain uncertain at this stage. Overall, existing capacity is expected to be sufficient, but these projects will be kept under review as more detailed information becomes available through the planning process.

Finally, we considered SROs proposed by neighbouring water companies. Most are located outside our area and do not interact with our Drought Plan. Yorkshire Water is developing a long-term Kielder-supported transfer scheme, but this is at an early stage and planned for delivery beyond the Drought Plan period. While there is some

¹⁰Environment Agency (2022). River basin management plan for the Northumbria River Basin District, Habitats Regulations Assessment. Available at: [River basin management plan for the Northumbria River Basin District HRA](#) [Accessed May 2026].

¹¹Environment Agency, Scottish Environment Protection Agency (2021). River Basin Management Plan for the Solway Tweed River Basin District: Habitats Regulations Assessment (2021–2027). Available at: https://www.sepa.org.uk/media/37531/rbmp_solwaytweed_habitats-regulations-assessment.pdf [Accessed May 2026]

potential for future interaction, effects are uncertain and not expected to be significant at this stage.

Overall, no significant adverse cumulative effects have been identified. In several cases, particularly for demand management and environmental improvement measures, beneficial cumulative effects are anticipated, supporting long-term resilience and environmental protection.

Mitigation Measures and Monitoring

Mitigation Measures

Mitigation has been a fundamental part of how we have developed and assessed our Drought Plan. Our SEA has been based on understanding the residual effects, meaning the impacts that may remain after all mitigation measures, both embedded (standard practice) and additional, are applied. We have assumed that all actions operate in line with existing regulatory controls, including abstraction licences, which already include environmental safeguards such as flow constraints and operating conditions set by the Environment Agency. These embedded measures, alongside industry best practice and UKWIR guidance¹², form the baseline level of protection across all drought actions.

In addition to the embedded controls, we have identified a wide range of additional mitigation measures through the SEA and supporting environmental assessments^{13, 14, 15, 16 & 17}. These measures emphasise a precautionary and adaptive approach, including close coordination with regulators, targeted environmental monitoring, and the ability to modify or cease actions if environmental thresholds are exceeded. Key measures include stakeholder consultation (such as with other abstractors and affected communities), clear customer communication, water quality safeguards (including treatment and monitoring), and targeted protection for sensitive receptors such as ecological habitats, heritage assets, and vulnerable customer groups. Monitoring is central to this approach, allowing us to track environmental conditions

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].

¹³ Northumbrian Water (2026). Bleak Ridge Drought Action Environmental Assessment Report (EAR). [Unpublished]. Available on request.

¹⁴ Northumbrian Water (2026). Burnhope Reservoir Drought Action Environmental Assessment Report (EAR). [Unpublished]. Available on request.

¹⁵ Northumbrian Water (2026). Derwent Reservoir Drought Action Environmental Assessment Report (EAR). [Unpublished]. Available on request.

¹⁶ Northumbrian Water (2026). Kielder Transfer Drought Operation Environmental Assessment Report (EAR). [Unpublished]. Available on request.

¹⁷ Northumbrian Water (2026). Fontburn Transfer Drought Operation Environmental Assessment Report (EAR). [Unpublished]. Available on request.

in real time and respond quickly if needed. Post-drought monitoring is also included to confirm recovery and capture lessons learned.

Demand-side drought actions

For demand-side drought actions, mitigation is largely built into the way these actions are designed and implemented. TUBs and, where necessary, NEUBs, are applied in line with established codes of practice and are implemented proportionately, balancing water savings against potential impacts on customers. Evidence from previous drought events shows these measures are effective, with notable reductions in both overall supply and household demand¹⁸. We plan to introduce such measures early where required, supported by strong communication campaigns to encourage behavioural change. Additional tools, such as smart metering, leakage reduction programmes, and customer engagement initiatives (e.g. water-saving calculators and usage alerts), enhance effectiveness and ensure that demand reductions are achieved in a fair and transparent way.

Supply-side drought actions

For supply-side drought actions, mitigation measures are proportionate, targeted and informed by the EARs. Across all actions, impacts are generally predicted to be minor, short-term, and reversible, but targeted mitigation is applied where needed. A key principle is adaptive management, where operations are adjusted in response to monitoring data and environmental conditions. Measures include timing restrictions to avoid sensitive ecological periods, maintaining minimum flows, short-term controlled releases to support water quality and fish migration, and early withdrawal triggers if thresholds are exceeded.

Some actions, such as Burnhope Reservoir, include a comprehensive mitigation framework covering measures to protect water quality and fisheries (e.g. controlled freshets, aeration), avoid sensitive ecological periods, and, where necessary, fish rescue and relocation. Early withdrawal triggers linked to ecological thresholds provide robust safeguards. For Bleak Ridge, mitigation is more focused, reflecting fewer impact pathways, but still includes monitoring and staged abstraction reductions if needed. For Derwent Reservoir, mitigation focuses on adaptive flow management, including targeted short-duration releases (distinct from full spate flows), aeration where required, and responsive measures such as early withdrawal if trigger threshold are exceeded. Fontburn Reservoir mitigation focuses on maintaining water quality and ecological connectivity through controlled releases, aeration and responsive management of ecological conditions. The Kielder Transfer requires minimal intervention due to its low predicted impact but still includes monitoring and adaptive controls to ensure compliance. Across all supply-side

¹⁸ UKWIR (2023) Review of the 2022 Drought demand management measures, Summary Report. Available at: <https://ukwir.org/review-of-2022-drought-demand-management-measures-summary-report> [Accessed March 2026]

actions, mitigation is structured across pre-drought preparation, in-drought management, and post-drought recovery, ensuring a full lifecycle approach.

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 drought actions that would only be implemented if, and when, required, depending on drought conditions over the five-year lifetime of the Drought 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 significant adverse (moderate or greater) effects have been identified in this SEA and in the associated HRA, WFD and EARs, prior to the application of additional mitigation measures, to ensure that the effectiveness of these measures can be tracked.

Demand-side drought actions

Monitoring of demand-side drought 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 and repair, meter data analysis, restriction compliance (TUBs/NEUBs), including monitoring impacts of removing exemptions on previously excluded or vulnerable groups and water usage tracking.

Supply-side drought actions

Monitoring for supply-side actions is more extensive than for demand-side actions and is closely linked to environmental conditions and drought triggers. Monitoring would be undertaken at three levels. First, drought condition monitoring focuses on tracking indicators such as groundwater levels, reservoir storage, river flows, rainfall and soil moisture deficits, to identify when drought actions are required and how drought conditions are progressing. Second, drought action (environmental) monitoring assesses the impacts of specific measures, with monitoring undertaken before, during and after implementation to establish baseline conditions, detect changes, trigger mitigation if needed, and confirm recovery of environmental receptors such as hydrology, water quality, and ecology. Third, action-specific and adaptive monitoring tailors monitoring requirements to individual actions (e.g. Burnhope, Bleak Ridge, Kielder Transfer), combining automated systems and manual surveys, with results reviewed by the Drought Management Group and regulators to enable timely intervention and ensure compliance and continuous improvement.

Key indicators for supply-side drought actions include groundwater levels, reservoir storage, river flows, rainfall, and soil moisture deficits. These indicators not only inform when drought actions are required but also help identify potential

environmental impacts at an early stage. Monitoring is undertaken using a combination of automated systems (e.g. telemetry and continuous sensors) and manual surveys, ensuring both high-frequency data collection and detailed field observations.

Specific monitoring programmes have been developed as part of the EAR process. This means we have monitoring programmes for Bleak Ridge, Burnhope Reservoir, Derwent Reservoir, Fontburn Reservoir, and the Kielder Transfer. These programmes set out monitoring requirements before, during, and after drought action implementation. They cover a range of receptors, including groundwater, hydrology, water quality, fisheries, invertebrates, macrophytes and Phytobenthos. Monitoring is used to:

- Establish baseline conditions prior to implementation
- Detect and quantify any changes during drought action implementation
- Trigger mitigation measures or early withdrawal if thresholds are exceeded
- Confirm recovery to baseline conditions following cessation of the drought action.

Monitoring approaches are tailored to each drought action. For example: Burnhope Reservoir adopts a focused and streamlined approach, targeting receptors where impact magnitude or uncertainty is greatest (e.g. groundwater levels and quality), supported by existing regulatory datasets and baseline walkovers. For Bleak Ridge, monitoring focuses on groundwater levels and quality, reflecting the nature of potential impacts. For Derwent and Fontburn Reservoir, monitoring is proportionate and focused on verifying predicted minor effects. For the Kielder Transfer, monitoring confirms that operational changes remain within expected limits and do not affect ecological status. The monitoring measures set out in the EAR monitoring programmes have been incorporated into the overall SEA monitoring plan, which is presented in Chapter 8 of the SEA Environmental Report.

All monitoring data are regularly reviewed and reported to the Drought Management Group (DMG)¹⁹ and regulators, ensuring transparency and accountability. Where thresholds are exceeded or unexpected impacts are identified, immediate action can be taken, including modification or cessation of drought actions. Post-drought monitoring is also undertaken to confirm environmental recovery and to inform future planning.

Overall, this integrated approach to monitoring supports adaptive management, regulatory compliance, and continuous improvement, ensuring that the Drought Plan can be implemented effectively while protecting the environment.

¹⁹ The Drought Management Group (DMG) is NWG's internal governance group responsible for overseeing drought management, including reviewing monitoring data, coordinating responses, and making decisions on the implementation, modification, or cessation of drought actions.

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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 21 May 2026 to 13 August 2026. Feedback can be provided using this link <https://www.nwg.co.uk/responsibility/environment/drought-plan/our-new-draft-drought-plans-2027/>. 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 the SEA Statement (Post-Adoption Statement) and our Statement of Response, which will document how consultation comments have been considered.

1 INTRODUCTION

1.1 Background to the Drought Plan 2027

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

The NW 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)²⁰, 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 NW 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 Report²¹, which summarised the environmental baseline and framework that would be used for this assessment, was issued for consultation. 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.

²⁰ Northumbrian Water (2024). Water Resources Management Plan 2024. Available at: [nw-wrmp24-main-report---draft-final_clean_uploaded-to-defra-sp.pdf](#). [Accessed April 2026].

²¹ 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')²² and 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.

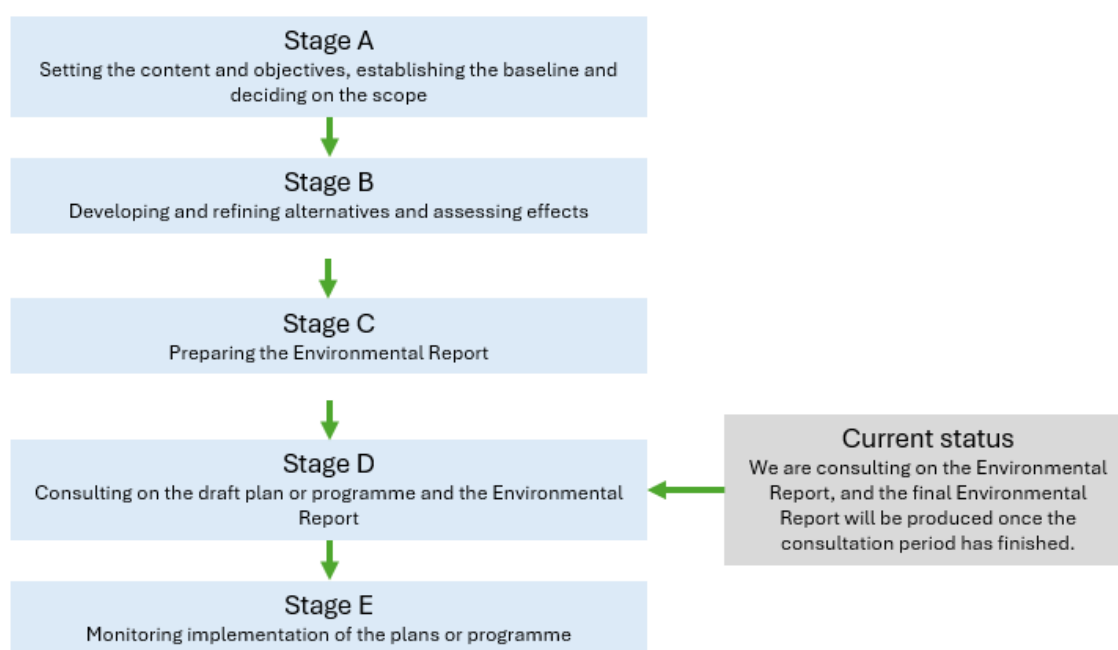


Figure 1.1 Stages in the SEA process²³

²² 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 October 2025].

²³ 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 Jul 2025].

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The SEA Regulations require 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) guidance²⁴ 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 Section 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)²⁵, 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 SEA²⁶, which supports consistency with established international approaches.

The Environment Agency, Ofwat and Natural Resources Wales' Water Resources Planning Guideline, updated in 2023²⁷, and environmental assessment for water company drought planning supplementary guidance (2025)²⁸, alongside the water

²⁴ 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].

²⁵ UK Water Industry Research (UKWIR) (2021) *Environmental Assessments for Water Resources Planning*. Available at: <https://ukwir.org> [Accessed January 2026].

²⁶ *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].

²⁷ 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].

²⁸ 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].

company drought plan guideline²⁹, set 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 published between 2025³⁰ and 2026³¹, 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 making³² 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), under the Ministry of Housing, Communities and Local Government³³, 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

²⁹ Defra (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 June 2026].

³⁰ 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].

³¹ Historic England (2026) *Latest Advice and Guidance*. Available at: <https://historicengland.org.uk/advice/find/latest-guidance/> [Accessed January 2026].

³² 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].

³³ Ministry of Housing, Communities and Local Government (2005) *Strategic Environmental Assessment Directive: guidance*. Available at: <https://www.gov.uk/government/publications/strategic-environmental-assessment-directive-guidance> [Accessed January 2026].

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.

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 and 6 and Section 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	Chapter 6, Section 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

SEA Regulations Environmental Report Requirements	Where the Requirement Is met in the Environmental Report
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, Section 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 The Purpose of the 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 consultation bodies 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 the close of the consultation period, all responses will be reviewed and considered, and the SEA Environmental Report will be updated where appropriate to reflect these comments and any proposed changes to the Drought Plan. A revised version of the SEA Environmental Report will then be issued for the next stage of the Drought Plan process, alongside the SEA Statement (Post-Adoption Statement) and the Statement of Response, which will document how consultation comments have been taken into account.

1.4.2 Consultation on the Scoping Report

In accordance with SEA Regulation 12(5) 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.

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’.

Section 2.2 explains the process of how consultation on the Environmental Report feeds into the Final Drought Plan 2027. Chapter 9 provides further details regarding the consultation process and the next steps.

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 2003³⁴, and in accordance with the Drought Plan Regulations 2005³⁵. 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 2025³⁶. 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)³⁷.

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

³⁴ UK Government. (2003) Communications Act 2003. Available at:

<https://www.legislation.gov.uk/ukpga/2003/21/contents> [Accessed February 2026].

³⁵ 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].

³⁶ 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]

³⁷ 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 Plan focuses on short-term operational measures that may be implemented to address temporary shortages of water resources during drought events.

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 continue 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-side 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.

The “do nothing” and “do minimum” actions have been excluded, as there is a statutory requirement for us to maintain water supply. As such, they are not considered reasonable alternatives in scenarios where reductions in water supply are likely.

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 (m³/yr), or percentage reduction
- **Supply volume potential:** Estimated water supply, expressed in appropriate units such as ML/d or m³/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, with decisions documented in the Drought Plan rejection register. 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:** Adverse effects on internationally and nationally designated sites and protected species. Examples include flow-sensitive sites such as Teesmouth and Cleveland Coast SPA/Ramsar and North Pennine Moors SAC/SPA.
- **Implementation too slow or not timely for drought response:** Examples include smart meter replacements, compulsory metering, opt-in metering, water reuse/rainwater harvesting, tariffs, 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.

Three supply-side drought actions involving the temporary cessation of environmental spate releases at Grassholme Reservoir, Hury Reservoir and Waskerley Reservoir were initially included in the Drought Plan at the SEA Scoping stage as viable drought actions. However, these actions have since been rejected following further hydraulic assessment, which demonstrated that there is a negligible likelihood they would ever be triggered. Across the full historical record available for these reservoirs (1901 –2016), emergency storage levels, identified as the trigger for

these actions, have never been reached. The lowest recorded storage levels were 82.4% at Grassholme, 41.4% at Hury and 53.1% at Waskerley, all of which remain well above the corresponding trigger thresholds of 27.1%, 20.0% and 26.0%. As a result, these actions do not meet the criteria for inclusion, even under extreme (Level 3b) drought conditions.

A further supply-side drought action involving the temporary cessation of environmental spate releases at the Burnhope Burn Catchwater has also been rejected following additional hydraulic assessment, which confirmed that it would provide no public water supply benefit. During the most recent drought in 2025, Burnhope Burn consistently delivered baseline compensation flows, while the catchwater delivered 0 MI/d to Derwent Reservoir between May and September. Consequently, ceasing spate flows and reverting to baseline compensation flows would have no demonstrable effect on inflows to Derwent Reservoir available for abstraction for public water supply, as evidenced by observed performance during the 2025 event.

2.6.1 Demand-side drought 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, which extend restrictions to specified commercial and non-household activities.

Demand-side drought 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 drought level.

Table 2.1 Demand-side drought actions

Drought level	Drought severity	Demand-side drought actions	Average saving per drought level in megalitres per day (MI/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	Please see WRMP24

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Drought level	Drought severity	Demand-side drought actions	Average saving per drought level in megalitres per day (MI/d)
		- Water efficiency activity (non-household and household) - Smart metering installations - Government led interventions³⁸	
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	1.22
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	2.19
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 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	3.04

³⁸ 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.

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Drought level	Drought severity	Demand-side drought actions	Average saving per drought level in megalitres per day (ML/d)
		- 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.	0.34

2.6.2 Supply-side drought actions

Supply-side drought 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 drought order are listed in Table 2.2. Actions that do require drought permit or drought order are summarised in Table 2.3 and are mapped to drought severity levels. Definitions of drought severity levels are provided in Section 2.3.

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.

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Table 2.2 Supply-side drought actions

Level	Drought measure	Water Resource Zone (WRZ)	Description
0	Raw water and WTWs optimisation	All	Operations are reconfigured to prioritise water from non-stressed sources by optimising treatment works supply, adjusting distribution system valving, and deploying network support units to transfer water from alternative treatment works and relieve pressure on stressed sources.
	Coordination planning to optimise planned outage	All	Defer planned maintenance during drought or bring forward works early if they improve water resource availability.
	Operation of the Kielder Transfer Scheme	Kielder	Reduce abstraction from more environmentally sensitive sources and make greater use of Kielder Reservoir, in conjunction with the Tyne-Tees Transfer (TTT), to maintain flows and support abstractions on the Rivers Tyne, Wear and Tees, utilising existing assets and abstraction licences within their current operational conditions.
1	Tankering of water	Kielder	Road tankering from Whittle Dene WTW to service reservoirs to augment spring supplies at Allenheads and Carrshields WTW, if required.
3b	Groundwater source optimisation	Berwick & Fowberry	Lower borehole pumps at Murton borehole, Thornton Mains borehole and Bleak Ridge borehole.

Table 2.3 Supply side drought permit/order actions

Level	Drought name	WRZ	Description
3a	Burnhope Reservoir compensation reduction	Kielder	Reduce compensation discharge from Burnhope Reservoir, while concurrently increasing releases from the TTT at Frosterley, by the same volume, to maintain River Wear flows downstream.
	Derwent spate release suspension		Temporarily cease environmental spate releases and revert to baseflow compensation discharges at Derwent Reservoir.

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Level	Drought name	WRZ	Description
	Fontburn spate release suspension		Temporarily cease environmental spate releases and revert to baseflow compensation discharges at Fontburn Reservoir.
3b	Bleak Ridge abstraction increase	Berwick & Fowberry	Increase daily and annual abstraction volumes at Bleak Ridge borehole.

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 2004³⁹, 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 Section 3.2. A summary of messages is presented in Section 3.3 with full review presented in Appendix C.

3.2 Policies, Plans and Programmes Reviewed

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 to 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 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 level. 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.

³⁹ UK Government (2004). *The Environmental Assessment of Plans and Programmes Regulations 2004*. SI 2004/1633. Available at: <https://www.legislation.gov.uk/uksi/2004/1633/contents/made> [Accessed June 2026].

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)⁴⁰, which advocates for a more resilient and connected ecological network across England; and,
- Supporting Defra's (2025) Environmental Improvement Plan⁴¹, 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 the 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

⁴⁰ 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 Sept 2025].

⁴¹ Defra (2025) Environmental Improvement Plan. Available at: <https://www.gov.uk/government/publications/environmental-improvement-plan> [Accessed June 2026].

- Increase resource efficiency and reduce natural resource use and waste, applying circular economy principles
- Create a green economy and promote sustainable growth
- 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 1 of the SEA Directive (Directive 2001/42/EC), as transposed into UK law through the Environmental Assessment of Plans and Programmes Regulations 2004⁴², requires the 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 the 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, which has been updated following feedback from the Scoping consultation, and has been further developed through a desk-based study undertaken between December 2025 and April 2026. In relation to the temporal scope, the assessment covers the 5-year plan between 2027 and 2032. Our Drought Plan SEA study area shown in Figure 4.1 broadly follows our NW supply area boundary. However, in some locations the study area extends beyond this boundary to include the full extent of operational catchments that largely lie within the supply area but are partially outside it. This ensures that all potential pathways are considered within the assessment. These operational catchments include:

- North Tyne Upper
- Seaham Peterlee Coast
- South Tyne Upper
- Tees Lower and Estuary
- Tees Middle
- Tees Upper.

A wider North East regional boundary has also been used to provide context where environmental data is only available at a broader spatial scale or where a larger-scale dataset is more appropriate. In addition, some baseline data are presented at the NW

⁴² UK Government (2004). *The Environmental Assessment of Plans and Programmes Regulations 2004*. SI 2004/1633. Available at: <https://www.legislation.gov.uk/uksi/2004/1633/contents/made> [Accessed June 2026].

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supply area and WRZ level. The two WRZs, Berwick & Fowberry and Kielder, within our supply area are shown in Figure 4.1.

