

REVISED DRAFT WATER RESOURCES MANAGEMENT PLAN 2024

**FURTHER INFORMATION IN SUPPORT OF
CONSULTATION STATEMENT
OF RESPONSE**

MARCH 2024



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GLOSSARY

Term / Acronym	Definition
AMP7	Asset Management Period 7 (April 2020 – March 2025)
AMP8	Asset Management Period 8 (April 2025 – March 2030)
APR	Annual Performance Reporting
BNG	Biodiversity Net Gain
CMOS	Central Market Operating System
DEFRA	Department of Environment, Food and Rural Affairs
DMA/DA	District Metering Areas / Drainage areas
DMOs	Demand Management Options
DO	Deployable Output
DWI	Drinking Water Inspectorate. DWI has responsibilities under the Water Industry Act 1991 relating to the sufficiency and quality of water supplies.
DWMP	Drainage and wastewater management plan
dWRMP	Draft Water Resource Management Plan
DYAA	Dry Year Annual Average
DYCP	Dry Year Critical Period
EA	Environment Agency. The Environment Agency is a statutory consultee for WRMPs. It leads on producing guidance for water companies to use in compiling their WRMP. It has a statutory duty to secure the proper use of water resources in England. The Environment Agency works with water companies as they prepare WRMPs and provide a representation as part of water companies' WRMP consultation. At the statement of response stage, its role changes and it becomes a technical advisor to the Department for Environment, Food & Rural Affairs (Defra) and the Secretary of State.
EBSD	Economic Balance of Supply and Demand
EIP	Environment Improvement Plan
ER	Environment Report
HRA	Habitats Regulations Assessment
fWRMP	Final WRMP
HH	Household (Domestic use customers)
INNS	Invasive Non-native Species
l/head/day	Litres per head per day (litres per person per day)
l/min / l/hr / l/yr	Litres per minute / litres per hour / litres per year
l/p/d	Litres per property per day (litres per premises per day)
MI/d	Megalitres per day
MOSL	Market Operator Service Ltd
Natural Capital	The natural resources and environmental features in a given area, regarded as having economic value or providing a service to humankind.
NAVs	New Appointments and Variations
NHH	Non-Household (Business customers whose primary use of water is non-domestic)
NPP	National Population projections
NPPF	National Planning Policy Framework
NW	Northumbrian Water

Term / Acronym	Definition
NWG	Northumbrian Water Group
NWL	Northumbrian Water Limited
NYAA/ DYAA/ DYCP	Normal Year Annual Average / Dry Year Annual Average / Dry Year Critical Period
Ofwat	Ofwat is the economic regulator of the water industry. It is a statutory consultee for WRMPs, has been key stakeholder during the development of our plan and will provide a representation as part of our consultation. Our WRMP will primarily inform the supply demand balance part of our business plans which we will submit to Ofwat. Ofwat determines the extent to, and conditions under which, we can recover the costs of investment through our charges to customers.
ODIs	Outcome Delivery Incentives
p.a.	Per annum (per year)
PCC	Per Capita Consumption
PHC	Per Household Consumption
Planning Horizon	Refers to the forecasted years from 2024/25 until 2079/80.
PPP	Review of Policies, Plans and Programmes
PR19	Price Periodic Review 2019 – Business Plan 2020-2025
Price Review (PR)	Ofwat is the economic regulator of the water industry and every five years it sets the investment and service package that customers receive including the price water companies charge their customers. Ofwat carry out a review of these price limits known as a Price Review (PR) every five years. The current Price Review will be completed in 2024 and so is known as PR24 and will set customer bills for the period 2025 to 2030. As part of the Price Review process, water companies submit a business plan which sets out the investment and outcomes for customers and the environment that they are required to deliver and how this would impact customer bills. The Business Plan will include the investment needed to deliver the WRMP24 Best Value Plan.
RAPID	Regulators' Alliance for Progressing Infrastructure Development (RAPID) RAPID will help accelerate the development of new strategic water infrastructure and inform future regulatory frameworks. It is made up of the 3 water regulators in England: Ofwat, Environment Agency and DWI. It also works closely with Welsh Government and Natural Resources Wales. Find further information on RAPID's website. Some water companies received additional funding to investigate and develop strategic regional water resource options in the 2019 price review (PR19) final determination.
RdWRMP24	Revised draft Water Resources Management Plan 2024
SAC	Special Area of Conservation
SDB	Supply Demand Balance
SEA	Strategic Environmental Assessment
SPA	Special Protection Area
SoR	Statement of Response
SRO	Strategic Resource Option
SSSI	Site of Special Scientific Interest
WAFU	Water Available For Use
WETT	Water Efficiency Target Tracker

Term / Acronym	Definition
Water Industry National Environment Programme (WINEP)	A programme of actions (investigations, options appraisals, and implementation schemes) water companies are required to take to meet the environmental legislative requirements that apply to water companies in England.
WFD	Water Framework Directive
WRE	Water Resources East
WReN	Water Resources North regional group
WRMP19	Water Resource Management Plan 2019
WRMP24	Water Resource Management Plan 2024
WRMP29	Water Resource Management Plan 2029
WRPG	Water Resources Planning Guideline
WRZ	Water Resource Zone
YW	Yorkshire Water

1. INTRODUCTION

This document is our revised draft Water Resources Management Plan 2024 (RdWRMP24) **Further Information in Support of our consultation Statement of Response**. It addresses feedback we received from DEFRA on 6 February 2024, and from the Environment Agency on the 16 and 22 February, on our draft Water Resources Management Plan 2024. It has been sent to statutory consultees, and all those who submitted consultation responses on our draft WRMP24 and has been published on our website (www.nwg.co.uk/wrmp).

Our RdWRMP24 sets out how we intend to achieve a secure, resilient, and sustainable supply of water for our customers and a protected and enhanced environment, both now and in the long term.

Our draft WRMP24

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

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

We submitted our draft WRMP24 to Defra on 3 October 2022, published it on our website at <https://www.nwg.co.uk/responsibility/environment/wrmp/nw-draft-water-resources-management-plan-2024-consultation>, and invited statutory consultees, our customers, and other interested stakeholders to comment on it. The consultation took place over a 12 week period between Friday 18 November 2022 and Friday 24 February 2023.

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

- Our projections of future water needs including those of our customers, businesses, and the environment; and
- Our preferred plan including:
 - Our demand management options to reduce leakage by 50% by 2049/50 through a range of actions including smart metering, and water efficiency programmes; and
 - In the long term, potential raw water transfers to other water companies.

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

Our regional water resources group, Water Resources North (WReN) has also prepared a regional plan which can be found at <https://www.waterresourcesnorth.org/our-region/wren-regional-draft-plan/>. It sets out how it will address the need for resilient and sustainable water supplies at a regional and national level. WReN's Regional Plan has informed our Northumbrian Water draft WRMP24 and was consulted on at the same time as our draft Plan.

We prepared a consultation Statement of Response (SoR) which described:

- a. our consideration of the consultation responses;
- b. the changes we have made to our dWRMP24 to prepare our RdWRMP24, as a result of the consultation responses and the reasons for doing so, and where no change has been made to the dWRMP24 the reasons for this; and
- c. how we have taken account of the third round of regional reconciliation planning in which water transfers between companies and regions were agreed.

Our Revised draft WRMP24

We submitted our Statement of Response (SoR) to our consultation on our dWRMP along with our RdWRMP24 to DEFRA and published those documents on our website on 31 July 2023. DEFRA have reviewed them along with advice from the Environment Agency, prior to submitting the documents to the Secretary of State for a decision on next steps. Before DEFRA can refer our plan to the Secretary of State for a decision, we must provide the further information they have requested to support our Statement of Response, which can be seen in Appendix A.