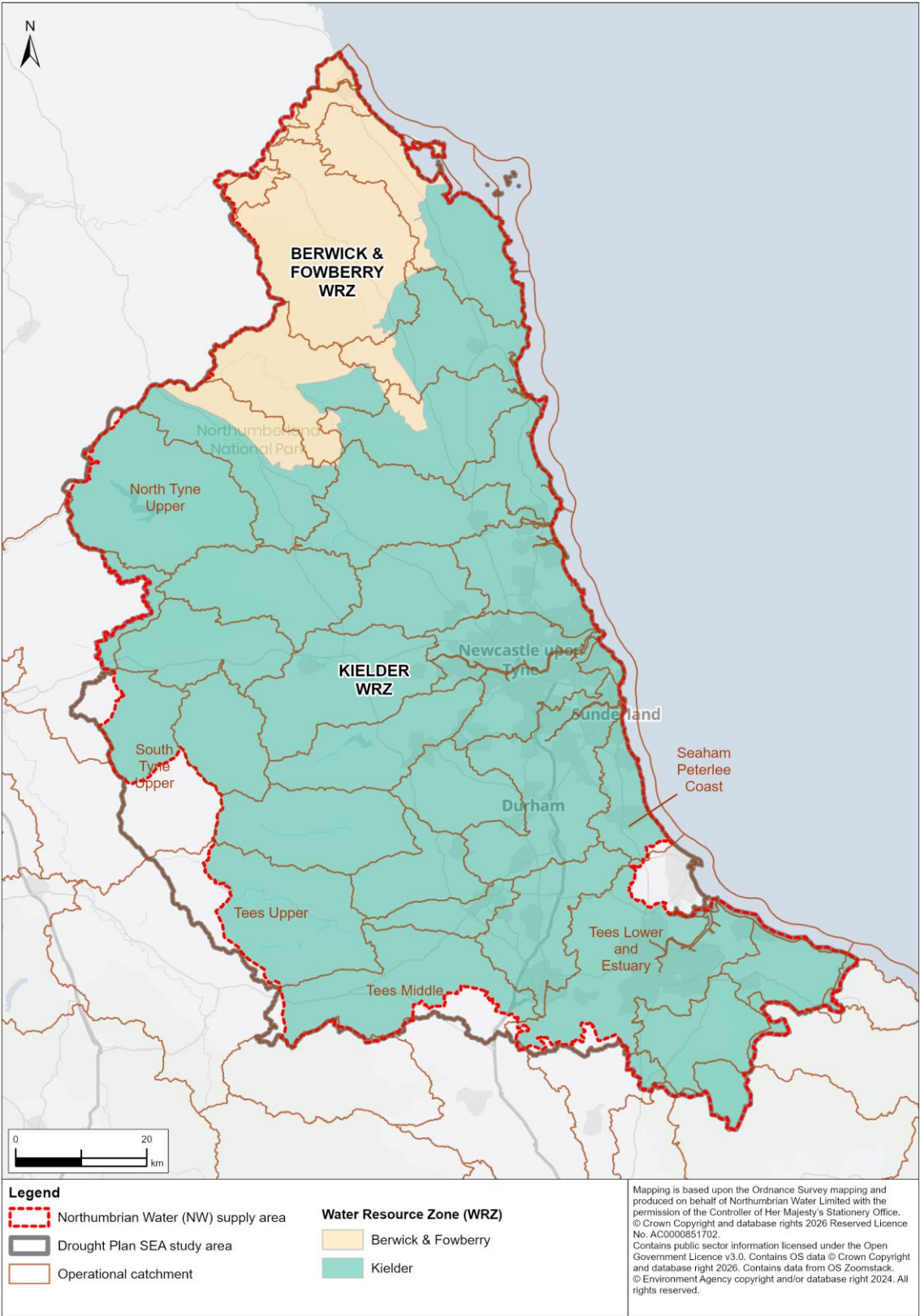


Figure 4.1 Spatial extent of the geographical data collection areas

An overview of our supply areas, broken down into WRZs, is provided 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 the following 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 the NW

NW supply water to approximately 2.8 million customers in the North East of England which extends from the Scottish border in the north to the Yorkshire border in the south, and as far west as the Cumbrian border. The major population centres of Tyneside, Wearside and Teesside are located within NW's supply area.

In accordance with the NW's WRMP24⁴³, the supply area comprises of two WRZs⁴⁴ known as the Kielder WRZ and the Berwick & Fowberry WRZ (see Figure 4.2). Berwick & Fowberry WRZ is in the far north of the supply area and covers approximately 1% of the customers whilst the Kielder WRZ covers the remaining 99% of customers.

While we operate close to the England–Scotland border and share some hydrological catchments with Scotland, there are no direct operational supply linkages with Scottish Water. Any potential interactions are limited to shared river systems and are managed through existing regulatory frameworks. As drought actions are assessed across all relevant catchments and implemented within established controls, significant

⁴³ Northumbrian Water (2024). *Water Resources Management Plan 2025–2030 (WRMP24)*. Available at: <https://www.nwq.co.uk/responsibility/environment/wrmp/wrmp-2025-2030/> [Accessed July 2025].

⁴⁴ A WRZ is defined as the largest possible zone in which all resources, including external transfers, can be shared and hence the zone in which all customers experience the same risk of supply failure from a resource shortfall.

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transboundary effects or operational interactions with Scottish Water are not anticipated and are therefore not assessed further in this SEA Environmental Report.

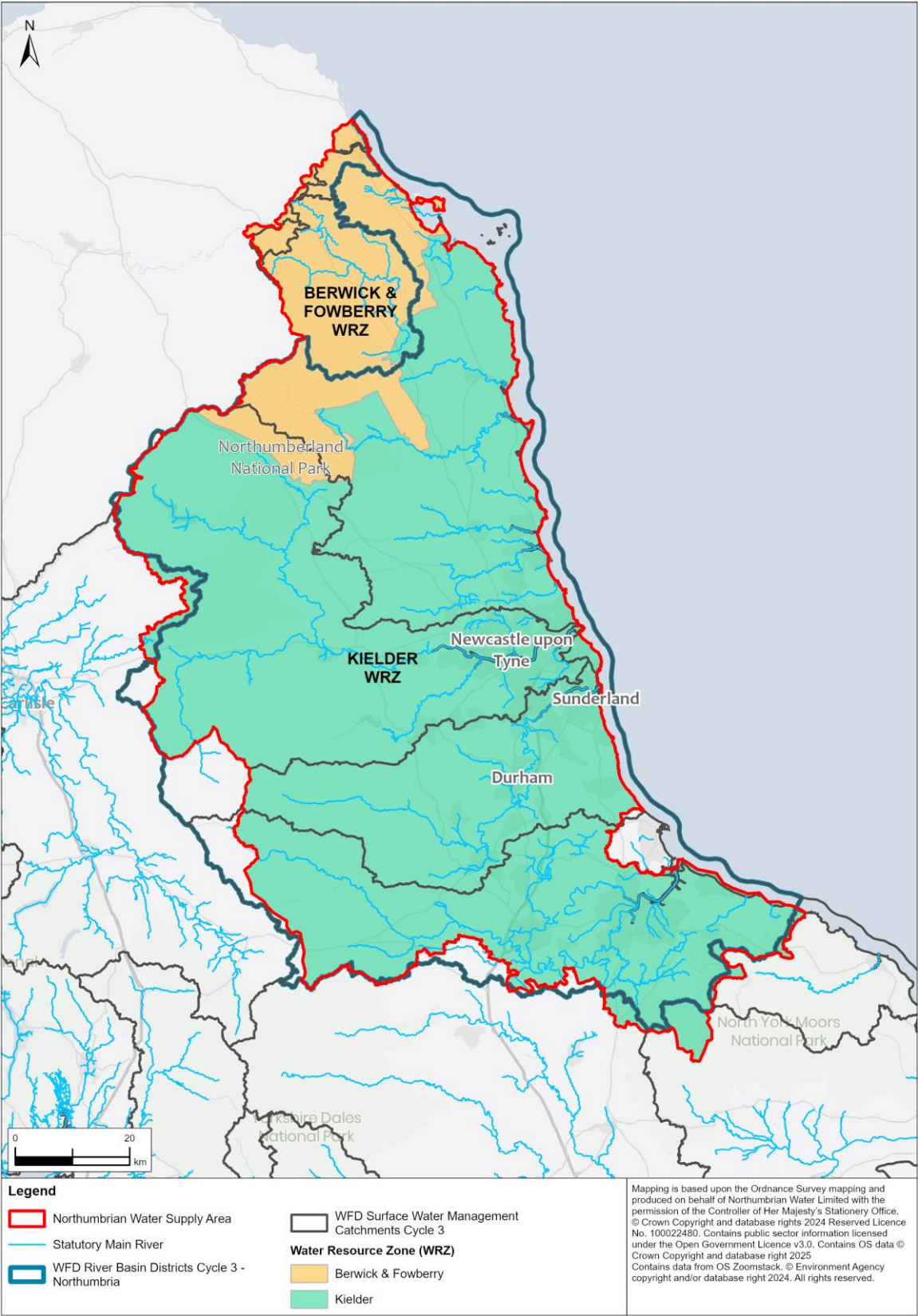


Figure 4.2 Northumbrian Water's supply area

4.3 Water Resources Zones

4.3.1 Kielder WRZ

The Kielder WRZ is divided into six operational areas. These operational areas have been devised by considering the raw water network between various sources and the potable distribution network that allows water to be transferred between areas.

There are three main operational areas within the Kielder WRZ, namely Tyne, Wear and Tees. They can all be supported by Kielder Reservoir (see Figure 4.3) via the Kielder Transfer Scheme (see Section 4.3). In addition, there are potable link mains between the Tyne and Wear operational areas as well as between the Tyne and Tees operational areas. The other three operational areas, Allenheads, Carrshield and Stonehaugh, are small independent areas of supply that are reliant on spring sources. In the event of a drought, these three areas would be indirectly supported from Kielder Reservoir via tankering potable water from Whittle Dene Water Treatment Works (WTW).

Kielder Reservoir is the largest man-made reservoir in the UK by capacity, capable of holding up to 200 billion litres of water. The reservoir was constructed between 1975 and 1981 and officially opened in 1982. It was originally designed to support industrial growth in the North East, but changing economic conditions led to its role evolving into a strategic water resource, and a recreational and environmental asset.

The Kielder WRZ also includes the Teesside Industrial supply which is a supply of screened but untreated water to the large industrial area of Teesside.

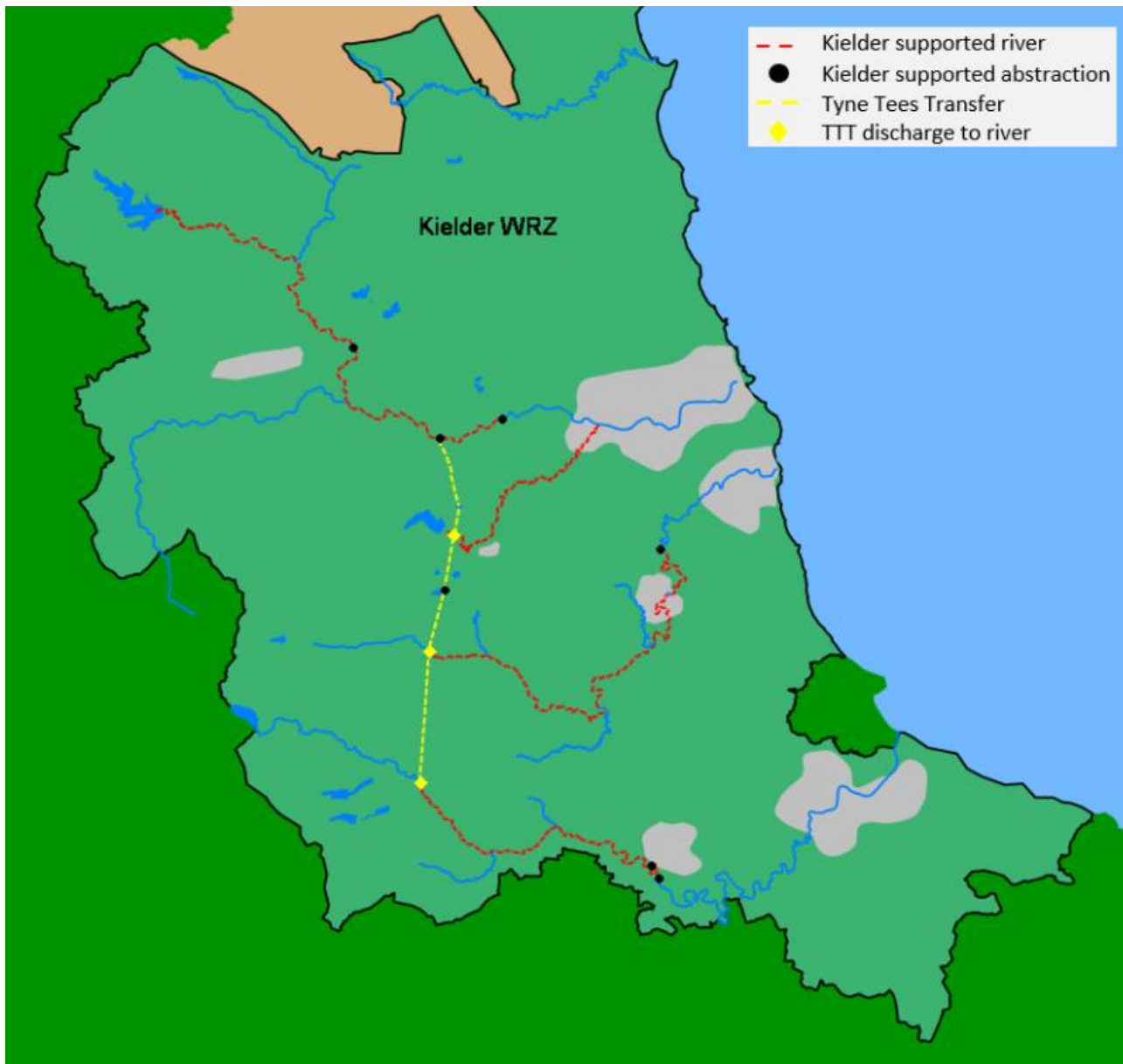


Figure 4.3 Kielder Water Resource Zone

Kielder Transfer Scheme

The Kielder WRZ benefits greatly from and comprises:

- Kielder Dam and associated headworks including release valves and hydropower plant;
- Bakethin Dam;
- a weir and pumping station at Riding Mill on the River Tyne;
- a rising main from Riding Mill to Letch House;
- Airy Holm pond;
- the Tyne-Tees Tunnel (TTT) from Letch House to Frosterley on the River Wear and Eggleston on the River Tees;

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- a connection from the tunnel into the River Derwent and an abstraction into Mosswood WTW; and
- a licensed abstraction from the TTT air shaft at Waskerley.

At the time of design, the principal objective of the Kielder Transfer Scheme was to enhance the water resources of the Tees Demand Management Area to meet the then rapidly increasing demand for water, primarily for industrial use. Although the forecast industrial demands did not materialise when expected, the Kielder Transfer Scheme remains an important strategic supply scheme providing drought resilience for the northeast and forms part of the proposed Kielder Strategic Resource Option (SRO)⁴⁵. Although historically the volume of transfer through the TTT to the River Tees has been limited, the availability of support has enabled cheaper local raw water sources to be used more effectively, and to be drawn down further, without the necessity to place restrictions on water use. As such, our customers in the North East of England benefit from some of the best drought levels of service in the country.

The principal regulating reservoir in the Tees catchment is Cow Green which provides the full required support for prescribed flows and abstractions under normal conditions. During drought or future higher abstractions, releases may be made from the Lune and/or Balder reservoirs or the Kielder Transfer Scheme as required. The outlet portal for the TTT to the River Tees is located at Eggleston.

There are six separate abstraction licences (see Table 4.1) that utilise water from the Kielder Transfer Scheme. These licences, together with associated environmental controls, are set out in the Kielder Operating/Control Manual, which governs how the integrated Kielder Transfer Scheme network is managed. It is therefore recognised that environmental safeguards are embedded not only within abstraction licences but also within the operational rules defined in the Operating Manual, both of which influence system operation and environmental outcomes.

Table 4.1 Public water supply abstraction licences that utilise water from the Kielder Transfer Scheme

Licence No.	Source Name	Annual Licence (Ml/yr)	Daily Licence (Ml/d)
1/23/3/145	Riding Mill (River Tyne)	227304	909.2
1/23/1/002	Ovingham (River Tyne)	54750	180.0
1/24/5/034	Lumley (River Wear)	16593.2	45.50
1/25/2/103	Broken Scar (River Tees)	107675	295.0
1/25/2/109	Blackwell (River Tees)	58075.2	159.1
1/25/4/136	Low Worsall (River Tees)	11000	150.0

⁴⁵ The Kielder SRO is a proposed regionally strategic scheme to use surplus water from Kielder Reservoir to support neighbouring water companies in the north of England, addressing future supply needs from population growth and climate change.

Tyne Operational Area Resources

The northern part of the Tyne operational area is supplied from Warkworth WTW on the River Coquet, a reservoir and treatment works at Fontburn, and from Tosson springs and treatment works. These are linked to the Tyne system with a potable water main and full flow from Warkworth can be replaced with potable water from the Tyne WTW.

For the remainder of the area, water is supplied from six works, three very small works supplying Otterburn, Redesdale and Byrness with a slightly larger works at Gunnerton which supplies the area west of Hexham. Most of the water is treated at Horsley and Whittle Dene which jointly meets the majority of Tyneside and South East Northumberland's demands. Raw water for this area is obtained by abstractions from the River North Tyne at Barrasford, which is stored in a series of reservoirs, and the River Tyne at Ovingham. These are also supplemented by raw water from other impounding reservoirs.

There are also spring supplies at Allenheads and Carrshields.

Wear Operational Area Resources

The Wear operational area is supported by a combination of surface water and groundwater sources. Key surface water sources include the River Wear at Lumley WTW, and two major reservoirs, Derwent and Burnhope, which supply two WTWs. Additionally, three smaller reservoirs (Smiddy Shaw, Hisehope, and Waskerley) feed Honey Hill WTW. Groundwater is abstracted mainly from the Magnesian Limestone aquifer in the eastern part of the operational area, with two small spring sources located in the west. The groundwater system in the Sunderland area is interconnected, allowing flexibility to shift supply between boreholes or supplement with surface water sources during drought conditions.

The operational area also benefits from strategic support via the Tyne-Tees transfer scheme. Water can be transferred directly to Mosswood WTW or discharged into the River Derwent to substitute the compensation flows from Derwent Reservoir, preserving stored water for future use. The scheme can also discharge into the River Wear to maintain flows for abstraction at Lumley, and support Honey Hill WTW directly. Although Tunstall Reservoir no longer supplies a treatment works, it plays a regulatory role by providing compensation releases into the River Wear. This integrated system enhances resilience and operational flexibility, particularly during periods of high demand or drought.

Tees Operational Area Resources

Water for the Tees operational area is primarily sourced from the River Tees, with pumping to supply Broken Scar WTW, and additional abstractions made to meet industrial demand in Teesside. At the head of the River Tees, Cow Green Reservoir plays a key role in regulating river flows, supporting both the Broken Scar WTW and industrial abstractions through statutory compensation releases. Supplementing this system are the Lune and Balder reservoir groups, comprising Selset and Grassholme on the River Lune, and Balderhead, Blackton and Hury on the River Balder. These reservoirs not only supply

Lartington WTW but can also provide regulatory releases to support flows in the River Tees, enhancing the resilience and flexibility of the regional water supply network.

4.3.2 Berwick & Fowberry WRZ

The Berwick & Fowberry WRZ encompasses the towns of Berwick-upon-Tweed and Wooler (see Figure 4.4). It is a small rural zone with a resident population of about 25,000 people but it is a popular tourist area. It is a discrete zone in terms of both water resources and treatment capacity and cannot be supported by Kielder reservoir or the Kielder Transfer Scheme. The resources comprise a series of Fell Sandstone boreholes, five of which supply Murton WTW and two which supply Fowberry WTW. This aquifer stores billions of litres of water in the pores between grains of sandstone, forming a reliable and high-quality groundwater source. The aquifer stretches beneath the ground from Berwick to Wooler and beyond, offering a geographically extensive and resilient source of water.

Although the Berwick & Fowberry WRZ is located in one of the wetter regions of the UK, it is not immune to the effects of prolonged dry periods. NW's Drought Plan 2022⁴⁶ outlines how the zone would be managed to respond to such events, including increased monitoring of groundwater levels, demand management measures, and potential temporary use restrictions.

The zone's rural nature and reliance on groundwater make it less vulnerable to surface water variability but also highlights the importance of sustainable abstraction practices and long-term aquifer health monitoring.

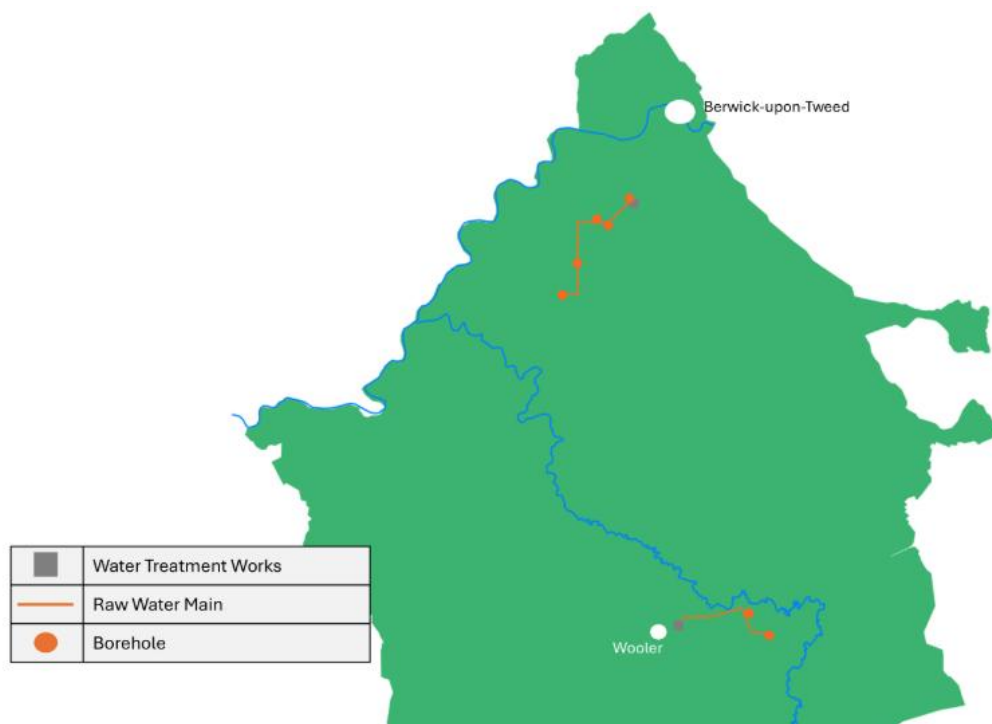


Figure 4.4 Berwick & Fowberry Water Resource Zone

⁴⁶ Northumbrian Water (2022). *Our Draft Drought Plan 2022 Summary*. Available at: <https://www.nwg.co.uk/globalassets/corporate/environment-pdfs/drought-plan/nw/drought-management-plan-summary-nw-final.pdf> [Accessed July 2025].