Section 1.2 of this document provides our response to that request and details how we will amend or update our RdWRMP24 as a result. We envisage that we will be directed to publish our final WRMP24 on our website (www.nwg.co.uk/wrmp) either in July 2024 or in September 2024 after the parliamentary summer recess.

Other changes to our Revised draft WRMP24

The Environment Agency has also provided us with additional feedback on our RdWRMP24 in a '**Statement of Response Review Annex**', which can be seen in Appendix B. The Environment Agency has indicated that these points were not raised to Defra but may improve our plan, and whilst we are not obliged to address these issues, the Environment Agency has recommended that as many as possible are considered. We have detailed in section 1.3 where we will incorporate amendments in response to these recommendations, and where we are not planning to make amendments, we have explained why.

The Environment Agency has also provided us with their '**Statement of Response SEA Technical Appendix**', which can be seen in Appendix C, referred to in their advice to Defra, which details their review of our Strategic Environmental Assessment, which accompanies our RdWRMP24. We have detailed in section 1.4 where we will incorporate amendments in response to these recommendations, and where we are not planning to make amendments, we have explained why.

2. ADDITIONAL INFORMATION IN SUPPORT OF CONSULTATION STATEMENT OF RESPONSE

2.1 ADDITIONAL INFORMATION REQUESTED BY DEFRA AND OUR RESPONSES

This section describes how we have considered each of DEFRA's further information requests, whether or not a change to our RdWRMP24 has been made as a result, and if a change has not been incorporated into our draft final WRMP24 we have explained why.

Issue	DEFRA Information request	NW Response	
1	Sustainability changes	<p>The response addresses most of the points raised, however, there is an outstanding issue regarding the sustainability of a licence variation due to expire in 2027. This licence would have a minor impact on deployable output in the Berwick & Fowberry resource zone. The company states that the Environment Agency have confirmed that the renewal is sustainable. This is not the case and further evidence is required before this can be concluded.</p> <p>The company must update the plan to remove reference to Environment Agency confirmation to no risk of deterioration of supply and reduce the Fowberry source deployable output figure from 3.18 Ml/d to the reduced licence figure of 3.12 Ml/d from 2027.</p>	<p>In January 2024, the Environment Agency accepted the evidence in our report, entitled 'AMP6 WINEP Fowberry Fell Sandstone Sustainability – Assessment of impact on the Till', January 2024', was sufficient to show no measurable direct impact on the River Till from our Fowberry groundwater abstractions. However, they have since indicated we cannot assume renewal of the licence at the higher abstraction rate in 2027, when the time limited condition expires. The Environment Agency have stated that we will be required to demonstrate sustainability at the higher abstraction rate (daily limit 3.64Ml/d and annual average limit of 3.18Ml/d) within the context of other non-NW licence renewals due in 2027 in the Till catchment, and the cumulative effect of these on the River Till.</p> <p>We have therefore amended our revised draft WRMP to remove references regarding presumption of renewal of the Fowberry abstraction licence in 2027.</p> <p>The WRMP tables and all SDB sections in our draft final WRMP24 now reflect a reduction in DO in the Berwick & Fowberry WRZ from 2027, reflecting expiration of the time-limited condition.</p>
2	Environment Improvement Plan (EIP) Targets	<p>Interim targets</p> <p>The company has not included information in the plan to show whether it will or will not meet the EIP interim targets. This should be included within the final plan as instructed in the water resources planning guideline. The company should provide justification if it does not plan to meet these targets.</p>	<p>Interim targets</p> <p>We have included a summary table in our draft final WRMP24 (section 8.5.1) confirming if we are forecasting to meet EIP targets, and additional narrative to explain that whilst we are forecasting to deliver the interim PCC targets (2038) and long-term targets (2050), for both normal and dry year; we are not forecasting to meet the interim targets for leakage or Distribution per head.</p> <p>Our understanding is that the interim EIP targets are not a legal requirement on individual water companies. Consequently, the profiles we have assumed for reducing both leakage and household and non-household consumption are based on what we think is deliverable, for example in the case of our smart metering programme, the availability of contractors and smart meters, the latter of which has been problematic due to global demand for microchips.</p>