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 4.2. This summary has been used to support the development of the SEA objectives set out in Chapter 5.

Table 4.2 Key issues and opportunities associated with each SEA Regulations topic

SEA topics	Issues	Opportunities
Biodiversity, Flora and Fauna	The area is rich in habitats and species diversity with national and internationally designated sites including Sites of Special Scientific Interest, National Nature Reserves, Special Protection Areas, Special Areas of Conservation and Ramsar sites across NW supply area. 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 such as otters, water voles, great crested newts, and a range of wading birds (e.g., curlew, lapwing). Wetland and marsh habitats are particularly vulnerable, as they depend on consistent water availability. Other potential risks include: ▪ Changes in flow and volume: reduced flows can alter habitat structure, reduce connectivity, and impact species reliant on specific flow regimes. ▪ Changes in water chemistry: increased concentrations of nutrients or pollutants during low-flow periods can lead to eutrophication or toxicity for aquatic organisms. ▪ Drying of habitats: this can result in habitat fragmentation, loss of breeding sites, and disruption of ecological communities, particularly for amphibians and invertebrates. We must therefore ensure that these sensitive areas are protected from abstraction and we should continue to seek opportunities to reduce abstraction pressures where it 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 ▪ Address biosecurity risks, including the management of INNS ▪ Protect sensitive wetlands and Groundwater Dependent Terrestrial Ecosystems

SEA topics	Issues	Opportunities
Water	Physical modifications are the predominant pressure in the Northumbria River Basin District (RBD) and the Solway Tweed RBD including channel straightening, bank reinforcement, and the construction of barriers, which disrupt natural flow regimes and degrade habitats. Our drought actions have the potential to amplify these impacts by reducing flows and increasing habitat fragmentation cause by existing structures. High or low groundwater levels and mine water can also pose significant concerns, particularly where elevated groundwater coincides with low river flows, reducing dilution and negatively affecting surface water quality. 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 rivers, costal and surface water flooding. However, drought actions included in our Drought Plan are unlikely to increase flood risk, as they do not alter the physical processes that contribute to flooding or influence rainfall-driven hydrological conditions.	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
Soil	Agriculture has a dominant role in the landscape of our supply areas. The most common agricultural land classifications in this 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.	Our drought actions should avoid impacts on higher-grade agricultural land and include appropriate mitigation where such impacts cannot be fully avoided. There are also opportunities for the drought action related mitigation measures to deliver beneficial outcomes for agriculture. For example, drought actions designated to increase raw water storage and supply can: ▪ Promote regenerative agricultural practices ▪ Ensure measures are taken to prevent soil erosion ▪ Reduce nutrient loads within surface water and groundwater bodies

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SEA topics	Issues	Opportunities
	Climate change is expected to increase both the severity and frequency 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.	
Air	Air quality across our supply area is varied. In general, air quality is good, however there are three Air Quality Management Areas (AQMAS) within our supply areas, with key pollution sources include 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 traffic movements and other transport-related activities required to support drought response operations.	Consideration of impacts on air quality should form part of our action selection development and mitigation measures.
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. Rainfall data for reservoir catchments within our supply area compared with the long-term average (1961–1990) revealed that across all eight catchments, rainfall follows a clear yearly pattern. Rainfall is usually highest in late autumn and winter (around October to February) and lowest in late spring and summer (around May to August). All catchments experience lower rainfall during the summer months. The larger upland reservoir catchments, such as Kielder, Cow Green, Derwent and Waskerley, generally receive more rainfall overall and tend to have higher rainfall in winter.	Our Drought Plan has an important opportunity for us to consider the impact 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, 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 resilience of our region to severe drought.

SEA topics	Issues	Opportunities
	Smaller or more supply-sensitive catchments, including Fontburn, Colt Crag, Hallington and Burnhope, receive less rainfall overall and show larger changes from month to month. Summer rainfall is particularly low in these catchments. In addition, some drought actions within our Drought Plan may result in carbon emissions, e.g. from road tankering or increase operation of pumps, 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.	
Population and human health	Population growth across our supply area 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, ensuring there is sufficient water to meet the needs of a growing population and to support continued economic growth. As pressures on water resource increase, the economic value of water may also rise, potentially requiring a great 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 ▪ 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.	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.

SEA topics	Issues	Opportunities
	Drought actions proposed within our Drought Plan have the potential to affect 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.	
Landscape	The landscape across our supply area 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.
Material assets	Our supply areas contain important transport links that support the regional and national economy. We also operate significant water and wastewater treatment infrastructure.	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 consumptions, 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

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SEA topics	Issues	Opportunities
	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. These activities may also place temporary additional pressure on the transport network, for example through increased HGV movements associated with tankering operations, which could contribute to localised congestion or disruption.	▪ Avoid impacts on the transport network.

5 ASSESSMENT METHODOLOGY

5.1 Introduction

This section outlines the methodology that has been used to undertake the SEA of the drought actions included in the NW 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 the NW Drought Plan follow guidance from the following key documents:

- Environmental Assessment Guidance for WRMP
- A Practical Guide to the SEA Directive⁴⁷
- Water Company Drought Plan Guideline⁴⁸
- Water Resources Planning Guideline Supplementary Guidance⁴⁹

⁴⁷ Office of the Deputy Prime Minister, 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 Sept 2025].

⁴⁸ 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 Aug 2025]

⁴⁹ 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 Aug 2025].

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- Environmental Assessment for Water Company Drought Planning: Guidance⁵⁰

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, a widely recognised method for evaluating environmental effects and comparing alternative actions. The 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 the NW supply area 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 the WRMP24 SEA. Objectives that were scoped out from WRMP24 are outlined in the SEA Scoping Report⁵¹.

The SEA objectives and associated indicator 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 and were updated 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
- Operational characteristics

⁵⁰ 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.

⁵¹ Northumbrian Water (2025) SEA Scoping Consultation. Available at: <https://www.nwg.co.uk/sea-scoping-assessment> [Accessed Oct 2025].

- Relevant information from Environmental Assessment Reports (EARs)^{52,53,54,55}
- 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 Sites of Special Scientific Interest (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.

⁵² Northumbrian Water (NW) (2026). Bleakridge Environmental Assessment Report (EAR). [Unpublished]. Available on request.

⁵³ Northumbrian Water (NW) (2026). Burnhope Environmental Assessment Report (EAR). [Unpublished]. Available on request.

⁵⁴ Northumbrian Water (NW) (2026). Derwent Environmental Assessment Report (EAR). [Unpublished]. Available on request.

⁵⁵ Northumbrian Water (NW) (2026). Kielder 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.	- 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
	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.		
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.	- Will the action affect surface water quality or quantity? - Will the action affect ground water quality or quantity?	Drought Plan information EARs: WFD status

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SEA topic	SEA objectives	Indicator questions	Source of information
	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 (RBMPs). To increase water efficiency and increase resilience of water supplies and natural systems to droughts.	- 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? - 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?	- water quality assessment - hydrological assessment - 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 Sites of Special Scientific Interest 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.	Will the action affect carbon or other greenhouse gas emissions?	Drought Plan information

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SEA topic	SEA objectives	Indicator questions	Source of information
	To introduce climate mitigation where required and improve the climate resilience of assets and natural systems to the threats of climate change.	- Does the action include measures to improve resilience to climate change and drought? - Will the action create catchment resilience to drought?	
Population and human health	To maintain the health and wellbeing of the local community, including economic and social wellbeing.	- 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? - Will the action enhance public awareness, engagement or understanding of the natural environment? - Will the action maintain or enhance the quality, accessibility and use of the water environment for recreation, tourism and navigation?	Drought Plan information
	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.	- 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)?	EAR archaeology assessment and spatial information

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SEA topic	SEA objectives	Indicator questions	Source of information
		Will the action alter the hydrological conditions of water-dependent heritage assets, including organic remains?	
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 such as utilities and transport network?	Drought Plan information
	Avoid adverse effects on built assets and infrastructure		

5.2.1 Primary Assessment

The appraisal framework set out in Table 5.1 was used to assess how each of our proposed 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 drought actions for inclusion.

Our framework comprises several key components: 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 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 any defined monitoring and additional mitigation measures. This approach ensures that the significance ratings represent residual effects 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, level of certainty, and the duration and permanence of the effect, 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	Low	Short-term	Temporary
Regional	Moderate	Medium-term	Permanent
National	High	Long-term	

We also assessed the value/sensitivity of the affected receptors using a low, medium, or high rating, as shown in Table 5.3, supported by colour-coded 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

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effects were negligible or absent. Where the effect on a receptor was identified as negligible, the assessment nevertheless considered factors including the scale, certainty, duration, permanence, and magnitude of effect, alongside embedded and additional mitigation measures. Taking these factors into account, the residual effects on the identified receptors were concluded to be neutral.

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 receptors(s) = locally important and/or resilient to loss/condition change and/or limited capacity for enhancement Medium value receptor = regionally important and/or with some resilience or capacity to accommodate loss or condition change or capacity for enhancement High value 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	SEA objectives	Indicator 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	Residual adverse effect significance	Residual Beneficial effect significance
E.g. Biodiversity, Flora and Fauna	To protect 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? - Will the action protect and enhance aquatic habitats and species, including freshwater fisheries? - 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?									
	To avoid introducing or spreading and, where feasible, manage INNS.										

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SEA topic	SEA objectives	Indicator 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	Residual adverse effect significance	Residual Beneficial effect significance
	<i>To meet WFD objectives relating to biodiversity.</i>	▪ <i>Will the action affect any habitats that support legally protected species or species of conservation concern?</i> ▪ <i>Is there potential for contribution to achieving 'favourable' conservation status or for creation of new priority habitats?</i> ▪ <i>Is there a possibility for INNS to be spread/introduced or for algal blooms to occur?</i>									

5.2.2 Secondary, Cumulative and Synergistic Environmental Effects

Schedule 2(6) of the SEA Regulations requires the assessment of: “*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 effects were defined and considered as follows:

- **Secondary or indirect effects** - effects that are not a direct result of the plan, (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 each have insignificant effects 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 human 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 consider embedded and additional mitigations identified and also take into account other factors that may influence the receiving environment over the short, medium and long term.

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Drought action 2				
Drought action 3				
Drought action 4				
Drought action 5				
Drought action	Drought action 1	Drought action 2	Drought action 3	Drought action 4

	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

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, or projects, such as our WRMP24 and WRMPs and Drought Plans of neighbouring water companies’.

The 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. We also identify mutually exclusive actions, such as those dependent on the same resource or site
- **Interaction with other WRMPs and DWMPs:** We assessed cumulative effects between our Drought Plan and our WRMP24 and DWMP, 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 drainage and wastewater management plans that could influence water quality, river flows, or infrastructure capacity.
- **Evaluation of cumulative effects with the Water Resources North (WReN) 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 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 Northumberland Line Rail Project, A66 Northern Trans-Pennine Upgrade, Berwick Hospital and North East Investment Zone.

A key limitation in assessing cumulative or in-combination effects is the inherent unpredictability of which drought actions will be implemented during any given drought event. While we can assess individual environmental effects, it was 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 potential for impacts on shared receptors such as the same designated site or river reach.

Given the uncertainty surrounding the timing and combination of drought actions, our SEA findings, and relevant 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 the Environmental Report.

5.3 Limitations of the Assessment

SEA is a planning-level assessment intended to highlight potential environmental concerns at a strategic level. 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 as part of preparations to implement any specific drought actions to take account of the prevailing environmental conditions and any new evidence that is available at that time.

5.3.1 Linked Environmental Assessments

Habitats Regulations Assessment

The HRA standalone assessment is a statutory requirement under the Conservation of Habitats and Species Regulations 2017 (as amended)⁵⁶. It provides important evidence to support our SEA objective on biodiversity. The stages of HRA include the test of Likely Significant Effects (LSE), followed by Appropriate Assessment (AA) where required, and 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 the Drought Plan, providing a detailed understanding of the impact of potential effects of our drought actions on designated Habitats sites and any associated

⁵⁶ UK Government (2017). The Conservation of Habitats and Species Regulations 2017. Available at: <https://www.legislation.gov.uk/uksi/2017/1012> [Accessed June 2026].

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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 Water Environment (Water Framework Directive) (England and Wales) Regulations 2017⁵⁷ 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 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.

⁵⁷ Legislation.gov.uk (2017). The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. Available from: <https://www.legislation.gov.uk/uksi/2017/407/contents> [Accessed June 2026]

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 combinations of actions are applied.

The Drought Plan and WRMP are aligned but serve distinct purposes. The Drought Plan provides the basis for short-term, operational responses to drought, whereas the WRMP is strategic in nature and covers medium- to long-term planning. Both plans apply a structured appraisal process to supply- and demand-side options/actions. The WRMP also considers alternative combinations of options under different future scenarios. The approach applied to the Drought Plan is set out in Chapter 2, with decisions recorded in the Drought Plan rejection register. This identified a wide range of possible actions to provide the unconstrained list (long list) of 80 demand-side and 11 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 10 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. As described in Section 2.6, three supply-side drought actions involving the cessation of environmental spate releases were further rejected after initially being included in the Drought Plan at the SEA Scoping stage as viable drought action. Subsequent hydraulic assessment demonstrated that there is a negligible likelihood of these actions ever being triggered, and they were therefore excluded from the Drought Plan.

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

6.3 Assessment of Proposed 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

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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 or grouped drought action 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	Significance uncertain

6.4 Demand-side actions assessment findings

A visual summary of the findings of the SEA for each of the demand-side actions in the 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, leakage and operational losses. This supports maintenance of river flows, protection of flow-sensitive habitats and species, and improved resilience of natural systems during drought conditions. The assessment indicates that effects across these actions are predominantly neutral, with no significant adverse effects identified.

Minor short-term adverse effects identified include localised disturbance to soils, and temporary noise, traffic and associated air-quality impacts arising from leakage detection, repair activities and community engagement actions; minor greenhouse gas emissions associated with operational activities (e.g. vehicle movements); potential temporary inconvenience or reduced service levels for some customers (e.g. pressure reduction, communications, or operational measures such as flushing cessation); minor risks to water quality or customer experience associated with temporary operational changes (e.g. stopping proactive flushing); and potential short-term adverse effects on certain customer groups arising from removal of TUBs/NEUBs exceptions, although these can be mitigated through targeted engagement and clear communication. These adverse effects are temporary, localised and reversible.

Demand-side actions are assessed as generating minor to moderate beneficial effects across a range of SEA objectives. Key benefits include reductions in abstraction pressures, resulting in improved river flows, increased water quality resilience, and enhanced protection of aquatic and terrestrial habitats, consistent with the objectives of the WFD and RBMPs. Further beneficial effects include improved water-use efficiency, reduced treatment requirements and associated energy demand, and enhanced protection

and longevity of existing infrastructure assets. These measures also contribute to increased supply resilience and reliability during drought conditions, while supporting long-term behavioural change through targeted communication, education, and water efficiency initiatives.

Government-led interventions are assessed resulting in the greatest number of moderate beneficial effects across all SEA objectives, which are classified as significant in accordance with Table 6.1. Across the majority of demand-side actions, effects are consistently identified as moderate beneficial (significant) against the SEA objective of maintaining the health and wellbeing of local communities.

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Table 6.2 Visual summary of SEA outcomes for demand-side drought actions

Table 5.2 Visual summary of SEA outcomes for demand-side drought 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	+	+	
Customer communications	Adverse	0	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	

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
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	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

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
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	

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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	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		
Stop proactive flushing	Adverse	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		

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
Optimising water supply	Adverse	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 throughput 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	

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
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 but considered neutral and no long-term infrastructure impacts.	
	Beneficial	+	0	0	+	+	+	+	+	0	0	0	+	+	0	0	+	0	0	0		
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	Removal of TUBs/NEUBs exceptions reduces abstraction in sensitive periods, supporting flows and ecological resilience, with negligible carbon or air-quality effects. While there is a risk of customer compliance and disproportionate effects on some groups, targeted consultation with affected users and clear communication on restrictions can help mitigate these impacts. Improved flows benefit recreation, navigation, and priority habitats.	
	Beneficial	+	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
Management of SOP storage	Adverse	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		
Seasonal Tariffs	Adverse	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	+		+

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
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 beneficial effect by providing short-term operational flexibility to manage demand variability, but this is considered neutral; 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	0	

6.5 Supply-side drought actions assessment findings

A visual summary of the SEA findings for each supply-side action is provided in Table 6.3, with detailed appraisal tables included in Appendix F. Overall, supply-side actions are not anticipated to result in any significant adverse effects. These actions operate largely within existing infrastructure and focus on redistributing water and abstraction, prioritising more resilient sources, while supplementing flows or optimising system operation during drought. The Kielder Transfer and groundwater source optimisation actions also operate within existing licensing constraints. As a result, effects are generally neutral to minor beneficial, with no significant adverse effects identified.

Minor adverse effects associated with supply-side actions are typically limited to localised air emissions (e.g. from tankering or operational vehicle movements); temporary soil disturbance or spill risks; short-term, localised changes to flows or water quality during operational adjustments; minor increases in energy use and operational carbon emissions in some cases; small temporary visual or traffic effects, particularly for actions involving tankering or movement of resources. These effects are short-term, localised and reversible, and are managed through embedded mitigation, including best-practice operational controls, environmental monitoring and regulatory compliance.

Most supply-side actions are assessed as resulting in minor beneficial effects. These include maintenance of environmental flows and support of aquatic habitats during drought conditions; protection of designated sites and compliance with WFD and RBMP objectives; enhanced drought resilience and operational flexibility of the supply system; maintenance of reliable public water supply and protection of population health; and improved resource efficiency through optimisation of existing infrastructure.

Groundwater source optimisation, Bleak Ridge, Burnhope Reservoir and Derwent Reservoir drought actions are assessed to result in moderate beneficial effects against the Population and Human Health SEA objectives relating to water supply resilience and community wellbeing. These comprise objectives to secure resilient, high-quality, sustainable and affordable water supplies over the long term, and to maintain the health and wellbeing of local communities, including associated economic and social benefits, with the latter not applicable to the Derwent Reservoir action. In accordance with Table 6.1, these effects are classified as significant. Overall, supply-side actions deliver a beneficial contribution to drought resilience and environmental protection, with minor adverse effects that are temporary, controlled and not significant.

Table 6.3 Visual summary of SEA outcomes for supply-side drought actions

Action	Effect	SEA Objective s (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 and WTWs optimisation	Adverse	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	Raw water and WTWs 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	0	
Coordination planning	Adverse	0	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	0	
Tankering of water	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 could potentially 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 only short-term.
	Beneficial	0	0	0	+	0	+	+	0	0	0	0	+	+	+	0	+	0	0	0	0	0	

Action	Effect	SEA Objective s (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	
Groundwater source optimisation	Adverse	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	Groundwater source optimisation uses existing infrastructure, it may cause minor, temporary and reversible changes in baseflow and sediment transport, but these are negligible. Any increases in energy use or emissions from pump adjustments are small and short-term. Environmental assessments indicate no deterioration in habitats or WFD status, and no effects on historic environment. Overall, the action supports drought resilience and water supply reliability without introducing long-term environmental pressures with estimated frequency of approximately 1 in 200 years (0.5% annual probability).
	Beneficial	0	0	0	0	0	0	0	+	0	0	0	+	+	+	0	0	0	0	+	+	
Kielder Transfer	Adverse	0	0	0	0	-	0	0	0	-	0	-	0	0	0	0	0	0	0	0	0	The Kielder Transfer drought action has some minor environmental effects. Hydrological modelling confirms negligible changes to flows overall, with variations remaining within natural variability. Water quality modelling shows small changes in Biochemical Oxygen Demand (BOD), ammonia and phosphate due to source blending, but no deterioration in WFD class. Geomorphological effects are limited and temporary. The action enhances drought resilience, supports water supply, avoids construction impacts, and maintains recreational, landscape, and heritage conditions.
	Beneficial	0	0	0	0	0	+	0	+	0	0	0	+	+	+	0	+	0	0	+	+	

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Action	Effect	SEA Objective s (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
Bleak Ridge	Adverse	0	0	0	0	-	-	0	0	0	-	-	0	0	0	0	0	0	0	-	0	Impacts are minor, short term, reversible and confined to drought duration, with no habitat loss, INNS risk or WFD deterioration. Water quality, flows, soils, air, climate and landscape remain unchanged. No effects on connectivity, recreation, historic environment are identified. The action strengthens water supply resilience and safeguards public health while maintaining compliance through monitoring, triggers and adaptive management under exceptional drought conditions.
	Beneficial	0	0	0	0	0	0	0	+	0	0	0	+	++	++	0	0	0	0	0	0	
Burnhope	Adverse	-	0	-	-	-	-	0	0	0	0	0	0	0	0	0	0	-	0	0	0	The drought action temporarily reduces flows in Burnhope Burn and the upper River Wear, causing short-term habitat contraction, reduced hydraulic diversity and minor water quality changes. Ecological effects on aquatic receptors are limited, reversible and remain within WFD High thresholds. No impacts occur to designated sites, terrestrial habitats or infrastructure. Effects are managed through monitoring and triggers. The action maintains water supply resilience, with negligible and localised impacts on recreation and landscape.
	Beneficial	0	0	0	0	0	0	0	+	0	0	0	+	++	++	0	0	0	0	0	0	

Action	Effect	SEA Objective s (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	
Fontburn	Adverse	-	0	0	0	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0	Modelling indicates minor, localised and temporary reductions in flow variability and wetted habitat, diminishing downstream. Ecological receptors remain resilient, with no habitat loss, fragmentation, or connectivity impacts. Water quality, biological elements and designated sites remain within WFD-compliant status, with no deterioration predicted. No risks to groundwater, geomorphology, heritage, air quality or infrastructure arise. Effects are negligible, reversible, and confined to short-term drought conditions, supporting overall environmental and system resilience.
	Beneficial	0	0	0	0	0	0	0	+	0	0	0	+	+	+	0	0	0	0	+	0	
Derwent	Adverse	-	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Assessments show minor, localised reductions in flow variability, attenuation downstream. Ecological receptors, habitats and sites remain resilient, with no fragmentation, connectivity loss or change to inundation patterns. Water quality, hydrology geomorphology remains within baseline ranges, with no groundwater impacts. All WFD elements avoid deterioration and retain Good Ecological Potential. Effects are negligible, reversible, and confined to drought periods, with no impacts on infrastructure, heritage air quality, recreation or public supply.
	Beneficial	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

We must ensure our Drought Plan complies with the Habitats Regulations 2017 (as amended), which require assessment of any plan likely to affect Habitats sites. To meet this requirement, we prepared an HRA Screening Report⁵⁸ for our Drought Plan 2027, assessing all drought actions using a source pathway receptor approach to identify potential Likely Significant Effects.