Issue	DEFRA Information request	NW Response
	<p><u>Baseline</u></p> <p>The evidence presented in the plan does not adequately explain the baseline numbers from which the company have derived the assumed reductions. The company must ensure the final plan clearly articulates the baseline against which the EIP metrics are assessed to ensure progress against delivery of these targets can be monitored.</p> <p><u>Non-household demand</u></p> <p>The company states its intention to meet the targets to reduce non-household (NHH) demand by 9% reduction by 2037-38 excluding all growth (note this excludes significant growth associated with the high demand 'Net Zero Teesside' scheme). The target is not met if growth is included.</p> <p>In its final plan, the company should clarify what certainty surrounds the forecast increase in potable water demand of 38 MI/d on Teesside.</p> <p>The company should also set out how the uncertainty is managed in the context of the NHH demand reduction strategy, and particularly meeting the target of 9% reduction by 2038. It should also provide sensitivity scenarios.</p>	<p>We have considered alternative scenarios for leakage including a profile for reducing leakage faster in AMP8 to hit the interim 2032 target, with the remainder of the planning period to 2050 having a linear delivery profile. However, we have chosen a linear profile because:</p> <ul style="list-style-type: none"> - An acceleration towards the start would incur significant additional cost in AMP8 as well as overall cost, even though the end point is the same, a 55% reduction by 2050. - Reflecting a linear delivery profile is important to maximise deliverability in terms of employing and training the right resources to enable and support additional find activity. By adopting a linear profile, we are able to train and retain staff to deliver over the profile rather than increasing resources and then needing to reduce later in the profile. <p>Consequently, our preferred final plan strategy is to continue with a linear leakage reduction delivery profile.</p> <p><u>Baseline</u></p> <p>We have included section 8.5.2 in our main report which details the forecast against the EIP targets and details the baseline for these targets which is the 2019/20 reported values.</p> <p><u>Non-household demand</u></p> <ul style="list-style-type: none"> • Level of certainty in Teesside demand <p>We have regular meetings with Teesside business. Based on these discussions, we consider that we have a high level of certainty with regards to the forecast 28MI/d increase in potable water demand from current businesses. Nevertheless, in the medium to long term, further new businesses may well locate on Teesside and so it's possible demand may be higher than we are currently forecasting.</p> <ul style="list-style-type: none"> • Justification for our relative rather than absolute non-household demand reduction target <p>Business Demand is a new obligation and therefore an emerging area. In collaboration with WRE partners we engaged retailers and non-household customers to test barriers and opportunities related to non-household water</p>

Issue	DEFRA Information request	NW Response
		<p>efficiency. In turn, we have devised a non-household water efficiency strategy that effectively balances ambition against deliverability, to deliver a 9% reduction on existing annual NHH demand (i.e., excluding growth) by 2037/38 against a 3-year average baseline taken in 2019/20. We expect that we will have to further iterate as our learning and experience progresses in this area.</p> <p>We have committed to a relative target (i.e., excluding growth) instead of an absolute target because:</p> <ul style="list-style-type: none"> a) We are forecasting significant (38Ml/d) additional non-household potable water demand in our Kielder water resource zone, largely from industrial Teesside. If we were to commit to an absolute 9% reduction target (including forecast non-household growth), this would mean we would have to significantly increase our non-household water efficiency programme which we consider would be an unreasonable burden both on NWL and our customers. We suggest national policy, regulations (e.g., Water Supply (Water Fittings) Regulations (1999) (revised)), development control and environmental permitting should ensure that new development is water efficient from the outset. b) We have sized our non-household water efficiency programme to deliver a 9% reduction (excluding growth) considering uncertainties regarding the deliverability of the preferred water efficiency options, water savings achieved and engagement through the complex relationship between wholesalers, retailers, and non-household customers. However, given these uncertainties, we do not consider it possible to deliver the demand savings that would be required to achieve an absolute 9% reduction including the forecast non-household growth. <p>Given the above points, we think it is fair and reasonable for us to continue to plan to a relative 9% reduction in non-household demand by 2038.</p> <p>Delivery of the Government's Business Demand EIP target will require action from multiple sectors, organisations, and stakeholders. Our new non-household water efficiency strategy includes provision to work collaborative with retailers by actively driving the relationships and opportunities. We have already demonstrated collaboration through initiating development of the NHH demand management options in conjunction with WRE partners, retailers, and businesses.</p>