We screened out all demand-side actions, as they relate to communications and existing system management and have no pathway to affect Habitats sites. From the total of nine supply side-actions which are included in our Drought Plan, five supply-side actions, as shown in Table 2.2, are not included for individual assessment as they operate within existing consents or have no hydrological connection to Habitats sites.

Only one supply-side action (Fontburn Reservoir cessation of environmental spate flows, Level 3a) identified a potential pathway to downstream Habitats sites. However, the predicted effects, minor and temporary changes in sediment transport, are localised, remain within natural variability, and are considered ecologically insignificant. The remaining three supply-side actions were also assessed but did not identify any pathways for likely significant effects on Habitats sites.

As no Likely Significant Effects were identified for any actions on Habitats sites, either alone or in combination, it is concluded that Likely Significant Effects can be ruled out. Therefore, no further Appropriate Assessment is required, and we can adopt the Drought Plan in compliance with the Habitats Regulations.

6.6.2 Water Framework Directive Assessment

Stage 1

During our Strategic Stage 1 WFD assessment⁵⁹ each action was assessed in terms of its effects on biological, hydromorphological, and physico-chemical elements of the water environment, as well as implications for drinking water supply, water body resilience, and aquatic habitats. The assessment included a screening process to assess what actions should be screened out, and what actions should be screened in and progressed to Stage 2 WFD Compliance Assessment.

The following supply-side drought actions were screened out during Stage 1 WFD assessment:

- Derwent Reservoir System (Cease environmental spate releases)
- Fontburn Reservoir (Cease environmental spate releases)

⁵⁸ Northumbrian Water (NW) (2026). NW Drought Plan 2027 Habitats Regulations Assessment Screening Report. WN025_0000-JAC-ZZ-ZZ_000-DOC-TE-0001

⁵⁹ Northumbrian Water (NW) (2026). NW Drought Plan 2027 Strategic Water Framework Directive Report. WN025_0000-JAC-ZZ-ZZ_000-DOC-TW-0001

- Groundwater source optimisation (lowering of borehole pumps at Murton, Thornton Mains and Bleak Ridge).
- Raw water and water treatment works optimisation
- Coordination planning to optimise planned outages
- Road tinkering from Whittle Dene WTW to service reservoirs

Based on the explanation provided in Section 2.6, drought actions related to reduced environmental spate releases were also not taken forward for further WFD assessment (Fontburn and Derwent Reservoir drought actions). The justification for this was that stopping spate flows is considered low risk because they are temporary additions, while the essential baseline compensation flow required to protect the water body remains in place. Consequently, the impact on the status of the water body is expected to be negligible. The remaining three were also screened out as no credible impact pathway to WFD receptors was identified. Raw water and water treatment works optimisation relates to the optimisation of existing transfers, treatment processes and assets within the current supply system and does not involve changes to abstraction regimes, new infrastructure, or physical modification of water bodies. Coordination planning to optimise planned outages is an operational measure focused on improving maintenance scheduling and does not involve direct interaction with the water environment or changes to abstraction or discharge activities. Similarly, road tankering from Whittle Dene WTW to service reservoirs involves the transport of treated water within the network and does not require additional abstraction, alterations to discharges, or in-channel works.

Stage 1 WFD assessment identified that the following drought actions have a potential risk to have an impact on surface or groundwater bodies:

- Kielder Transfer: Assessed as having a medium risk due to the potential for cumulative impacts on biological, hydromorphological, and physico-chemical parameters in receiving water bodies (North Tyne, Tyne to Riding Mill, Wear, and Tees).
- Burnhope Reservoir: Potential medium impacts identified for Burnhope Reservoir and Burnhope Burn (Source to Wear), as well as the Wear Carboniferous Limestone and Coal Measures groundwater body.
- Bleak Ridge: Potential medium impacts identified for several river water bodies, including North Low, Newbiggin Dean Catch, and Horncliffe Mill Burn and multiple groundwater bodies.

For each of these actions, it was concluded that a Stage 2 WFD Compliance Assessment is required.

Stage 2

Kielder Transfer drought action

As presented in the Stage 2 WFD assessment⁶⁰ and taking into consideration the negligible to low magnitude of predicted changes and the absence of any significant

⁶⁰ Northumbrian Water (NW) (2026). NW Drought Plan 2027 Stage 2 Water Framework Directive (WFD) Report – Kielder Transfer Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-W-0009

adverse effects of the Kielder Reservoir drought action on the biological, physico-chemical and hydromorphological quality elements of the three assessed relevant water bodies (Tyne from Watersmeet to Tidal Limit Water Body; Wear from Middlehope Burn to Houselop Beck Water Body; Tees from Maize Beck to Percy Beck Water Body) the action is unlikely to compromise progress towards achieving Good Ecological Potential or cause a deterioration of its overall ecological potential.

Burnhope Reservoir drought action

As presented in the Stage 2 WFD assessment⁶¹ and taking into consideration the absence of, or very low potential for, impacts of the Burnhope Reservoir drought action on the biological, physico-chemical and hydromorphological quality elements of the Burnhope Reservoir and Burnhope Burn from Source to Wear Water Bodies, the action is unlikely to compromise progress towards achieving Good Ecological Potential or cause a deterioration in ecological potential.

Additional water bodies considered within the assessment, including the Wear from Wearhead to Middlehope Burn, Ireshopeburn Water Body and the Wear from Middlehope Burn to Houselop Beck Water Body were assessed at the screening stage. These water bodies were determined to be not sensitive to the proposed drought action.

Similarly, the Wear Carboniferous Limestone and Coal Measures Groundwater Body (GB40302G701600) was considered at the screening stage. No credible pathway for impacts on groundwater quantitative or chemical status was identified, as groundwater conditions are governed by longer-term recharge processes rather than short-term variations in surface water flow. As such, the groundwater body was also scoped out of Stage 2 WFD assessment.

Bleak Ridge drought action

The Stage 2 WFD assessment⁶² determined that all surface water bodies could be screened out due to the absence of groundwater-surface water connectivity.

Two groundwater bodies were screened out as follows:

- The Northumberland Carboniferous Limestone and Coal Measures Groundwater Body was screened out as the Bleak Ridge borehole abstracts from the deeper Fell Sandstone Formation rather than the Scremerston Coal Member aquifer.
- The Till Devonian and Lower Carboniferous Groundwater Body was screened out due to a geological boundary between Fell Sandstone and Ballagan Formation outcrops.

The Till Fell Sandstone Groundwater Body was screened in as the drought action directly draws from this aquifer unit. Most WFD quality elements for this Groundwater Body were subsequently scoped out; however, water balance, drinking water protected areas (due to

⁶¹ Northumbrian Water (NW) (2026). NW Drought Plan 2027 Stage 2 Water Framework Directive (WFD) Report – Burnhope Reservoir Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-TW-0007

⁶² Northumbrian Water (NW) (2026). NW Drought Plan 2027 Stage 2 Water Framework Directive (WFD) Report – Bleak Ridge Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-TW-0006

the presence of a Safeguard Zone), and general chemical quality (given its current Poor status) were scoped in for further assessment.

The impact assessment found the following:

- Negligible to very low potential for impacts on the quantitative elements of the Till Fell Sandstone Groundwater Body as a result of the drought action.
- No significant impacts on water balance, and recovery expected within six to 12 months due to the minor impacts from horizontal drawdown propagation and negligible impacts of vertical drawdown propagation.
- Low chemical impacts, as it is unlikely that the drought action will lead to the increase in concentrations of water quality parameters in the Till Fell Sandstone Groundwater Body.
- No measurable effects on nearby designated sites are expected due to the lack of groundwater-surface water interactions, and no Groundwater Dependent Terrestrial Ecosystems occur within 2km.
- No risk of introducing invasive non-native species, as no construction or physical modifications are required to the existing Bleak Ridge borehole.

Overall, the WFD assessment concluded that none of the drought actions in the NW Drought Plan trigger the need for a detailed assessment. All actions operate within existing licence terms and conditions, and the screening identified no risk of deterioration in current Ecological Status, nor any risk of constraining progress towards achieving Good Status or Good Potential (for designated Heavily Modified Water Bodies).

7 CUMULATIVE ASSESSMENT

As presented in Section 5.2, 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 undertaken 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 actions 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 Chapter 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 Levels 3a and 3b. 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 raw water and treatment works, coordination of planned outages, operation of strategic transfer schemes, and the use of tankering where required. At higher drought levels, additional measures such as compensation flow reductions, suspension of spate releases, and increased abstraction and groundwater source optimisation are implemented to maintain water supplies. In combination with demand-side actions, these measures contribute to a more efficient and resilient balance between water supply and demand during prolonged dry conditions, although higher-level interventions introduce greater environmental pressures and associated trade-offs.

The 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

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 TUBs and NEUBs																				
Management of SOP storage																				
Seasonal Tariffs																				
Kielder Transfer																				
Operational coordination																				
Tankering of water																				
Groundwater source optimisation																				
Bleak Ridge																				
Burnhope Reservoir																				
Fontburn																				
Derwent																				
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 TUBs and NEUBs	Management of SOP storage	Seasonal Tariffs	Kielder Transfer	Operational coordination	Tankering of water	Groundwater source optimisation	Bleak Ridge	Burnhope Reservoir	Fontburn

	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

7.2 Habitats Regulations Assessment Cumulative Assessment

The EARs developed for drought actions considered the potential hydrological effects arising from the simultaneous deployment of drought actions both within the same catchments, and across different catchments. Potential cumulative effects arising from interactions with other non-public water supply abstractions were also considered, as were potential indirect water quality effects associated with reduced dilution.

In accordance with the Habitats Regulations, the assessment has therefore considered the in-combination effects of the drought actions in our Drought Plan with other plans and projects that could have an impact on the Habitat Sites identified within this HRA.

Fontburn Reservoir is the only drought action with a potential pathway to effect but is assessed as not having a Likely Significant Effect on qualifying features of Habitat Sites. The absence of Likely Significant Effect from this and other drought actions indicates that there can be no in-combination effect on the simultaneous use of drought actions within the NW Drought Plan.

7.3 Water Framework Directive Cumulative Assessment

Across the three Stage 2 WFD reports (Kielder Transfer⁶³, Burnhope Reservoir⁶⁴, and Bleak Ridge⁶⁵), the cumulative assessment indicates no significant adverse effects on WFD objectives.

For the Kielder Transfer, although a potential for cumulative impacts on biological, hydromorphological, and physico-chemical elements was initially identified, the action operates within existing licences and the established transfer system. Changes to flows are generally small and remain within the range of normal system operation, limiting the potential for cumulative deterioration.

For the Burnhope Reservoir action, impacts are localised and short-term, primarily affecting upstream and nearby river reaches. The operational approach (reduced compensation flows offset by downstream releases) restricts spatial extent and prevents wider cumulative effects. Groundwater bodies are not sensitive due to their dependence on longer-term recharge processes.

For Bleak Ridge, potential cumulative risks relate to groundwater abstraction (e.g. drawdown, baseflow reduction, and effects on connected ecosystems). However, these risks are controlled through licence limits, monitoring, and adaptive management, and are

⁶³ Northumbrian Water (NW) (2026) NW Drought Plan 2027 Water Framework Directive (WFD) Report – Kielder Transfer Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-TW-0009

⁶⁴ Northumbrian Water (NW) (2026) NW Drought Plan 2027 Water Framework Directive (WFD) Report – Burnhope Reservoir Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-TW-0007

⁶⁵ Northumbrian Water (NW) (2026) NW Drought Plan 2027 Water Framework Directive (WFD) Report – Bleak Ridge Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-TW-0006

limited to the specific groundwater system rather than interacting more broadly across catchments

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
- DWMPs
 - Our DWMP
 - Other water companies' DWMPs
- Other plans and projects
 - Water Resource North Regional Plan
 - Northumbria RBD and Solway Tweed RBD
 - 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:

- United Utilities: Border our supply area in the west
- Hartlepool Water (Anglian Water): Located in the south-eastern part of our supply area
- Yorkshire Water: Border our supply area in the south.

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.

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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 all other companies become available for review.

United Utilities' supply-side measures include the use of reservoir dead water, increasing the usual outputs of certain sources and tightening control on compensation flow releases from their reservoirs⁶⁶. None of these measures interact with those included in our Drought Plan. These measures are not located within shared catchments or hydrological pathways with our drought actions and therefore do not affect the same receptors. Therefore, it is unlikely there will be any pathways for cumulative effects between the two Drought Plans.

Anglian Water's (including also the Hartlepool region) supply-side measures focus on maintaining or increasing water available for supply as drought conditions progress, with actions escalating in severity as the drought intensifies⁶⁷. None of the supply-side measures are located geographically close to any of our drought actions or within the same hydrological systems, and therefore do not interact with the same environmental receptors and therefore, it is unlikely there will be any pathways for cumulative effects between the two Drought Plans.

Yorkshire Water's supply-side measures to maintain supply focus on:

- Maximise available resources through use of alternative supplies / underutilised licensed resources
- Raw water tankering
- Reduce compensation flows
- Increase existing abstraction volumes or utilise new abstractions
- Install new assets or infrastructure to make use of existing licenced resources
- Install new assets or infrastructure to make use of new supplies
- Overland pipes to make temporary network connections to any areas where local supplies are limited⁶⁸

None of these measures interact with those included in our Drought Plan. While some activities (such as tankering) may give rise to effects on similar receptor types (i.e. transport networks), they are undertaken in separate catchments or locations with no direct interaction with our drought actions. Therefore, no pathways for cumulative effects on shared receptors have been identified.

⁶⁶ United Utilities (2026). Draft Drought Plan 2027. Available at: <https://www.unitedutilities.com/corporate/about-us/our-future-plans/water-resources/drought-plan/> [Accessed May 2026].

⁶⁷ Anglian Water (2022). Final Drought Plan 2022. Available at: <https://www.anglianwater.co.uk/siteassets/household/about-us/aws-drought-plan-2022.pdf> [Accessed May 2026].

⁶⁸ Yorkshire Water (2022). Drought Plan 2022. Available at: https://www.yorkshirewater.com/media/ny5nq2vk/yorkshire-water_drought-plan-2022_final_public-april-2022.pdf [Accessed May 2026].

7.4.2 Water Resource Management Plans

NW 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 only one supply-side option, Supplying Teesside Industrial Water. This option involves reinstating the Blackwell abstraction licence back to pre-2016 volumes (58,075 MI/yr, 159 MI/d), along with installing Eel regulation-compliant screens at the Low Worsall intake and increasing the Low Worsall abstraction licence to 170 MI/d, with an annual limit of 62,000 MI (170*365days)⁶⁹.

This option is linked to existing operations within the Kielder WRZ, which serves the Teesside industrial area. Under the Drought Plan, the Teesside industrial supply is part of the baseline system and continues unchanged regardless of drought conditions, with water abstracted from the River Tees to supply large industrial users. As this activity is not triggered or modified as a drought action, it does not interact cumulatively with drought actions implemented during drought conditions. On this basis, we do not anticipate any adverse cumulative effects between WRMP24 and the Drought Plan.

We have, however, identified the potential for a beneficial cumulative effect in relation to demand management. Demand side actions within the Drought Plan, such as water efficiency initiatives and leakage reduction, are expected to complement our WRMP24 measures, including active leakage control, smart metering, and wider water efficiency programmes. Together, these measures support a coordinated approach to demand management and contribute to achieving national targets for reducing leakage and improving water use efficiency.

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 over the timeframe considered by this plan.

Yorkshire Water's WRMP24⁷⁰ includes a Kielder-supported transfer from our supply area into Yorkshire via the River Tees. This scheme is intended to offset the loss of other sources of supply in Yorkshire, including sustainability reductions on the River Derwent. However, this scheme has an indicative implementation date of around 2040 and therefore does not give rise to any cumulative effects with this Drought Plan. Further details are provided in Section 7.5.4 Strategic Resource Options on potential iteration of this scheme to future iteration of our Drought Plan.

⁶⁹ Northumbrian Water(2024). Water Resources Management Plan. Environmental Report – Appendix F, Available at: <https://www.nwg.co.uk/responsibility/environment/wrmp/wrmp-2025-2030/> [Accessed April 2026]

⁷⁰ Yorkshire Water (2024). *Yorkshire Water WRMP24 Technical Document*. Available at: <https://www.yorkshirewater.com/media/gk4pwpjh/yorkshire-water-final-wrmp24-technical-document-public.pdf> [Accessed May 2026].

7.4.3 Drainage and Wastewater Management Plans

Our DWMP covers seven strategic planning areas, broadly aligned with river basin catchments and the main urban centres in the region. Assessments have been undertaken to identify the interventions required to ensure wastewater treatment works operate in compliance with permit requirements for dry weather flow and treated effluent quality.

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, wastewater systems. While drought conditions and associated actions can influence flows in receiving waters, potentially reducing dilution of treated effluent, the Drought Plan measures are designed to operate within environmental constraints and regulatory controls to avoid significant deterioration in water quality.

The DWMP has been developed to accommodate future growth and environmental pressures through a structured programme of assessment and investment. Given the limited interaction between Drought Plan measures and wastewater systems, and the controls in place to manage changes in river flows, no significant cumulative effects are anticipated between the two plans.

The same principle applies to the DWMPs of neighbouring water companies. In addition, as none of the drought actions are geographically proximate to interventions related to wastewater generation, sewerage capacity, or drainage infrastructure, and any flow-related effects are managed within regulatory limits, it is unlikely that cumulative effects would arise between these DWMPs and our Drought Plan actions.

7.5 Other Plans and Projects

7.5.1 Water Resource North Regional Plan

The WReN Final Regional Plan was published in June 2025⁷¹. WReN comprises the three water companies operating in the North East of England (Yorkshire Water, Northumbrian Water, and Hartlepool Water) and is developing a regional plan to support sustainable growth across Yorkshire, the Humber, and the North East, while protecting and enhancing the natural environment.

Historically, the region has been considered to have a surplus of water resources. Smaller WRZs, including Berwick, Hartlepool and Yorkshire East, are projected to remain in surplus between 2025 and 2050. However, increased demand, updated climate change projections, and the introduction of a more stringent drought resilience standard are placing additional pressures on the Kielder and Yorkshire Grid zones.

To address projected deficits of over 300 MI/d by 2050, the WReN plan includes a strong focus on demand management. This includes reducing leakage by 50%, rolling out smart metering, and implementing water efficiency measures to reduce per capita consumption

⁷¹ Water Resources North (2025). *Water Resources North Final Regional Plan*. Available at: https://www.waterresourcesnorth.org/globalassets/water-resources-north/final-plan-pdfs-june-2025/wren-frp-2022--main-report-final_v2.pdf [Accessed May 2026].

to 110 litres per person per day. Government support is also identified as necessary, for example through the introduction of water efficiency labelling for appliances. For us, these demand management measures are sufficient to address deficits in the Kielder WRZ, resulting in a robust supply–demand surplus, even under stress testing scenarios.

From a cumulative effects perspective, we have considered the WReN Plan in terms of spatial overlap, temporal alignment and functional interaction with our Drought Plan. Supply-side interventions within WReN are primarily required to address deficits in the Yorkshire Grid WRZ rather than within our supply area. The only notable interaction is Yorkshire Water’s WRMP24 Kielder-supported transfer from our supply area into Yorkshire via the River Tees. This scheme is intended to offset the loss of other sources of supply in Yorkshire, including sustainability reductions on the River Derwent. However, this scheme is not expected to be implemented until approximately 2040 and therefore falls outside the timeframe of our Drought Plan. As such, there is no temporal overlap, and no pathway for cumulative effects during the plan period. We therefore conclude that there are no likely significant adverse cumulative effects, taking into account the absence of spatial overlap and limited functional interaction.

Supply-side options within WReN are primarily required to address deficits in the Yorkshire Grid zone rather than within our supply area. Yorkshire Grid zone includes a Kielder-supported transfer from our supply area via the River Tees to South Yorkshire. However, this scheme has an indicative implementation date of around 2040 and therefore does not give rise to any cumulative adverse effects with this Drought Plan. Further details are provided in Section 7.5.4 Strategic Resource Options on potential iteration of this scheme to future iteration of our Drought Plan.

Conversely, we identify the potential for beneficial cumulative effects arising from demand management. Our Drought Plan demand-side actions act in combination with WReN measures to reduce overall water demand and abstraction pressures across the region. These include active leakage control, smart metering and water efficiency programmes supported by in-home interventions and digital engagement. Together, these aligned measures contribute to a reduction in baseline and drought-related environmental pressures, including impacts on flows, water quality and ecological status.

7.5.2 River Basin Management Plans

Northumbria River Basin District

An assessment has been undertaken of the potential for cumulative effects arising from our demand and supply-side actions with measures listed in the Northumbria RBD. The Northumbria RBD 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 Northumbria RBMP concluded that the risk of significant in-combination effects on Habitat Sites from other plans is low, as the RBMP’s objectives and actions are focused on improving water body status and supporting the achievement of favourable conservation status for water-dependent Habitat Site features. While interactions with

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other strategic plans, such as our Drought Plan, may have the potential to constrain the implementation of certain RBMP objectives, they may also present opportunities to support and co-deliver actions identified within Site Improvement Plans. This includes measures such as investigating and addressing hydrological impacts and other pressures affecting SACs, thereby contributing to the achievement of favourable conservation status for water-dependent qualifying features⁷².

Solway Tweed River Basin District

A similar assessment undertaken for Northumbria RBD has also been carried out for the Solway Tweed RBD to identify any potential cumulative effects arising from interactions between our demand and supply-side drought actions and the measures set out in the Solway Tweed RBMP.

The HRA for the Solway Tweed RBD⁷³ concluded that the plan itself is unlikely to result in significant adverse effects on any Habitat Sites. When considered in combination with our Drought Plan, the RBMP measures, primarily aimed at improving water quality, hydromorphology and ecological status, are expected to complement drought management actions. As such, the interaction between the two plans is likely to result in beneficial effects, supporting the protection and enhancement of Habitat Sites and contributing to the achievement of favourable conservation status for water-dependent qualifying features.

7.5.3 Nationally Significant Infrastructure Projects

A total of 71 NSIPs listed on the National Infrastructure Planning website⁷⁴ were reviewed to determine whether they fall within our Drought Plan SEA study area. Of these, 15 projects were identified as being located within the study area. These projects were subsequently assessed to identify any potential cumulative effects with the demand and supply side actions set out in our Drought Plan.

In addition, NSIPs within the Yorkshire and Humber area were reviewed to identify any projects located near the boundary of the SEA study area and to assess potential pathways for cumulative effects. No NSIPs were identified in close proximity to our study area boundary, and therefore no cumulative effects are anticipated from this region.

Within the North East, 13 of the 15 identified NSIPs were screened out of detailed consideration due to the nature of the proposed works, which include primarily transport and energy infrastructure. These projects are not expected to result in significant water

⁷²Environment Agency (2022). River basin management plan for the Northumbria River Basin District, Habitats Regulations Assessment. Available at: [River basin management plan for the Northumbria River Basin District HRA](#) [Accessed May 2026].

⁷³Environment Agency, Scottish Environment Protection Agency (2021). River Basin Management Plan for the Solway Tweed River Basin District: Habitats Regulations Assessment (2021–2027). Available at: https://www.sepa.org.uk/media/37531/rbmp_solwaytweed_habitats-regulations-assessment.pdf [Accessed May 2026]

⁷⁴Planning Inspectorate. Find a National Infrastructure Project. Available at: <https://national-infrastructure-consenting.planninginspectorate.gov.uk/project-search> [Accessed February 2026].

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demand during operation, and construction-related water use would be temporary. As such, no cumulative effects with Drought Plan actions are anticipated.

Three NSIPs were identified for more detailed review due to their potential reliance on water supply infrastructure:

- H2NorthEast
- Lighthouse Green Fuels
- The Net Zero Teesside

The H2NorthEast project is a carbon capture and storage-enabled hydrogen production facility currently at the pre-application stage, with submission anticipated in February 2027. Based on publicly available information, the development includes water supply and treatment infrastructure; however, no detailed information on water demand or supply arrangements is currently available. As such, the potential for cumulative effects cannot be determined at this stage. Further assessment will be required as additional information becomes available through the planning process.

The Lighthouse Green Fuels project, also at pre-application stage (submission expected mid-2026), is proposed as a sustainable aviation fuel facility⁷⁵. The Environmental Scoping Report indicates that both raw and potable water would be supplied via existing NW's infrastructure. However, insufficient detail on water demand is currently available to assess cumulative effects. This should be revisited at later design and planning stages once water demand and infrastructure requirements are confirmed

The Net Zero Teesside project, authorised in February 2024, has progressed further in development. A Statement of Common Ground between the project promoters and our company confirms that estimated raw and potable water demand can be accommodated within existing network capacity, subject to ongoing infrastructure investigations. Engagement with the project is ongoing, and water demand during operation is not expected to exceed available supply. Decommissioning water demand is anticipated to be lower than operational requirements. On this basis, no cumulative effects are expected to arise between this project and the Drought Plan⁷⁶.

Overall, taking into account the nature, location and available information for the identified NSIPs, no significant cumulative effects are anticipated between the drought actions and the NSIPs within or near the SEA study area. However, it is recognised that some NSIPs have the potential to increase future water demand, which could contribute to cumulative pressures on water resources alongside drought conditions. At present, the scale and significance of these potential effects remain uncertain due to limited available information for projects at the pre-application or early design stage.

⁷⁵ Lighthouse Green Fuels (2025), Lighthouse Green Fuels Development Consent Order Environmental Scoping Report. Available at: [EN0110025-000007-EN0110025 Lighthouse Green Fuels Project Scoping Report.pdf](#) [Accessed May 2026].

⁷⁶ NZT Power Ltd & NZNS Storage Ltd (2022). Statement of Common Ground with Northumbrian Water Ltd. Available at: [DocumentNZT DCO - NWL SoCG Deadline 1 Revision compared with NZT DCO - NWL SoCG - NZT amends D4 Submission 7.7.22](#) [Accessed May 2026].

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As further project-specific information becomes available through the planning and design process, the cumulative effects assessment will be reviewed, where relevant, as part of the finalisation of the Drought Plan to ensure any potential interactions are appropriately identified and addressed. Following publication of the final Drought Plan, new information will be considered through the WRMP process and the preparation of subsequent Drought Plans, including in relation to cumulative effects with NSIPs.

7.5.4 Strategic Resource Options

Our desk study focused on the SROs proposed by neighbouring water companies.

United Utilities

United Utilities has proposed two SROs within its WRMP24: the Severn to Thames Transfer and the North West Transfer. Neither of these is located within, or in close proximity to, our SEA study area. As such, there are no credible pathways for interaction, and no cumulative effects are anticipated.

Hartlepool Water (Anglian Water)

Hartlepool Water (Anglian Water) does not promote any standalone SROs within its WRMP24. Long-term supply resilience in this area is instead supported through regional, transfer-based SROs led by NW. Therefore, no cumulative effects are anticipated.

Yorkshire Water

Yorkshire Water's WRMP24⁷⁷ identifies a number of SROs, including inter-company transfer scheme comprising the Kielder-supported transfer from our supply area via the River Tees, together with associated options to develop new supplies for the South Yorkshire area. This SRO is currently at an early stage of development and are not yet constructed or operational.

The inter-company transfer to Yorkshire Water is also the subject of our AMP8 WINEP investigation, while Yorkshire Water is undertaking an AMP8 investigation into the sustainability of its abstraction licence on the River Derwent. The Kielder SRO is being developed as a long-term, joint strategic scheme between us, United Utilities and Yorkshire Water, with a current indicative implementation date of around 2040. This lies beyond the timeframe of the current WRMP, WINEP and Drought Plan cycles.

There is potential for geographic and functional overlap between emerging Kielder SRO and drought actions identified in our Drought Plan (e.g. the Kielder Transfer). However, the majority of our Drought Plan actions relate to the short-term operation of existing assets and abstraction licences within their current operational conditions, whereas the SRO

⁷⁷ Yorkshire Water (2024). *Yorkshire Water WRMP24 Technical Document*. Available at: <https://www.yorkshirewater.com/media/gk4pwpjh/yorkshire-water-final-wrmp24-technical-document-public.pdf> [Accessed May 2026].

represents a longer-term strategic intervention requiring new infrastructure and future abstraction regimes.

At this stage, there is insufficient detail on the design, operation, and timing of the SROs to enable a robust cumulative effects assessment. Nevertheless, there is potential for cumulative interactions, although the magnitude and significance of such effects remain uncertain. As these SROs progress through further design, environmental assessment, and consenting, they will need to take account of our Drought Plan, where relevant, to ensure that any potential interactions are appropriately identified and managed.

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, 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). See Chapter 5 for assessment methodology.

In undertaking these assessments, for both demand-side and supply-side actions, 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 actions^{78, 79, 80, 81 & 82} 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 Guidance⁸³, 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 existing 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 supply-side actions that do not require new drought permits and would operate within 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 EARs, SEA environmental assessments and SEA process include:

- Adaptive operational response, including adjustment of the drought action only if required and in agreement with the Environment Agency
- Appropriate specification and installation of devices

⁷⁸ Northumbrian Water (2026). Bleak Ridge Drought Action Environmental Assessment Report (EAR). [Unpublished]. Available on request.

⁷⁹ Northumbrian Water (2026). Burnhope Reservoir Drought Action Environmental Assessment Report (EAR). [Unpublished]. Available on request.

⁸⁰ Northumbrian Water (2026). Derwent Reservoir Drought Action Environmental Assessment Report (EAR). [Unpublished]. Available on request.

⁸¹ Northumbrian Water (2026). Kielder Transfer Drought Operation Environmental Assessment Report (EAR). [Unpublished]. Available on request.

⁸² Northumbrian Water (2026). Fontburn Transfer Drought Operation Environmental Assessment Report (EAR). [Unpublished]. Available on request.

⁸³ 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].

- 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
- Customer guidance on correct use and maintenance
- Extensive consultation in relation to the implementation of water restrictions and bans on use
- Further consultation and liaison with the Environment Agency (and Natural England where relevant)
- Modifications to operating regimes of water level management or flood risk management structures, where appropriate, to help ensure that river flows are maintained
- Monitoring of demand response to assess effectiveness
- Monitoring of uptake and water savings to confirm effectiveness
- Periodic review of education outcomes to refine messaging
- Post-drought monitoring to confirm recovery of groundwater levels and environmental receptors to baseline conditions or within natural variability
- Precautionary contingency water quality monitoring and targeted flushing to be implemented if deterioration in water quality, regulatory non-compliance, or customer health impacts are detected during the temporary suspension of proactive flushing
- Provision of adequate treatment of any water which is to be transferred between catchments
- Provision of adequate treatment of effluent prior to its reintroduction to any surface water bodies
- Targeted and inclusive communication to avoid disproportionate impacts on vulnerable groups
- Targeted enhancement of groundwater, water-quality or ecological monitoring where required to reduce uncertainty and support adaptive management
- 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)⁸⁴ should be implemented as appropriate.

8.1.1 Demand-side drought 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

⁸⁴ 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]

restrictions⁸⁵. This code sets out the statutory and universal exemptions applied by all companies when implementing TUBs and drought orders/permits. 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 actions⁸⁶ 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.

Detailed information regarding TUBs is provided in Appendices 15 to 17 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 drought actions

For most of the supply-side actions, including Bleak Ridge, Burnhope Reservoir, Derwent Reservoir, Fontburn Reservoir and the Kielder Transfer, the assessment concludes that additional mitigation is required beyond the measures described above.

⁸⁵ 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.

⁸⁶ UKWIR (2023) Review of the 2022 Drought demand management measures, Summary Report. Available at: <https://ukwir.org/review-of-2022-drought-demand-management-measures-summary-report> [Accessed March 2026]

The key conclusions and measures from the EARs are summarised below:

- Bleak Ridge: Assessment identifies predominantly Low, short-term, and fully reversible environmental impacts. Mitigation focuses on early warning monitoring and adaptive management, reflecting the limited number of receptors and impact pathways identified.
- Burnhope Reservoir: Impacts are assessed as Minor to Moderate, short-term, and reversible. A comprehensive mitigation and monitoring framework, including early withdrawal triggers linked to ecological thresholds, provides robust safeguards while maintaining water supply resilience.
- Derwent Reservoir: The assessment concluded that all predicted effects are temporary, reversible and within the range of natural variability associated with drought conditions. The assessment also demonstrates that the temporary suspension of environmental spate releases can be implemented during exceptional drought conditions without causing permanent environmental harm, provided that the adaptive management measures are implemented.
- Fontburn Reservoir: Impacts are short-term, localised, and reversible, with no permanent harm expected, provided that adaptive management measures are applied
- Kielder Transfer: The assessment concludes that the Kielder Transfer drought action will not result in significant adverse environmental effects. Given the limited magnitude and temporary nature of predicted effects, no specific mitigation measures are required.

Further details on the drought action specific additional mitigation measures are provided in Table 8.1 to Table 8.5, including relevant receptors, mitigation actions, timing, responsible parties, and the criteria for assessing effectiveness. Most measures are implemented during drought conditions, either triggered immediately or subject to ongoing review.

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.

Based on the EARs^{87, 88, 89, 90 & 91}, all mitigation measures are structured as pre-drought (preparatory actions), in-drought (active interventions during implementation), and post-drought (recovery support). These measures are designed to avoid, reduce, or, where necessary, compensate for identified impacts.

⁸⁷ Northumbrian Water (2026). Bleak Ridge Drought Action Environmental Assessment Report (EAR). [Unpublished]. Available on request.

⁸⁸ Northumbrian Water (2026). Burnhope Reservoir Drought Action Environmental Assessment Report (EAR). [Unpublished]. Available on request.

⁸⁹ Northumbrian Water (2026). Derwent Reservoir Drought Action Environmental Assessment Report (EAR). [Unpublished]. Available on request.

⁹⁰ Northumbrian Water (2026). Kielder Transfer Drought Operation Environmental Assessment Report (EAR). [Unpublished]. Available on request.

⁹¹ Northumbrian Water (2026). Fontburn Transfer Drought Operation Environmental Assessment Report (EAR). [Unpublished]. Available on request.

Bleak Ridge

Table 8.1 Bleak Ridge mitigation measures⁹²

Receptor	Mitigation Measure	Timing	Responsible Party	Effectiveness Assessment
All ecological receptors	Adaptive Management Framework: Implement early withdrawal protocol with staged abstraction reduction (from 3.0 to 1.55MI/d) if environmental monitoring indicates ecological stress. Full withdrawal to WFD no deterioration cap (1.55MI/d) within 48 hours if severe triggers breached.	In-drought (immediate implementation upon trigger breach)	NW Drought Management Group (DMG) (decision); NW Operations Team (implementation)	Groundwater levels and habitat condition stabilise or begin recovery within 2-4 weeks of abstraction reduction. No further deterioration post-withdrawal. Prevents accumulation of irreversible impacts.
Water Quality (Till Fell Sandstone Groundwater Body)	Liaison with Environment Agency: Share monthly groundwater quality data with Environment Agency during and post-drought. Request notification of any pollution incidents or consented discharges within Till Fell Sandstone catchment during drought period to distinguish drought action effects from external pollution sources.	In-drought (ongoing liaison) / post-drought (data sharing for six months)	NW Environmental Team / NW Laboratory Team	Any changes in groundwater quality at Bleak Ridge can be reliably attributed to sources (agricultural pollution, other abstractions, natural recharge changes) rather than assumed to be drought action effects. Contextualises monitoring data and enables coordinated response if pollution occurs.

⁹² Northumbrian Water (2026). Bleak Ridge Drought Action Environmental Assessment Report (EAR). [Unpublished]. Available on request.

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Burnhope Reservoir

Table 8.2 Burnhope Reservoir mitigation measures⁹³

Receptor	Mitigation Measure	Timing	Responsible Party	Effectiveness Assessment
All ecological receptors	Avoid critical ecological periods (salmonid spawning Nov-Jan, fry emergence Mar-May, otter breeding, angling events)	Pre-drought	NW DMG and Environment Agency	Implementation outside sensitive periods confirmed
Water Quality	Freshets – controlled releases from Burnhope Reservoir (minimum 1.5× reduced compensation flow for 12-24 hours) to improve water quality	In-drought	NW Operations	Dissolved Oxygen (DO) restored to >7 mg/l within 72 hours
Water Quality	Emergency river aeration (portable diffuser systems)	In-drought	NW Operations	DO restored to >7mg/l within 72 hours
Water Quality	Early withdrawal of drought action	In-drought	NW DMG and Environment Agency	Water quality recovers within one week
Fish (all species)	Fish rescue and relocation	In-drought	NW Ecologist and Environment Agency	Reduced sightings of fish in distress
Fish (salmonids)	Freshets – controlled releases from Burnhope Reservoir (minimum 1.5× compensation flow for 12-24 hours) to stimulate upstream migration and flush fine sediment from spawning gravels	In-drought (September-November adult migration period; April-May if sediment accumulation detected)	NW Ecologist and Environment Agency Fisheries	Migration delays reduced; adult fish passage observed within 48 hours of freshet
Protected Rights	Lower/modify pumps/equipment (if possible) and/or provide alternative supply and/or provide financial compensation	Pre-drought	NW Water Resources and Environment Agency	Assess effectiveness through ongoing liaison with other abstractors
Recreation (angling)	Notify clubs ≥4 weeks advance, provide flow change information	Pre-drought	NW Communications	Stakeholder feedback confirms adequate notice

⁹³ Northumbrian Water (2026). Burnhope Reservoir Drought Action Environmental Assessment Report (EAR). [Unpublished]. Available on request.

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Receptor	Mitigation Measure	Timing	Responsible Party	Effectiveness Assessment
Recreation (water sports, walking, swimming)	Notify providers, publish information on website/local media	Pre-drought (≥4 weeks)	NW Communications	Information disseminated, public aware
Economic (tourism, businesses, agriculture)	Notify businesses/farmers ≥6 weeks advance	Pre-drought	NW Stakeholder Team	Businesses have time to plan

Derwent Reservoir

Table 8.3 Derwent Reservoir mitigation measures⁹⁴

Receptor	Mitigation Measure	Timing	Responsible Party	Effectiveness Assessment
All ecological receptors	Where reasonably practicable, considering water resource constraints, avoid implementation during known sensitive ecological periods (e.g. salmonid spawning November – January and early fry development in spring) through adaptive timing of drought action	Pre-drought	NW DMG and Environment Agency	Implementation outside sensitive periods confirmed
Water Quality	Consider targeted, short-duration flow releases (distinct from full spate flows) from Derwent Reservoir (for example up to approximately 1.5x compensation flow for 12–24 hours) where operationally feasible and subject to agreement with the Environment Agency, to support local flow and water quality conditions	In-drought	NW Operations	DO restored to >7mg/l within 72 hours
Water Quality	Deployment of temporary aeration measures (e.g. portable diffuser systems) where feasible to improve local DO conditions as a preferred first-line mitigation prior to considering additional releases	In-drought	NW Operations	DO restored to >7mg/l within 72 hours
Water Quality	Review followed by potential early withdrawal or modification of the drought action	In-drought	NW DMG and Environment Agency	Water quality recovers within one week

⁹⁴ Northumbrian Water (2026). Derwent Reservoir Drought Action Environmental Assessment Report (EAR). [Unpublished]. Available on request.

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Receptor	Mitigation Measure	Timing	Responsible Party	Effectiveness Assessment
Fish (all species)	Assess need for local habitat adjustments or fish rescue and relocation where fish become stranded or isolated in disconnected pools. Considered as a last resort measure in isolated locations where severe localised effects are observed	In-drought	NW Ecologist and Environment Agency Fisheries	Reduction in observed fish distress following intervention
Fish (salmonids)	Consider targeted, short-duration controlled flow releases (distinct from full spate flows) from Derwent Reservoir (for example up to approximately 1.5× compensation flow for 12–24 hours) where operationally feasible	In-drought (September–November adult migration period; April–May if sediment accumulation detected)	NW Ecologist and Environment Agency Fisheries	Migration delays reduced; adult fish passage observed within 48 hours of freshet
Geomorphology/ Habitat	Review flow management and consider targeted short-duration releases (distinct from full spate flows and where consistent with drought objectives) to mobilise deposited fine sediment where feasible	In-drought	NW Ecologist and Environment Agency Fisheries	Observations reduction in fine sediment deposition and evidence of sediment mobilisation relative to baseline photographic records

Fontburn Reservoir

Table 8.4 Fontburn Reservoir mitigation measures⁹⁵

Receptor	Mitigation Measure	Timing	Responsible Party	Effectiveness Assessment
All ecological receptors	Where practicable, avoid implementation during known sensitive ecological periods (e.g. salmonid spawning November – January and early fry development in spring) through adaptive timing of drought action	Pre-drought	NW DMG and Environment Agency	Implementation outside sensitive periods confirmed
Water Quality	Consider controlled releases (reintroduction of a proportion of the seasonal spate) from Fontburn Reservoir, where operationally feasible, to support local flow and water quality conditions	In-drought	NW Operations	DO restored to >7mg/l within 72 hours
Water Quality	Deployment of temporary aeration measures (e.g. portable diffuser systems) where feasible to improve local DO conditions	In-drought	NW Operations	DO restored to >7mg/l within 72 hours
Water Quality	Review and potential early withdrawal or modification of the drought action	In-drought	NW DMG and Environment Agency	Water quality recovers within one week
Fish (all species)	Assess need for local habitat adjustments or fish rescue and relocation where fish become stranded or isolated in disconnected pools	In-drought	NW Ecologist and Environment Agency Fisheries	Reduction in observed fish distress following intervention

⁹⁵Northumbrian Water (2026). Fontburn Transfer Drought Operation Environmental Assessment Report (EAR). [Unpublished]. Available on request.

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Receptor	Mitigation Measure	Timing	Responsible Party	Effectiveness Assessment
Fish (salmonids)	Consider reintroduction of a proportion of artificial spates from Reservoir (for example one out of the three summer spate flows) where operationally feasible	In-drought (September-November adult migration period; April-May if sediment accumulation detected)	NW Ecologist and Environment Agency Fisheries	Migration delays reduced; adult fish passage observed within 48 hours of freshet
Geomorphology/ Habitat	Review flow management and consider short-duration releases to mobilise deposited fine sediment where feasible	In-drought	NW Ecologist and Environment Agency Fisheries	Observations of sediment movement.

Kielder Transfer

Table 8.5 Kielder Transfer mitigation measures⁹⁶

Receptor	Mitigation Measure	Timing	Responsible Party	Effectiveness Assessment	Approvals Required
All ecological receptors	Operation in accordance with agreed trigger thresholds and adaptive management through the DMG	Pre- and in-drought	NW with Environment Agency oversight	Confirmation that flows and conditions remain within expected ranges and no deterioration from baseline	Environment Agency agreement through drought action process
Water quality (all parameters)	Increased monitoring and review of operational regime; adjustment only if required	In-drought	NW with Environment Agency oversight	Comparison with baseline and WFD thresholds; no deterioration in status	Environment Agency agreement if operational change required
Fish and aquatic ecology	Investigation and adaptive response if linked to drought action	In-drought	NW with Environment Agency	No observed impacts attributable to drought action	Environment Agency consultation if required
Designated sites	Site-specific review and consultation; adaptive management if required	In-drought	NW with Environment Agency/ Natural England	No adverse change to site condition	Consultation with Natural England if required
All receptors (post-drought)	Post-event review of monitoring data to confirm recovery to baseline conditions	Post-drought	NW with Environment Agency	Confirmation of recovery to baseline or within natural variability	Environment Agency review as part of reporting

⁹⁶Northumbrian Water (2026). Kielder Transfer Drought Operation Environmental Assessment Report (EAR). [Unpublished]. Available on request.

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 drought actions that would only be implemented if, and when, required, depending on drought conditions over the five-year lifetime of the Drought Plan. As a result, monitoring requirements and triggers will vary depending on the circumstances, and the actual impacts of the Drought Plan are therefore subject to some uncertainty.

Monitoring recommendations in the EARs 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. However, given that no adverse significant (moderate or greater) effects have been identified, SEA monitoring will instead focus on verifying that effects remain negligible and on identifying any unforeseen adverse effects at an early stage.

8.2.1 Demand-side drought 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, including monitoring the impacts of removing exemptions during severe drought on previously excluded or vulnerable customer groups
- **Water Usage Tracking:** Monitoring of daily demand to assess the effectiveness of communication campaigns, with goals often aimed at achieving specific MI/d or percentage reductions in peak demand.

8.2.2 Supply-side drought 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.

- **Groundwater levels** - groundwater levels in our pumped boreholes are automatically recorded every 15 minutes. Manual groundwater level measurements using a dip

meter are regularly taken. Additionally, we monitor groundwater levels in a number of monitoring boreholes as required under various abstraction licence conditions. We also monitor groundwater levels in a number of monitoring boreholes to support us in making calculations of aquifer properties and the sustainability of our abstractions.

- 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.
- Reservoir levels - reservoir levels in all our impounding reservoirs are either available by telemetry or are recorded three times a week during operator checks of the dam structures. During a drought the frequency of these manual readings would be increased to 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.
- Soil moisture deficit in our supply area - soil moisture deficit 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

Bleak Ridge

For the Bleak Ridge drought action, given the predicted low significance of impact and medium-to-low confidence of impacts on priority habitats at Bleak Ridge, the monitoring programme is focused and streamlined. Monitoring is undertaken only for receptors predicted to experience medium or high magnitude impacts, or where baseline confidence is low and early evidence is needed to ground-truth predictions. This approach avoids unnecessary monitoring burden while maintaining sufficient evidence to detect unexpected environmental stress and trigger adaptive management responses.

We would integrate existing datasets from regulators (such as the Environment Agency) and third parties (such as wildlife trusts) where available and would liaise regularly with these organisations to maintain data currency. Walkover surveys would be undertaken prior to drought action implementation to establish baseline conditions within the Zol.

Table 8.6 summarises the monitoring programme by receptor, parameter, frequency, responsible party and reporting arrangements.

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Table 8.6 Bleak Ridge Environmental Monitoring Plan

Receptor/ Parameter	Baseline Frequency	In-Drought Frequency		Post-Drought Frequency	Responsible Party	Reporting
		Pre-permit application	Post-implementation			
Till Fell Sandstone Groundwater Body/ Groundwater level (mAOD at Bleak Ridge; mbgl at Environment Agency's Observation Borehole (OBH))	Monthly for ≥12 months (ideally 24 months) at Environment Agency's OBH and control site. Bleak Ridge continuous (already operational)	As baseline	Weekly manual dips at Environment Agency's OBH (impact & control). Bleak Ridge continuous real-time review via Supervisory Control and Data Acquisition.	Monthly for 12 months at Environment Agency's OBH, final survey at 24 months. Bleak Ridge continuous for six months, then revert to operational.	NWG Water Resources	Monthly summary to DMG. If triggers breached, immediate notification to Environment Agency
Till Fell Sandstone Groundwater Body/ Water quality - Physico-chemical (Temperature °C, pH, Electrical Conductivity µS/cm, DO mg/l)	Continuous (already operational)	As baseline	Continuous real-time monitoring with automated alerts for anomalies.	Continuous for six months post-drought, then revert to operational monitoring.	NWG Water Resources	Monthly summary to DMG. If triggers breached, immediate notification to Environment Agency

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Receptor/ Parameter	Baseline Frequency	In-Drought Frequency		Post-Drought Frequency	Responsible Party	Reporting
		Pre-permit application	Post-implementation			
Till Fell Sandstone GWB/ Water quality - Chemical Determinands (Nitrate NO ₃ , Nitrite NO ₂ , Ammonium NH ₄ , Phosphate PO ₄ , major ions Ca Mg Na K Cl SO ₄ , trace metals Fe Mn As Pb)	Monthly for ≥12 months pre-drought (use existing National Environment System data Nov 2020- Nov 2025 as baseline). Establish baseline range and variability.	As baseline	Monthly (collected same visit as Environment Agency's OBH dipping where practicable).	Monthly for six months, then quarterly (revert to operational WFD compliance sampling).	NWG Water Resources	Monthly summary to DMG. If triggers breached, immediate notification to Environment Agency

Burnhope Reservoir

For Burnhope Reservoir drought action, the monitoring programme is precautionary and proportionate to the uncertainty associated with implementation during drought conditions. It is primarily designed to validate predicted minor and temporary effects, support adaptive management, and confirm recovery cessation of the drought action, rather than to identify significant environmental deterioration.

Given the limited magnitude of predicted impacts, a targeted approach has been adopted focusing on locations where modelled changes are greatest and receptors most sensitive. Monitoring would be undertaken before, during, and after implementation to verify that conditions remain within expected ranges, support management actions where required, and confirm recovery to baseline.

The monitoring programme objectives for Burnhope are to:

- Verify baseline conditions at key monitoring locations
- Confirm that predicted impacts during drought action remain within expected ranges
- Provide data to inform adaptive management if unexpected effects are observed
- Confirm recovery to baseline conditions following cessation of the drought action
- Support regulatory compliance, including WFD no deterioration requirements
- Inform future drought planning through improved understanding of system response.

Table 8.7 provides an overview of the recommended monitoring across pre-, during, and post-drought action implementation.

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Table 8.7 Burnhope Reservoir Environmental Monitoring Plan

Receptor/ Parameter	Baseline Frequency	In-Drought Frequency		Post-Drought Frequency	Responsible Party	Reporting
		Pre-permit application	Post-implementation			
Hydrology/ Reservoir level, compensation discharge, river flow at key sites	Continuous (ongoing Environment Agency monitoring)	Continuous	Continuous	Continuous for 12 months post-drought	NWG Operations and Environment Agency	Monthly summary to DMG, quarterly to Environment Agency
Hydrology (spot flows)/ River flow	N/A	Once, immediately before drought permit application.	Once, within two weeks of drought permit implementation, then review based on data collected to date and information from the walkovers	Once within two weeks of cessation of drought permit	NWG Operations and Environment Agency	Monthly summary to DMG, quarterly to Environment Agency
Water Quality - physico-chemical - walkovers/ Temperature, DO and pH	N/A	Once, immediately before drought permit application.	Weekly during drought permit implementation, alongside fish observations. Met Office weather forecasts will be checked on a weekly basis. Frequency of monitoring to be reviewed regularly with the Environment Agency	N/A	NWG Water Resources	Monthly summary to DMG. If triggers breached, immediate notification to Environment Agency

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Receptor/ Parameter	Baseline Frequency	In-Drought Frequency		Post-Drought Frequency	Responsible Party	Reporting
		Pre-permit application	Post-implementation			
Fish (observations) - walkovers/ Fish habitat surveys and redd counts	N/A	Once, immediately prior to drought permit implementation	Twice weekly for the first two weeks of drought permit implementation, then weekly thereafter. Frequency of monitoring to be reviewed regularly with the Environment Agency.	N/A	NWG Fisheries Ecologists	Bi-annual summary to Environment Agency. Immediate notification if trigger thresholds breached
Invertebrates/ Taxa richness, abundance, Whalley Hawkes Paisley Trigg (WHPT) score, Lotic Invertebrate Index for Flow Evaluation (LIFE), EPT richness and ASPT	Spring (Apr-May) and autumn (Sep-Oct) surveys for 12 months (ideally 24 months)	N/A	N/A	Spring and autumn surveys at six, 12, and 24 months post-drought	NWG Ecologist and accredited lab for ID	Bi-annual summary to Environment Agency. Annual comparison of WHPT/LIFE to WFD thresholds

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Receptor/ Parameter	Baseline Frequency	In-Drought Frequency		Post-Drought Frequency	Responsible Party	Reporting
		Pre-permit application	Post-implementation			
Macrophytes & Phytobenthos (diatoms)/ Macrophyte species, coverage (DAFOR scale, %). Diatom Trophic Diatom Index (TDI), species composition	Summer survey (Jul-Aug) for macrophytes. Spring and autumn for diatoms. Once in 12 months pre-drought (ideally Year 1). Baseline surveys once every five years.	N/A	N/A	Summer macrophyte survey. Diatoms: spring and autumn at six and 12-months post-drought	NWG Ecologist and accredited diatom lab	Annual summary to the Environment Agency. TDI scores reported alongside WFD classification

Derwent Reservoir

For Derwent Reservoir drought action, the monitoring programme sets out a proportionate and precautionary approach to monitoring environmental conditions before, during, and after drought action implementation. Monitoring data will support adaptive management of the drought action, informing decisions on mitigation measures or potential early withdrawal where environmental trigger thresholds are exceeded.

The monitoring programme objectives for Derwent Reservoir are to:

- Establish baseline environmental conditions for key receptors within the Zol prior to implementation of the drought action.
- Detect potential environmental changes during implementation of the drought action, distinguishing effects of the drought action from natural drought conditions where possible.
- Support adaptive management by providing information that may trigger mitigation measures or early review of the drought action where necessary.
- Assess environmental recovery following withdrawal of the drought action and confirm that conditions return towards baseline levels.
- Evaluate mitigation effectiveness, where mitigation measures are implemented during drought action operation.
- Provide evidence to support regulatory compliance, including Water Framework Directive objectives.
- Inform future drought planning, improving understanding of receptor sensitivity and supporting refinement of future environmental assessments.

Table 8.8 provides an overview of the recommended monitoring to be undertaken pre-drought, during drought and post-drought action implementation.

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Table 8.8 Derwent Reservoir Environmental Monitoring Plan

Receptor/ Parameter	Baseline Frequency	In-Drought Frequency		Post-Drought Frequency	Responsible Party	Reporting
		Pre-permit application	Post-implementation			
Water Quality - physico- chemical – walkovers/ Temperature, DO and pH	Once immediately prior to drought permit application	Once immediately prior to drought permit application	Monthly (aligned with walkovers)	Post-drought monitoring only required where trigger thresholds have been exceeded during drought implementati on	NWG Operations	Summary included in post-drought recovery report
Fish (observations) – walkovers/ Fish distribution, redd counts, habitat condition	Unknown	Once immediately prior to drought permit implementation	Monthly during drought implementation (frequency may be increased if environmental triggers approached)	Once following drought action cessation if required	NWG Fisheries Ecologists	Summary included in post-drought report; immediate notification to Environment Agency if trigger thresholds breached

Fontburn Reservoir

For the Fontburn Reservoir drought action, the monitoring programme provides a proportionate programme of verification monitoring to confirm that the predicted minor and temporary effects of the drought action occur as expected and that no unforeseen impacts arise.

The monitoring programme objectives are to:

- Verify baseline conditions at key monitoring locations.
- Confirm that predicted impacts during drought action implementation remain within expected ranges.
- Provide data to inform adaptive management if unexpected effects are observed.
- Confirm recovery to baseline conditions following cessation of the drought action.
- Support regulatory compliance, including WFD no deterioration requirements.
- Inform future drought planning through improved understanding of system response.

Table 8.10 provides an overview of all of the recommended monitoring to be undertaken pre-drought, during drought and post-drought action implementation.

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Table 8.9 Fontburn Reservoir Environmental Monitoring Plan

Receptor/ Parameter	Baseline Frequency	In-Drought Frequency		Post-Drought Frequency	Responsible Party	Reporting
		Pre-permit application	Post-implementation			
Water Quality - physico- chemical – walkovers/ Temperature, DO and pH	Spring (May) and autumn (Sep-Oct) habitat walkovers for 12 months (ideally 24 months)	Once immediately prior to drought permit application	Monthly during drought implementation (frequency may be increased if environmental triggers approached)	N/A	NWG Ecologist	Summary in post-drought monitoring report
Fish/ Redd surveys	Redd surveys winter (Nov- Feb) for two seasons	Once (Nov-Feb) unless recent baseline.	N/A	Redd surveys winters following drought (assess spawning recovery)	NWG Fisheries Ecologist or licensed contractor	Annual reports to Environment Agency
Fish/ Fish population structure (fry presence/ density where feasible)	Baseline survey where required to supplement existing Environment Agency datasets	Non-intrusive behavioural observations only during drought implementation (no electrofishing)	N/A	Every three years	NWG Fisheries Ecologists or licensed contractor	Summary included in post-drought recovery report

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Receptor/ Parameter	Baseline Frequency	In-Drought Frequency		Post-Drought Frequency	Responsible Party	Reporting
		Pre-permit application	Post-implementation			
Fish/ Fish, habitat condition, observational walkovers	N/A	Once immediately prior to drought permit implementation	Monthly during drought implementation (frequency may be increased if environmental triggers approached)	N/A	NWG Fisheries Ecologists or licensed contractor	Bi-annual summary to Environment Agency; immediate notification if trigger thresholds breached
Invertebrates/ Taxa richness, abundance, WHPT, LIFE index, EPT richness, ASPT	Spring and autumn surveys prior to drought action where feasible using available datasets	Spring and autumn surveys prior to drought action where feasible using available datasets	Additional sampling only if drought action persists >3 months or if ecological triggers indicate potential impacts	Spring and autumn surveys at six, 12-, and 24-months post-drought	NWG Ecologist and accredited lab for ID	Bi-annual summary to Environment Agency. Annual comparison of WHPT/LIFE to WFD thresholds
Phytobenthos (diatoms)/ Diatom species composition and cover. Diatom TDI, species composition	Use existing Environment Agency monitoring data where available; targeted survey if baseline gap identified	Use existing Environment Agency monitoring data where available; targeted survey if baseline gap identified	Not required during drought action	Optional verification survey at 12 months post- drought if ecological changes suspected	NWG Ecologist or licensed contractor	Summary in post-drought monitoring report

Kielder Transfer

For the Kielder Transfer drought action, the monitoring programme provides a proportionate programme of verification monitoring to confirm that the predicted minor and temporary effects of the drought action occur as expected and that no unforeseen impacts arise.

The monitoring programme objectives for Kielder Transfer are to:

- Verify baseline conditions at key monitoring locations.
- Confirm that predicted impacts during drought action remain within expected ranges.
- Provide data to inform adaptive management if unexpected effects are observed.
- Confirm recovery to baseline conditions following cessation of the drought action.
- Support regulatory compliance, including WFD no deterioration requirements.
- Inform future drought planning through improved understanding of system response.

Table 8.10 provides an overview of the recommended monitoring to be undertaken pre-drought, during drought and post-drought action implementation.

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Table 8.10 Kielder Transfer Environmental Monitoring Plan

Receptor/ Parameter	Baseline Frequency	In-Drought Frequency		Post-Drought Frequency	Responsible Party	Reporting
		Pre-permit application	Post-implementation			
Water Quality - physico- chemical – walkovers/ DO and Phosphate	N/A	Once, prior to drought action implementation	Quarterly for at least 12 months following implementation of initial drought action, with frequency reviewed in consultation with the Environment Agency	N/A	NW Water Resources	Summary reported to DMG during operation. Immediate notification to Environment Agency if trigger thresholds or unexpected deviations are observed
Fish (observations) – walkovers/ Fish presence, behaviour, signs of distress	N/A	Once, prior to drought action implementation	Weekly during initial drought action implementation, with increased frequency only if required and agreed with Environment Agency	N/A	NW Fisheries Ecologists	Summary reported following drought event or as agreed. Immediate notification to Environment Agency if fish distress or mortality observed
Macrophytes & Phytobenthos (diatoms)/ Species composition, coverage (DAFOR scale, %)	One survey prior to drought action (where available)	N/A	N/A	One survey during drought summer (if applicable) and one survey within 12 months post-drought	NW Ecologist and accredited diatom lab	Annual summary to Environment Agency, including EQR scores and WFD classification context

9 CONSULTATION AND NEXT STEPS

9.1 Consultation on the Environmental Report

This Environmental Report has been prepared considering the feedback received from statutory consultees during the Scoping Report consultation.

This SEA Environmental Report together with the separate HRA⁹⁷ and WFD^{98,99,100, 101 and 102} assessments, will be published for public consultation alongside our draft Drought Plan. The consultation period will run from 31 May 2026 to 13 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 version of the SEA Environmental Report will then be issued for the next stage of the Drought Plan process, alongside the SEA Statement (Post-Adoption Statement) and our Statement of Response, which will document how consultation comments have been taken into account.

9.2 Next Steps

Following adoption of our Drought Plan, the SEA Statement (Post-Adoption Statement) and the Statement of Response will be produced. These will outline how our SEA process has influenced the development of our Drought Plan, how consultation comments have been 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.

Consultation comments received on the SEA Environmental Report will be reviewed and incorporated through the SEA process, informing the refinement of policies, options, and mitigation measures where appropriate. This may include revisiting the assessment of effects, strengthening mitigation, or amending preferred options to better address environmental concerns. The SEA therefore provides a structured mechanism to ensure that consultation feedback is transparently considered and integrated into decision-making.

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

⁹⁷ Northumbrian Water (NW) (2025). NW Drought Plan 2027 Habitats Regulations Assessment Screening Report. WN025_0000-JAC-ZZ-ZZ_000-DOC-TE-0001.

⁹⁸ Northumbrian Water (NW) (2025). NW Drought Plan 2027 Strategic Water Framework Directive (WFD) Report. WN025_0000-JAC-ZZ-ZZ_000-DOC-TW-0001.

⁹⁹ Northumbrian Water (NW) (2026). NW Drought Plan 2027 Stage 2 Water Framework Directive (WFD) Report – Bleak Ridge Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-W-0006.

¹⁰⁰ Northumbrian Water (NW) (2026). NW Drought Plan 2027 Stage 2 Water Framework Directive (WFD) Report – Burnhope Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-W-0007.

¹⁰¹ Northumbrian Water (NW) (2026). NW Drought Plan 2027 Stage 2 Water Framework Directive (WFD) Report – Derwent Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-W-0008.

¹⁰² Northumbrian Water (NW) (2026). NW Drought Plan 2027 Stage 2 Water Framework Directive (WFD) Report – Kielder Transfer Drought Action. WN025_0000-JAC-ZZ-ZZ_000-DOC-W-0009.

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

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SEA stage	SEA task	Task purpose
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
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 Consultation Bodies 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 Directive states that the Consultation Bodies 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 adoption 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 draft 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
1	Environment Agency	Text states that the entire supply area lies within a single River Basin District (Northumbria). This is incorrect, Berwick and Fowberry WRZ lies within the Till and Tweed catchment which falls under the Solway Tweed RBD. Major - Moderate	Update the report to include this and associated figures. For example, there are 12 groundwater bodies within NE Area, 10 in Northumbria and 2 in Solway Tweed. Ensure SEA accounts for all relevant RBD's.	Section 5.2.2	Appendix D of the SEA Environmental Report updated to include Solway Tweed RBD. Number of groundwater bodies under each RBD provided in Table 1.3 of the appendix.
2 (Page 11-12)	Environment Agency	The study area is not clearly explained or defined on a plan; there is no mention of any cross-boundary effects being considered when establishing the study area. Results in uncertainty of geographical scope of the report and whether the study area extends beyond the supply area. The Scoping Report appears to be using the supply area as the study area, but this is not clearly stated, just referred to as 'the supply area contains...' when discussing the existing baseline conditions. 5.2 states the baseline geographical area covers the whole supply area but is not defined as the study area. Results in uncertainty of how the baseline for landscape, heritage, soil, air will evolve if the plan is not in place. Moderate	The study area should be confirmed on Figure 3.1 and explained in the text in section 3.1 page 11.	Figure 3.1	Study area is defined in the SEA Environmental Report, Section 4.1 and Appendix D and shown on Figure 4.1 and Figure 1.1.
3	Environment Agency	The evolution of the baseline in the absence of the plan should be provided as commentary for each baseline topic. The baseline information is provided along with commentary on the likely evolution of the baseline without the plan over the next 5 years as the lifetime of the plan. The baseline information provided is very brief in parts and could be expanded, e.g. air topic is only one paragraph. Note: the evolution of the baseline is only provided for some topic areas (climatic factors, biodiversity, material assets, water demand, population growth) not all. Section 8.1 states that the baseline information has informed the SEA objectives. Existing environmental problems such as INNS, water classification status etc have been provided. Moderate	Add text to section 5.2.12 to explain the evolution of the baseline without the plan for the remaining baseline topics. It should be considered whether this information should be placed into each baseline topic section to make it easier for the reader to follow the current baseline and then the evolution of the baseline for that topic.	Section 5 Baseline	Future baseline section is provided across all SEA Regulations topics within Appendix D of the SEA Environmental Report.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
4	Environment Agency	Table 6.1 In relation to the 'Biodiversity, Flora and Fauna' row, the implications column references examples of protected sites (e.g. Sites of Special Scientific Interest (SSSI)), examples of wildlife which could be adversely impacted by surface water or groundwater pollution are not referenced, for example white-clawed crayfish or water vole. The opportunities column does not include 'Enhance biodiversity' in addition to those already stated. Biosecurity risks, including invasive non-native species (INNS) are not included in the implications/opportunity's columns. Moderate	Reference examples of wildlife which could be adversely impacted by surface water or groundwater pollution. Include 'Enhance biodiversity' in the opportunity's column. Inclusion of biosecurity risks, including invasive non-native species (INNS) is a recommended addition to the implications/opportunity's columns.	Table 6.1	Examples of wildlife that could be adversely affected have been included in Table 4.2 of the SEA Environmental Report under the Biodiversity, Flora and Fauna topic. Additional potential risks have also been identified, including changes in flow and volume, changes in water chemistry, and the drying of habitats. In the Opportunities column, new bullet points have been added relating to biodiversity enhancement, management of biodiversity risks, and the protection and enhancement of wetlands and Groundwater Dependent Terrestrial Ecosystems (GWDTEs).
5	Environment Agency	Second paragraph of Section 7.1 Reference is made to HRA assessments but as these are in relation to SPAs/SACs and Ramsar sites, it is recommended that reference is made to assessments for SSSIs, including Natural England's Impact Risk Zones for SSSI's. This comment also applies for Sections 8.1, 8.1.3 and 9.1 Moderate	Update report as required.	Second paragraph of Section 7.1, Sections 8.1, 8.1.3 and 9.1	Reference to Natural England's Impact Risk Zones for Sites of SSSIs has been incorporated within the SEA Framework (Section 5.2) and included in Table 5.1 as a key information source under the Biodiversity, Flora and Fauna topic.
6	Environment Agency	In relation to the 'Water' row, Anglian River Basin District is mentioned in the Implications column. There does not appear to be any other reference to Anglian in the document. This is likely a cut and paste error and the report should be reviewed to ensure there are no other similar errors. This indicates that pollution is the primary issue whereas elsewhere in the report physical modifications are mentioned. High/low groundwater and mine water could also be a major concern in NE especially into surface waters as could significantly impact quality. We have seen this where groundwater remains high, but the rivers are lower therefore less dilution. Moderate	Remove reference to Anglian RBD, check all linked information is correct. Add consideration of water quality.	Table 6.1	Section 4.2 of the SEA Environmental Report has been updated to include references to only Northumbria and Solway Tweed RBDs. All linked information has been reviewed and verified throughout the report and appendices. In addition, the interaction between groundwater and mine water has been incorporated into the issues column of Table 4.2.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
7	Environment Agency	Information on the Kielder Transfer Scheme would benefit from referencing that there are other licences within the Kielder WRZ which are discussed in the Kielder Operating / control manual. They may not be part of the Kielder Transfer Scheme, but it is worth explicitly mentioning and distinguishing clearly that NWL have a series of licences within the Kielder WRZ which are discussed in the Kielder Operating/Control manual as these impact on the operations of this integrated Kielder Transfer Scheme network. Without this information the SEA is potentially less effective because while current environmental protections and controls are primarily embedded in licences, they are also detailed within the Kielder Operating Manual. If the SEA fails to recognise how the Operating Manual interacts with the Kielder Transfer Scheme, it overlooks essential mechanisms that safeguard the environment, leaving its description of the integrated network incomplete. Moderate	Reference that there are other licences within the Kielder WRZ which are discussed in the Kielder Operating / control manual and how these impact on the transfer scheme.	Section 3.2.1 Kielder Transfer Scheme	Public water supply abstraction licences utilising water from the Kielder Transfer Scheme have been incorporated into Section 4.3.1. The SEA recognises that environmental safeguards are embedded not only within abstraction licence conditions but also within the operational rules defined in the Kielder Operating/Control Manual, both of which collectively influence system operation and associated environmental outcomes.
8	Environment Agency	Through extended use of Kielder there is potential risk of over-regulating rivers. It is important to acknowledge this and how there is potential to influence flow regime. There is an ongoing project looking into these risks which should be incorporated into the assessment. Moderate	Ensure the SEA adequately explains and deals with risk of over- regulating flows. Throughout as applicable.	Throughout as applicable	Hydrological modelling undertaken for the Kielder Transfer Scheme drought action incorporates the cumulative effects of the six abstraction licences associated with the Kielder system, thereby capturing the integrated operational regime under drought conditions. The results of this assessment demonstrate that the proposed drought action does not result in alterations to river flow regimes when compared to baseline conditions ¹⁰³ . Consequently, the analysis indicates that there is no risk of adverse hydrological or environmental effects attributable to over-regulation of flows within the context of the Drought Plan. Wider system interactions and potential cumulative risks will be subject to further scrutiny through ongoing and forthcoming investigations, including the Kielder SRO and the AMP8 Water Industry National Environment Programme (WINEP) investigations. These initiatives will provide additional evidence to refine the understanding of system behaviour and ensure that any emerging risks associated with flow regulation are appropriately identified and managed.

¹⁰³ Northumbrian Water (2026). Kielder Transfer Drought Operation Environmental Assessment Report (EAR). [Unpublished]. Available on request.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
9	Environment Agency	It would be good to have a quantified amount of tankering that occurs under BAU vs during PDW or Drought Moderate Level 1 'Customer communications and behaviour changes' – does this refer to appeal for restraint. Keep wording consistent across all documents for clarity. Minor Level 1 Kielder WRZ action: Refers o road tankering from Whittle Dene WTW to services reservoirs to augment spring supplies at Allenheads and Carrshields WTW. Should this refer to Stonehaugh too? Minor Level 3a Kielder WRZ refers to reduction of compensation discharge from Burnhope Reservoir – indicate whether this relies on a drought permit (and note we expect the draft permit to be included and ready as part of the next plan) Minor	Ensure a draft Environmental Risk Assessment is in place well in advance of the Burnhope reservoir action being required. Update report with information as required.	Table 4.1	The quantified volumes of tankering under both BAU conditions and proposed drought action are presented within the NW Drought Plan. Drought actions relating to customer communications, including the wording associated with each drought level, have been reviewed and align with those set out in NW Drought Plan. Stonehaugh WTW is not included as part of the proposed drought action. The action is geographically targeted and would only be implemented if sources at Allenheads and Carrshields are identified as requiring additional support. The Burnhope Reservoir compensation reduction drought action at Level 3a will require a drought permit. It is noted that a draft permit should be prepared and included as part of the Drought Plan to ensure readiness.
10 (Page 52)	Environment Agency	Drainage & Wastewater Management Plans have not been considered. Page 52 cumulative effects states that Northumbrian Waters WRMP, SRO's, Regional Plans and neighbouring Drought Plans have been considered. Minor	Add relevant Drainage and Wastewater Management Plans to the PPP review and add to text on page 52.	Appendix A	Appendix C of the SEA Environmental Report has been updated to incorporate our Drainage and Wastewater Management Plan. Section 7.4.3 consider and reflect any potential cumulative effects associated with other water company Drainage and Wastewater Management Plans.
11	Environment Agency	Scoping is limited due to lack of construction. The first row makes reference to protecting biodiversity and habitat connectivity etc and whilst it is agreed that construction works aren't required for drought actions, and therefore row two isn't scoped in, it would be beneficial for enhancement opportunities (e.g. habitat creation or restoration) to be included in the table if possible, as during drought, protected species will be less impacted if habitats meet their needs (watercourses which retain pools, have deciduous tree cover and have stock fencing to keep out cattle for example, will provide more stable habitats for white- clawed crayfish during drought conditions). Minor	Consider inclusion of enhancement opportunities (e.g. habitat creation or restoration).	Table 7.1	In Table 5.1 of the SEA Environmental Report, an additional objective has been included: "To provide opportunities for habitat creation or restoration." A corresponding indicator question has also been added: "Does the action provide opportunities for habitat creation or restoration?"

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
12	Environment Agency	It is recommended that the Proposed SEA objectives for the Biodiversity, Flora and Fauna row includes 'enhance' biodiversity and habitat connectivity for example, in addition to 'protect' which is already included. Minor	Include 'enhance' biodiversity and habitat connectivity for example, in addition to 'protect'.	Table 7.2	In Table 5.1 of the SEA Environmental Report, the biodiversity, flora and fauna objective has been updated. The wording has been revised 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."
13	Environment Agency	The INNS section includes limited reference to biosecurity. Minor	We recommend the INNS section includes more detailed reference to biosecurity. For example, it may reference that a biosecurity protocol will be applied to all site equipment, vehicles and PPE prior to arrival on site and when leaving site, to limit the spread of harmful pathogens, live organisms, seeds or other plant material. The Check, Clean and Dry campaign should be followed; check your equipment and clothing for live organisms, particularly in areas that are damp or hard to inspect; clean and wash all equipment, footwear and clothing thoroughly. Dry all equipment and clothing for at least 48 hours. If the use of a disinfectant is required, it should be suitable for use on aquatic sites and should only be applied once items are free of soil and other debris. Further information on biosecurity can be found at the following link: https://www.nonnativespecies.org/what-can-i-do/check-clean-dry/ .	Section 8.1.3	Section 4.4 of the SEA Environmental Report has been updated to include detailed references to biosecurity, including INNS. The EAR for Burnhope Reservoir includes a mitigation measure requiring strict biosecurity protocols (Check, Clean, Dry) for all equipment, along with reference to biosecurity responsibilities within the EMP.
14	Environment Agency	The Kielder Transfer Scheme text notes that the scheme primarily serves the Central and Southern supply zones, while the North supply zone relies on direct river intakes at Barrasford and Ovingham. It would be beneficial to see this on a map. If added to figure 3-2 it would be useful to label the points referenced. Minor	Include on a map.	Section 3.2.1	Shown in Figure 4.3 of the SEA Environmental Report.
15	Environment Agency	The Wear operation Area Resource text states 'This integrated system enhances resilience and operational flexibility, particularly during periods of high demand or drought.' Although the Wear is generally resilient it doesn't feel like Burnhope reservoir is. It has been mentioned before that perhaps Burnhope and the isolated area downstream should be its own water resource zone. Minor	Consider whether Burnhope reservoir needs to be assessed differently due to experience of issues with a different level of resilience.	Section 3.2.3	The potential inclusion of additional WRZ, beyond the current Kielder and Berwick & Fowberry WRZs, would be considered as part of WRMP29. The Burnhope Reservoir compensation reduction drought action has been assessed within the Kielder WRZ.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
16	Environment Agency	It would be useful to contextualise how many people in area rely on NWL PWS and how many use private water supplies. Responses to both differ in drought - there are a substantial proportion of people using private water supply in rural Northumberland and Durham (circa 4000?) Minor	Add information on number of NWL customers and private water supplies if available.	Section 3.3	Information on the number of NWL customers is presented in Section 4.2 of the SEA Environmental Report.
17	Environment Agency	Climatic factors Source of data is unclear. Minor Text refers to number of sunshine hours - this may be a standard measure but could be good to add context here as to what this means. Minor	Include referencing as to where the data has come from, Environment Agency, Met office etc. Explain context of sunshine hours.	Section 5.2.5	Section 4 and Appendix D of the SEA Environmental Report have been updated to incorporate additional data references relating to climatic factors. Met office definition of sunshine records has been provided as a footnote.
18	Environment Agency	Source of data is unclear. Refers to 'East & North East region monthly rainfall chart'. Is this the combined rainfall data for Yorkshire and the North East (as in region which the national Environment Agency team call the North East)? Or is there some data for NWL's Essex and Suffolk area included? Minor	Clarify what areas East and North East covers.	Figure 5-1	North East regional boundary has been used to provide baseline data context where environmental data is only available at a broader spatial scale or where a larger-scale dataset is more appropriate.
19	Environment Agency	Future Baseline – Water demand and population growth text states that rising population is expected to increase demand for water. A graph of expected increases would be beneficial if available. Minor	Include a graph.	Section 5.2.12 Future Baseline	Graph not provided but a table presenting population projections from 2025/26 to 2029/30 is included in Appendix D of the SEA Environmental Report. This appendix also provides estimates of future industrial water demand for the Teesside Industrial Cluster up to 2030.
20	Environment Agency	Climatic factors row – text references potential for carbon emissions during drought action operation but no specifics are given. An example could be increased use of pumps participatory at Riding Mill (other locations also relevant). Minor	Include more specific information.	Table 6.1	Examples such as road tankering and increased operation of pumps have been added to the climatic factors row in Table 4.2 of the SEA Environmental Report. Where relevant, drought action specific carbon emission contributions are provided in Appendix F of the SEA Environmental Report.
21	Environment Agency	The percentage contributions do not total 100. Minor	Update or explain total.	Table 5.7	The water management issues table within Appendix D of the SEA Environmental Report has been updated to highlight the specific issues preventing water bodies from achieving good ecological condition per RBD, rather than presenting this information as percentages.
22	Environment Agency	North East England- The second paragraph states ' <i>and the region has a total population of 1.97M residents</i> '. This figure is different to that provided in Table 5.9, which includes the population in 2024/25 as 2.77M.	Clarify population figures.	Section 5, p.33	Population figures within Appendix D of the SEA Environmental Report have been revised and aligned with our WRMP24.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
23	Environment Agency	It is considered that 'internally' in the indicator questions column of the Biodiversity, Flora and Fauna row should read 'internationally'. The correction will also be needed in Table 8.1. Minor	Update report as required.	Table 7.2 / Table 8.1.	Typo errors within Section 4 (Table 4.2) and Section 5 (Table 5.1) of the SEA Environmental Report have been corrected.
24	Environment Agency	Legends don't always indicate all symbols used; legends differ between figures which isn't ideal. Minor	Ensure all symbols used are clear and consistency between legends as far as possible.	All figures (e.g. 3.2)	All figures within the SEA Environmental Report and Appendix D have been updated to ensure clarity in the use of symbols, and to maintain consistency across figure legends where possible.
Full SEA	Historic England	In terms of the historic environment, on the whole, we consider that the Report has identified the majority of plans and programmes which are of relevance to the development of the Drought Plan, that it has established an appropriate Baseline against which to assess the Plan's proposals and that it has put forward a suitable set of Objectives and Indicators. Overall, therefore, we believe that it provides the basis for the development of an appropriate framework for assessing the significant effects which this plan might have upon the historic environment.	No action required.	Full SEA document - Summary Statement	Noted; no action required.
Pg. 34	Historic England	We would recommend that the Historic environment baseline identifies the number, type and location of heritage assets that are at risk within the study area (i.e. those included on Historic England's Heritage at Risk Register and, where available, any local authority register) and highlights any risks/opportunities arising from proposals in the emerging Drought Plan. If relevant, this baseline position should subsequently be monitored.	See Column D.	Section 5.2.8 Historic Environment	The historic environment baseline in Appendix D of the SEA Environmental Report has been updated to include the number, type, and location of heritage assets at risk within our supply area. Potential impacts to historic environment arising from the proposed drought actions have been identified, where relevant, within Appendix F. Any associated mitigation measures are outlined in Chapter 8 of the SEA Environmental Report.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
Pg. 41	Historic England	We recommend that the wording of the second sentence under the Implications column of the table for the Historic Environment topic is amended as follows: "Drought actions proposed within the NW Drought Plan have the potential to effect heritage assets either directly, by affecting the fabric or structure of heritage assets, or indirectly, by altering their setting, context, or visual integrity." We would also recommend that the entry under the Opportunities column should be amended as follows: The drought actions within the NW Drought Plan should consider the historic environment and avoid or minimise adverse effects: Conserve or enhance archaeological and cultural heritage assets.	Apply the recommended amendments to the identified sections.	Table 6.1 Key issues and opportunities associated with each SEA Regulations topic	Historic Environment row in Table 4.2 of the SEA Environmental Report has been updated with suggested text.
Pg. 46	Historic England	We welcome the inclusion of the indicator question relating to whether actions will alter the hydrological conditions of water-dependent heritage assets, including organic remains.	See Column D.	Table 7.2 Assessment Criteria	Noted; no action required.
Pg. 57	Historic England	The section of Appendix A covering National policies, plans and programmes should include consideration of: Planning (Listed Buildings & Conservation Areas) Act 1990 Ancient Monuments & Archaeological Areas Act 1979 Marine and Coastal Access Act 2009 The section of Appendix A covering Regional and Local policies, plans and programmes should include consideration of relevant: Local Plans Marine Plans National Park/National Landscape Management Plans Heritage/Conservation Strategies Conservation Area Character Appraisals and Management Plans WHS Management Plans.	Include considerations listed in Column D.	Appendix A: Plans, Policies and Programmes	Appendix C of the SEA Environmental Report already include reference to the Marine and Coastal Access Act 2009. Other remaining relevant suggested policies, plans, and programmes have now been added.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
Full SEA	Natural England	The approach proposed by Northumbrian Water (NW) within the NW Drought Plan 2027 Strategic Environmental Assessment (SEA) Scoping Report appears appropriate overall and is in line with the relevant guidance.	No action required.	Full SEA document - Summary Statement	Noted; no action required.
Pg. 9	Natural England	In addition to 'Improve water quality so all waters achieve 'good status' or 'no deterioration' as set out in the Water Framework Directive, Natural England would suggest it is acknowledged that the equivalent of 'high status' is the target for some designated sites.	Acknowledge that 'high status' is the target for some designated sites.	Section 2.2. Identification of key themes and messages	In Section 3.3 of the SEA Environmental Report, the text has been revised to include the following statement: "For some designated sites, the target is, however, 'high status'."
Pg. 8	Natural England	We suggest that reference be made in Appendix A to Site of Special Scientific Interest (SSSI) Monitoring Specifications and for Special Conservation Areas (SACs) and Special Protection Areas (SPAs), European Site Conservation Objectives: Supplementary advice on conserving and restoring site features. We recognise use of Site Improvement Plans (SIPs) for European Sites (and Ramsar Sites where applicable) has been identified in the current scope. An EA/NE Diffuse Water Pollution Plan (DWPP) is in place for the Till and Tweed catchment in the Drought Plan area, this should be referenced and considered within the scope of the SEA. Natural England welcomes reference to the emerging Local Nature Recovery Strategies (LNRS), led by Local Authorities, across the plan area, which will be published during the Drought Plan's lifespan. LNRSs could also be covered in section 5.2.12 Future Baseline.	Make reference to Appendix A of SSSI Monitoring specifications. Make reference to SAC and SPA supplementary advice from: https://designatedsites.naturalengland.org.uk/SiteSearch.aspx . Make reference to Diffuse Water Pollution Plan for Till and Tweed catchment within the SEA. Welcome reference to Local Nature Recovery Strategies, could be referenced in section 5.2.12	Sections 2.1 Policies, Plans and Programmes Review / Section 5.2.12 Future Baseline	European Site Conservation Objectives (including Supplementary Advice on Conserving and Restoring Site Features), SSSIs Monitoring Specifications, the Anglian/North East Diffuse Water Pollution Plan, and the North East Local Nature Recovery Strategy (LNRS) have been included in Appendix C of the SEA Environmental Report.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
Pg. 19	Natural England	Drought options will be implemented at a time when the natural environment will already be under stress from drought through reductions in water supply to habitats and increased temperatures. This could have a range of impacts on ecological communities, favouring some species and habitats over others and where the impacts of the drought are prolonged due to drought plan actions, the ability of ecology to recover could be significant. The SEA will need to consider the impacts that the drought plan will have on the environment over and above the impacts of the drought itself.	SEA will need to consider the impacts that the drought plan (and its actions) will have on the environment over and above the impacts of the drought itself.	Section 4.1 Approach	Appendix F and Chapter 6 of the SEA Environmental Report consider the impacts of the drought actions on natural environment, over and above those arising from the drought itself. Cumulative assessment is also provided in Chapter 7 of the report.
Pg. 22	Natural England	A map with drought options would be useful to illustrate potential zone of effect on designated sites and priority habitats.	Include a map of potential zone of effect on designated sites and priority habitats	Table 4.1 Drought Plan demand and supply side actions	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. 23	Natural England	In addition to NWs duties under the Natural Environment and Rural Communities (NERC) Act 2006 to have regard for the conservation of biodiversity in exercising its function, NW also has a duty under section 28G of the Wildlife and Countryside Act 1981 and the Habitats Regulations 2017 to further the conservation and enhancement of the designated sites, therefore emphasis should be given to enhancement, not just protection. Baseline information provided in the scoping report is high level and generic and it is not clear to what level of detail the SEA will assess, Natural England would welcome clarity on the baseline methodology and data to determine how designated sites and priority habitats will be scoped in or out of the SEA.	Due to legislative duties to conserve and enhance habitat, emphasis should be given to enhancement not just protection. More clarity needed on baseline methodology and data to determine how designated sites and priority habitats will be scoped in or out of the SEA.	Section 5.2.1 Biodiversity, Flora and Fauna	In Table 5.1 of the SEA Environmental Report, the biodiversity, flora and fauna objective has been updated to include enhance as well as protect. Chapter 5 of the SEA Environmental Report provides further detail on the assessment methodology from the scoping report, including tables that set out sub-criteria for each characteristic such as the scale of impact, level of certainty, and the duration and permanence of the effect and a residual effects matrix that combines magnitude of effect with receptor value and sensitivity.
Pg. 27	Natural England	Natural England would suggest reference in the baseline to SSSI condition.	See Column D.	Section 5.2.2 Water	Appendix D of the SEA Environmental Report includes a list of SSSIs located within the SEA study area. As no changes to SSSIs are anticipated as a result of drought actions, the condition of these sites has not been reported.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
Pg. 36	Natural England	While water demand and population growth is referenced in the future baseline, water demand and industry growth, particularly in regard to Teesside developments and proposals, is a significant potential pressure on water demand too and could be highlighted within this section.	The Teesside Developments and proposals is a significant potential pressure on water demand and could be highlighted within this section.	Section 5.2.12 Future Baseline	Appendix D of the SEA Environmental Report has been revised to include additional text within the population and health baseline section, as follows: <i>"In addition to population growth, planned industrial growth within the Teesside Industrial Cluster represents a significant potential pressure on water resources. Future industrial water demand estimates for Teesside have been revised from 25 Ml/d to 190 Ml/d by 2030, reflecting the scale of proposed developments and the need for substantial infrastructure upgrades to maintain supply resilience. This increase is driven by major low-carbon projects and expansion in the energy and chemical sectors, which will require new raw water and wastewater treatment facilities, as well as strategic planning to address environmental capacity constraints."</i>
Pg. 39	Natural England	The table states that "there is a risk that drought actions proposed in the NW Drought Plan could lead to surface water or groundwater pollution, which may adversely affect wildlife. Wetland and marsh habitats are particularly vulnerable, as they depend on consistent water availability." More detail could be provided here in the scoping of issues, as it could be construed that issues are limited to pollution, and does not consider other key risks such as changes in flow / volume and water chemistry. For example, the drying of habitats could lead to habitat or community fragmentation. Drought actions could impact species' range, movement, food availability, reproduction, risk of predation, competition and ultimately their survival. They could increase the risk of algal blooms, or the spread or establishment of invasive species or species that favour the drought conditions. All these factors should be considered in the SEA.	Consider all factors listed in Column D in the SEA. More detail could be provided on the scoping of issues e.g. changes in flow/volume and water chemistry.	Table 6.1 Key issues and opportunities associated with each SEA Regulations topic – Biodiversity, Flora and Fauna	In Section 4.4 of the SEA Environmental Report, the Biodiversity, Flora and Fauna row within Table 4.2 (Issues column) has been revised to include additional potential risks, including changes in flow and volume, water chemistry, and habitat drying. All factors identified are considered within the SEA.

Item ref	Statutory body	Issue or comment + significance	Recommendation	Reference	Our response
Pg. 39	Natural England	Reference to pollution from rural areas being the predominant pressure in the Anglian RBD.	Remove reference to the Anglian RBD - not relevant for NW.	Table 6.1 Key issues and opportunities associated with each SEA Regulations topic – Biodiversity, Flora and Fauna	This is a typo, water row within Table 4.2 has been updated to refer to the Northumbria RBD.
Pg. 43	Natural England	Natural England suggests the first row should read 'protecting, conserving and enhancing designated sites and their qualifying features, priority species and priority habitats.'	See Column D.	Table 7.1. Proposed NW Drought Plan SEA objectives	Biodiversity, Flora and Fauna first objective within Table 5.1 of the SEA Environmental Report updated to ' <i>To protect and enhance biodiversity, ecological functions, capacity and habitat connectivity, including protecting designated sites and their qualifying features, priority species and priority habitats.</i> '
Pg. 53	Natural England	NW required to consider SSSI as well as sites under HRA.	Consider SSSI as well as sites under HRA.	Section 8.1.3 Linked Environmental Assessments	The SEA include assessment of SSSIs as outlined in Section 5.2 of the SEA Environmental Report.
Pg. 88	Natural England	Marine Conservations Zones (MCZs) should be added to the Designated sites in the Northumbrian Water Resource Zones (WRZs) map in Appendix B.	Add Marine Conservation Zones to the WRZ map.	Appendix B Figures	MCZs have been included in Figure 1.2 in Appendix D of SEA Environmental Report.

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.	NW 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 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 the NW Drought Plan 2027, the Strategic Environmental Assessment (SEA) objectives should align with the Convention, ensuring drought plan assess and mitigate ecological risks.

NW DROUGHT PLAN 2027

SEA: ENVIRONMENTAL REPORT

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
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.	The 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 utilization of genetic resources.	Relevant to NW Drought Plan 2027 and SEA because it requires the protection and sustainable use of biodiversity. It ensures that drought measures are ecologically responsible, legally compliant, and integrated into environmental monitoring and planning.

NW DROUGHT PLAN 2027

SEA: ENVIRONMENTAL REPORT

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
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 NW Drought Plan 2027 and SEA because it requires the protection and sustainable use of internationally important wetlands. The SEA must ensure that drought measures 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 NW Drought Plan 2027 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.

NW DROUGHT PLAN 2027

SEA: ENVIRONMENTAL REPORT

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
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 NW Drought Plan 2027 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.

NW DROUGHT PLAN 2027

SEA: ENVIRONMENTAL REPORT

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 1.5°C to 2°C 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 NW Drought Plan 2027 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 inventories, 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 NW Drought Plan 2027 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.

NW DROUGHT PLAN 2027

SEA: ENVIRONMENTAL REPORT

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
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 NW Drought Plan 2027 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 NW Drought Plan 2027 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.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
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 (PM _{2,5}) 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 ▪ 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.	The implementation of the Drought Plan may have some influence on local 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
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 <i>Anguilla anguilla</i> 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 (<i>Anguilla anguilla</i>) 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.	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.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		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.	
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	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.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		▪ 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.	
Birds Directive (Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds)	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. 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	The implementation of the Drought Plan may have some influence on bird's species, through operational activities and SEA should seek to protect, maintain and conserve bird's habitats and populations. The impacts of the Drought Plan drought actions on bird's species must be considered as part of the SEA.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		considering economic and recreational needs.	
Habitats Directive (Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora)	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 the Drought Plan may have some influence on natural habitats and of wild fauna and flora, through operational activities associated with the 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.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
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.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
			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 the 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.
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 the Drought Plan may have some influence on environment, through operational activities associated with the 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.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
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 the 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 the Drought Plan may have some influence on architectural heritage, through operational activities associated with the 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 the Drought Plan may have some influence on architectural heritage, through operational activities associated with the drought actions. The SEA should take into account the need to conserve heritage.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
The European Landscape Convention (2006)	Landscape	The Convention is also known as the Florence Convention and it aims to promote the protection, management and planning of European landscapes and organises European co-operation on landscape issues.	The implementation of the Drought Plan may influence landscape through operational activities associated with the 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 the Drought Plan may influence noise level through operational activities associated with the drought actions. The SEA should consider the need to prevent and preserve and reduce environmental noise and to protect sensitive receptors.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
European Site Conservation Objectives: Supplementary Advice on Conserving and Restoring Site Features	Biodiversity	This guidance provides supplementary advice to help achieve conservation objectives for European Sites, including SACs and SPAs. It outlines measures to conserve and restore designated features and maintain site integrity. Key features: ▪ Detailed advice on maintaining or restoring qualifying habitats and species. ▪ Guidance on site-specific pressures and management actions. ▪ Support for compliance with the Conservation of Habitats and Species Regulations. ▪ Integration with planning and project-level assessments.	The Drought Plan may affect SACs and SPAs through water abstraction or habitat changes. The SEA should ensure that actions do not hinder conservation objectives and should incorporate supplementary advice to protect site integrity.
European Soils Charter (2003)	Soil	The key provisions of the European Soils Charter are: ▪ Recognizes 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, salinization, urban sprawl, and loss of organic matter.	The implementation of the Drought Plan may influence soil quality or soil – water interdependence through operational activities associated with the drought actions. The SEA should seek to ensure that the quality soils, is protected or enhanced.

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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 the Drought Plan may influence soil – water interactions, land use and vegetation through operational activities associated with the 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 the Drought Plan may influence water quality through operational activities associated with the 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 the Drought Plan may influence water quality through operational activities associated with the 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.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
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 wastewater discharges and wastewater from certain industrial sectors. The main objectives are: ▪ Ensure the collection, treatment, and discharge of urban wastewater. ▪ Require appropriate treatment of wastewater from certain industrial sectors. ▪ Protect surface waters, coastal waters, and sensitive areas from pollution.	The 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 marginalized groups ▪ Promote transparency and consumer awareness ▪ Support climate adaptation and circular economy goals.	The implementation of the Drought Plan may influence drinking water quality through operational activities associated with the 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.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
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 the Drought Plan may influence bathing water quality through operational activities associated with the 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.	The Drought Plan may have some influence on the groundwater through operational activities associated with the 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.	The Drought Plan may have some influence on the marine environment through operational activities in marine areas. 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 the 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.	The Drought Plan may have some influence on the water resource through operational activities associated with the drought actions. The SEA should seek to ensure compliance with the requirements of the policy to ensure long-term sustainability of the water resources.

Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
National			
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 the Drought Plan may have some influence on freshwater and wetland habitats, through operational activities associated with the 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.
Ancient Monuments & Archaeological Areas Act 1979	Cultural heritage	This Act provides a legal framework for the protection and preservation of ancient monuments and archaeological sites of national importance. It introduces the concept of “scheduled monuments” and regulates works affecting them. Key provisions: ▪ Scheduling of Monuments: Designation of nationally important sites for legal protection. ▪ Scheduled Monument Consent: Requirement for consent before any works affecting a scheduled monument. ▪ Archaeological Areas: Designation of areas for controlled excavation and investigation.	The Drought Plan may affect archaeological sites through groundworks or infrastructure projects. The SEA should ensure protection of scheduled monuments and archaeological areas and consider potential impacts on cultural heritage.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		Enforcement & Penalties: Criminal offense to damage or alter scheduled monuments without consent.	
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 the Drought Plan may have some influence on climate through operational activities associated with the drought actions. SEA should seek to reduce greenhouse gas emissions and adapt to climate change impacts.
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 Areas of Outstanding Natural Beauty.	The implementation of the Drought Plan may have some influence on Countryside and Rights of Way through operational activities associated with the drought actions. SEA should seek to comply with the Act provisions.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
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 emphasized working with nature, rather than against it, to achieve sustainable outcomes.	The implementation of the Drought Plan may have some influence on natural ecosystem, through operational activities associated with the 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.
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 the Drought Plan may have some influence on environment through operational activities associated with the drought actions. SEA should seek to comply with the Report goals.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
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 the Drought Plan may have some influence on environment through operational activities associated with the drought actions. SEA should seek to promote the protection of the environment.
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	The implementation of the Drought Plan may have some influence on environment through operational activities associated with the drought actions. SEA should seek to promote the protection of the environment.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		Part IIA – Contaminated Land.	
Environmental Improvement Plan (EIP) 2025	Sustainability	The Environmental Improvement Plan 2025 sets out how the UK will restore and enhance the natural environment, building on the Environment Act 2021 and strengthening delivery of long-term environmental targets. It provides a comprehensive framework of measurable commitments, actions, and monitoring mechanisms to address climate change, biodiversity loss, pollution, and resource use. 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 the Drought Plan may have some influence on natural environment through operational activities associated with the drought actions. SEA should seek to reduce the impacts to the natural environment and comply with environmental goals.
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	The 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.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		- Establish Ecological Restoration Zones (now called Nature Improvement Areas) - Protect non-designated sites that contribute to ecological networks - Use ecosystem services (e.g., flood control, carbon storage) to support biodiversity 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.	The implementation of the Drought Plan may have some influence on marine environment through operational activities associated with the drought actions. SEA should seek to comply with the Act requirements.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
National Infrastructure and Construction Pipeline 2023, Infrastructure and Projects Authority (HM Government) (2023)	Environment	The 2023 National Infrastructure and Construction Pipeline (NICP) provide a clear and robust assessment of infrastructure investment over the next decade. Providing industry and investors with a consistent view of planned and predicted spending on infrastructure projects and programmes is critical to support companies in their short- and long-term business planning, and enable them to invest in the right skills, technologies and practices for the future.	The implementation of the Drought Plan may have some influence on infrastructure development through operational activities associated with drought actions. SEA should seek to consider planned and predicted spending on infrastructure projects and programmes.
National Planning Policy Framework (NPPF) (2024)	Planning	The current version of the UK government's planning policy for England replaces the previous 2023 version and introduces several significant changes across housing, design, sustainability, and green belt policies. It guides local authorities and developers in creating sustainable, well-designed communities.	The implementation of the Drought Plan will comply with the policy planning requirements through operational activities associated with the drought actions.
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:	The implementation of the Drought Plan may have some influence on land, freshwater, and coastal ecosystems through operational activities associated with the drought actions. SEA should seek to comply with the programme objectives.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		- 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.	
Planning (Listed Buildings & Conservation Areas) Act 1990	Cultural heritage	The Act consolidates laws relating to the protection of buildings and areas of special architectural or historic interest in England and Wales. It establishes a framework for listing buildings and designating conservation areas, ensuring that any alterations or demolitions require consent to preserve their historical significance. Key provisions: - Listing of Buildings: Identification and protection of buildings of special architectural or historic interest - Conservation Areas: Designation and management of areas with special character - Consent Requirements: Control over demolition, alteration, or extension of listed buildings - Enforcement: Penalties for unauthorised works.	The Drought Plan may influence historic buildings or conservation areas through construction or operational activities. The SEA should seek to avoid adverse impacts on listed buildings and conservation areas and ensure compliance with statutory requirements.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
Salmon and Freshwater Fisheries Act 1975	Biodiversity	Salmon and Freshwater Fisheries Act remain 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.	The Drought Plan may have some influence on the salmon population and habitats through construction or operational. 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.
SSSIs Monitoring Specifications	Biodiversity	SSSIs Monitoring Specifications provide detailed guidance on monitoring the condition of SSSIs in England and Wales. They set out methodologies for assessing habitat quality, species populations, and ecological integrity to ensure compliance with statutory conservation objectives. Key features: ▪ Standardized monitoring protocols for habitats and species ▪ Assessment of site condition against conservation objectives ▪ Data collection to inform management and reporting.	The Drought Plan may influence SSSIs habitats and species through operational activities. The SEA should seek to ensure that actions do not compromise site condition and align with monitoring requirements to maintain or restore favourable status.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		Support for statutory obligations under the Wildlife and Countryside Act 1981	
Standing Advice on Protected Species, Natural England (2024, 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 the Drought Plan may have some influence on protected species, through operational activities associated with the drought actions. SEA should seek to prevent to harm or disturb the protected species.
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 the Drought Plan may have some influence on freshwater ecosystems and wetlands, through operational activities associated with the drought actions. SEA should seek to define baseline environmental conditions, to perform risk identification, policy integration and mitigation.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
Strategic Direction – Recovering Nature for Growth, Health and Security, April 2025	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 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.	The implementation of the Drought Plan may have some influence on nature recovery, through operational activities associated with the drought actions. SEA should seek to comply with the strategic priorities of the strategy.
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) ▪ Reporting Framework (Based on a “comply or explain” approach) ▪ Alignment with Task Force on Climate-related Financial Disclosures ▪ Proposing streamlined metrics	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.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		Integrated Reporting (emphasizes data quality, proportionality, and integration with financial reporting boundaries).	
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 the Drought Plan may have some influence on natural habitats and species, through operational activities associated with the drought actions. SEA should seek to protect, maintain and conserve natural habitats and species.
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	The implementation of the Drought Plan may have some influence on natural habitats and of fauna and flora and birds, through operational activities associated with the drought actions. SEA should seek to protect, maintain and conserve natural habitats and of wild species. The impacts of the Drought Plan drought actions on habitats must be considered as part of the SEA.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		Monitoring and Enforcement.	
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 (<i>Anguilla anguilla</i>). 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.	The Drought Plan may have some influence on the eel's 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.
The Great Britain Invasive Non-Native Species Strategy, Defra (2015), updated by the 2022-2030 strategy	Biodiversity	The Great Britain Invasive Non-Native Species Strategy provided a national framework to minimise risks posed by invasive non-native species, 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 the Drought Plan may have some influence on introducing invasive non-native species, through operational activities associated with the drought actions. SEA should seek to prevent the introduction and spread of invasive non-native species and to respond quickly in case of detection.
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:	The implementation of the Drought Plan may have some influence on introducing invasive alien species, through operational activities associated with the drought actions.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		- Prevent the introduction and spread of invasive non-native species - Protect native biodiversity and ecosystems - Align UK enforcement with retained EU law post-Brexit.	SEA should seek to prevent the introduction and spread of invasive non-native species.
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 the Drought Plan may have some influence on natural environment through operational activities associated with the drought actions. SEA should seek to comply with the Act provisions.
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:	The implementation of the Drought Plan may identify climate through operational activities associated with the drought actions. SEA should seek to address climate risks and opportunities.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
		▪ Infrastructure resilience ▪ Water and flood risk management ▪ Health and wellbeing ▪ Natural environment and biodiversity ▪ Food security and supply chains ▪ Business continuity and finance.	
The Wildlife and Countryside Act 1981 (as amended)	Biodiversity	The Wildlife and Countryside Act provide a legal framework for the protection of wild animals, birds, plants, and their habitats. It also governs public rights of way, Sites of Special Scientific Interest, and National Parks. The key provisions are: ▪ Protection of Wildlife ▪ Control of Invasive Species ▪ Licensing ▪ Sites of Special Scientific Interest ▪ Public Rights of Way.	The implementation of the Drought Plan may have some influence on wildlife through operational activities associated with the drought actions. SEA should seek to promote the protection of the wildlife.
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: ▪ Biodiversity Net Gain (BNG) ▪ Nature Recovery ▪ Planning Integration ▪ Consultation and Stakeholder Engagement.	The 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.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
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 prioritizes 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 the Drought Plan may identify climate risks and opportunities through operational activities associated with the drought actions. SEA should seek to reduce greenhouse gas emissions and adapt to climate change impacts.
Regional and local			
Site Improvement Plans (SIPs) for Natura 2000 Sites - North East	Biodiversity	SIPs identify site-specific pressures and actions needed to improve the condition of Special Areas of Conservation and Special Protection Areas. Many sites are sensitive to hydrological change, abstraction, and drought.	The Drought Plan must avoid adverse effects on Natura 2000 sites. SEA should assess risks to designated sites and ensure mitigation aligns with SIPs actions.
Northumbria River Basin Management Plan (RBMP) (2022)	Water	The RBMP sets out how the water environment will be protected and improved across the region. It identifies pressures on water bodies, including abstraction and pollution, and outlines measures to achieve good ecological and chemical status under the Water Framework Directive.	The implementation of the Drought Plan may influence water quality and ecological status through abstraction and operational activities. SEA should seek to align with RBMP objectives and avoid deterioration of water bodies.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
Catchment Abstraction Management Strategies (CAMS) (2025)	Water	CAMS provide a framework for managing water abstraction in a way that balances the needs of abstractors and the environment. They define sustainable abstraction limits and guide licensing decisions to protect river flows and groundwater levels.	The Drought Plan must consider CAMS-defined abstraction thresholds and environmental flow requirements. SEA should assess the risk of over-abstraction and ensure compliance with sustainable abstraction principles.
Northumbrian Water Drought Plan (2022)	Water	The Drought Plan sets out how Northumbrian Water will manage water supplies during periods of drought to maintain essential services and protect the environment. It outlines triggers, actions, and communication strategies for escalating drought response levels. The plan aligns with Environment Agency guidance and includes environmental monitoring and mitigation measures.	The implementation of the Drought Plan may influence water abstraction, river flows, and ecological conditions. SEA should assess potential environmental effects and ensure alignment with water resource sustainability and biodiversity protection objectives.
Water Resources North (WReN) Regional Plan (2025)	Water	The WReN Regional Plan sets out a long-term strategy for securing resilient and sustainable water supplies across the North of England. It promotes collaboration between water companies and stakeholders to address future challenges including climate change, population growth, and environmental protection.	The Drought Plan should reflect WReN's regional priorities. SEA should assess cumulative impacts and synergies with regional water resource strategies.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
Northumbria Flood Risk Management Plan (FRMP) 2021–2027	Water	The FRMP outlines how flood risk will be managed across the Northumbria River Basin District. It identifies flood risk areas, sets objectives for managing risk, and proposes measures to reduce the likelihood and consequences of flooding. The plan supports the National Flood and Coastal Erosion Risk Management Strategy and the 25 Year Environment Plan.	The 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.
Rights of Way Improvement Plan (ROWIP) 2025–2035 – Northumberland	Landscape	The ROWIP outlines how public rights of way will be improved to support recreation, health, and sustainable transport. It includes actions to enhance connectivity, accessibility, and climate resilience of the countryside access network.	The implementation of the Drought Plan may affect access routes or landscapes through operational activities associated with the drought actions. SEA should seek to protect public access and landscape quality in line with ROWIP objectives.
Local Nature Recovery Strategies (LNRS), North East (2024)	Biodiversity	LNRSs are statutory strategies under the Environment Act 2021, designed to identify priorities and actions for nature recovery at the local level. In the North East, four LNRSs are being developed: North of Tyne, South of Tyne and Wear, Durham, and Tees Valley. These strategies aim to restore habitats, improve connectivity, and support biodiversity net gain.	The Drought Plan should avoid undermining LNRS objectives and support habitat resilience. SEA should assess potential impacts on priority habitats and species and promote synergies with LNRS actions.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
Climate Action Strategy – Insights North East (2024)	Climate factors	This regional strategy supports the North East's transition to net zero and climate resilience. It focuses on reducing emissions, enhancing green infrastructure, and adapting to climate risks such as flooding and drought. The strategy is developed in collaboration with local authorities, universities, and the Net Zero North East partnership.	The Drought Plan should contribute to climate adaptation and resilience goals. SEA should assess how the plan supports or conflicts with regional climate mitigation and adaptation strategies.
Northumbrian Water (NW)			
NW Restore and Regenerate: Environment Strategy to 2050 (2023)	Environment	This long-term strategy sets out Northumbrian Water Group'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.	The Drought Plan must align with this overarching strategy, particularly in relation to water resource sustainability, climate resilience, and environmental protection. SEA should promote environmental regeneration and integration with catchment-scale planning.
NW WRMP 2024 (WRMP24) (2022)	Water	Sets out a 25-year strategy (2025–2050) to ensure secure and sustainable water supplies across the North East of England. The plan addresses climate change, population growth, and drought resilience while aiming to reduce environmental impact through demand management and infrastructure investment.	The Drought Plan could influence the implementation of WRMP24 by accelerating infrastructure delivery, 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.

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Policy, plan and programme	Topic	Key objectives, guidance and references	Relevance for Drought Plan and the SEA objectives
NW Leakage Strategy for AMP8 (2020)	Water	This strategy sets out Northumbrian Water's commitment to reducing leakage by 8% during AMP8 (2025–2030), with a long-term target of 55% reduction by 2050, based on a 2017/18 baseline. The strategy includes smart network technologies, acoustic loggers, and trials such as LeakNavigator to improve leak detection and response.	The Drought Plan could accelerate the implementation of leakage reduction measures as part of emergency demand management. SEA should assess how drought-related actions support or challenge leakage reduction goals and infrastructure efficiency.
NW Pollution Incident Reduction Plan (2022)	Water	Updated in 2022, this plan outlines how NW reduces pollution incidents through real-time monitoring, AI-based detection, and public engagement campaigns like "Bin the Wipe". It aligns with Environment Agency pollution reduction targets.	Drought conditions can increase pollution risks due to low flows. SEA should assess potential impacts on water quality and compliance with pollution reduction goals.
NW Drainage and Wastewater Management Plan (DWMP) (2023)	Water	This 25-year strategic plan sets out how NW will maintain, improve, and expand its drainage and wastewater systems to ensure resilient infrastructure across the North East. The plan focuses on reducing storm overflow spills, improving bathing water quality, protecting rivers and shellfish beds, and adapting to challenges such as climate change, population growth, and urban development. It promotes nature-based solutions and green infrastructure, with significant investment planned to enhance catchment management and reduce flooding risks.	The Drought Plan should consider interactions with the DWMP, particularly where drought actions could affect wastewater system performance, storm overflow frequency, and water quality. SEA should assess cumulative impacts on river health, bathing waters, and flood resilience, ensuring alignment with DWMP objectives for environmental protection and climate adaptation.

APPENDIX D ENVIRONMENTAL BASELINE

This appendix is available as a standalone document.

APPENDIX E DEFINITIONS OF RESIDUAL EFFECT

SEA topic	Datasets/key themes	Effect	Description
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 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.

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SEA topic	Datasets/key themes	Effect		Description
				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.
		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.

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SEA topic	Datasets/key themes	Effect		Description
				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.
		?	Uncertain	From the level of information available the effect that the action would have on this objective is uncertain.
Water	Environment Agency Flood Defences	+++	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.
	Environment Agency Main Rivers	++	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.
	Flood Zones 2 and 3			
	Surface Water Features	+	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.
	WFD River Water body Catchments			
	WFD River Water bodies Cycle 2	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.
	Source Protection Zones			
	WFD Groundwater bodies			

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SEA topic	Datasets/key themes	Effect	Description
		-	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. 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.

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SEA topic	Datasets/key themes	Effect		Description
		?	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 Mineral & Waste allocations (where available)	+++	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.
		+	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

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SEA topic	Datasets/key themes	Effect		Description
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.
		-	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 CO ₂ e/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 CO ₂ e/year

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SEA topic	Datasets/key themes	Effect		Description
				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.
		-	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	+++	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.

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SEA topic	Datasets/key themes	Effect		Description
	Indices of Multiple Deprivation 2025 ¹⁰⁴			The action creates new, and significantly enhances existing, recreational facilities, publicly accessible greenspace and/or tourism within the operational area.
	Functional site:			
	- Schools - Medical facilities.	++	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.
	OS Greenspace dataset:			The action enhances existing, recreational facilities, publicly accessible greenspace and/or tourism within the operational area
	- 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.	+	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.

¹⁰⁴ Indices of Deprivation 2025 are scheduled for release between October and November 2025.

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SEA topic	Datasets/key themes	Effect		Description
Historic environment	Listed buildings:	+++	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
	- Grade I listed structures - Grade II* listed structures - Grade II listed structures.			
	Registered Parks and Gardens:	++	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.
	- Grade I Registered Parks and Gardens - Grade II* Registered Parks and Gardens - 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: Demolition or further deterioration in the condition of designated heritage assets especially those identified in the Historic England Buildings/Monuments at Risk Register.

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SEA topic	Datasets/key themes	Effect		Description
				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. 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.

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SEA topic	Datasets/key themes	Effect		Description
				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	Housing allocations (where available) Transport: - Major roads – A roads - Major roads motorway - Railway line - National cycle route - National trails.	+++	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.
		++	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.

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SEA topic	Datasets/key themes	Effect		Description
				The action results in a minor increase in energy consumption with no renewable energy drought actions. 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 drought actions. The action results in a moderate disruption on built assets and infrastructure, including transport links.
		---	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 drought actions. 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.