Issue	DEFRA Information request	NW Response
	<p><u>Distribution input</u></p> <p>The company states that it meets the 20% reduction target of distribution input per capita by 2037/38, however its data indicates that overall interim and long-term targets are missed by a significant margin. If the business demand for the Teesside net zero hub is removed the target is achieved. A clear explanation and demonstration of how Northumbrian Water is meeting the government requirement is missing. This is needed to confirm whether the 20% target is met, and how it will be met. WRMP tables provide a figure for 2037-38, but not the 2019/20 baseline.</p> <p>Northumbrian Water should provide a clear and evidenced explanation of how it will deliver the 20% government target and demonstrate using the data set out in the plan tables how this is expected to be achieved. Due to the impact Northumbrian Water have stated, this may include scenarios to demonstrate efficient approaches to reduce Business Demand with and without the Teesside net zero scheme impact, so we can understand the impact of this demand.</p>	<p>Management of uncertainty in the context of the NHH demand reduction strategy</p> <p>For the reasons described above, our non-household demand reduction strategy will deliver a 9% reduction in current demand (excluding growth). Consequently, if Teesside potable water demand outturns lower or higher than we forecast, this would not impact our performance in reducing business demand for water. More generally, uncertainty is managed within our measured NHH demand forecast which was developed by specialist consultants Ovarro Da Ltd (Ovarro).</p> <p><u>Distribution input</u></p> <p>We will deliver the national 20% reduction in DI target through our demand management options as described in section 8.3.2 of our draft final WRMP. Section 8.5.1 of our revised draft WRMP24 confirms how we will meet two of three interim targets for reduction in demand per head under a normal year annual average scenario but excluding the non-household growth at Teesside. Likewise, we meet the 2038 target under a dry year annual average scenario but also excluding Teesside growth.</p> <p>We still consider it reasonable to exclude the additional 38MI/d of forecast non-household potable demand for the Kielder water resource zone (of which 28MI/d is industrial Teesside), from the 20% reduction target for the reasons described above. Additionally, delivery of the Government’s Business Demand EIP target is a new obligation and an emerging area for water companies. It will require collaborative working / action from multiple sectors, organisations and stakeholders and so is not within our full control. Consequently, we believe that the level of uncertainty in options to deliver reductions in demand is significant. While we have confidence in delivering a relative reduction in demand (i.e., a 9% reduction of current demand – excluding growth), given the concerns presented above, we do not have confidence in delivering against an absolute 9% reduction (i.e., taking account of the forecast additional potable water demand on industrial Teesside).</p>

Issue	DEFRA Information request	NW Response
<p>3</p>	<p>Set out screening criteria used in the options appraisal process and assess proposed changes to meet Teesside demand as a supply option</p> <p>Northumbrian Water has provided a more robust explanation of the assessment criteria and methods to identify options chosen in their revised draft WRMP. The unconstrained list and reasons for rejection is now available in the data tables. However, the criteria used to screen from unconstrained to feasible are not set out and are not readily available for interested parties.</p> <p>To meet non-potable demands in Teesside the plan proposes restoring a mothballed site and increasing abstraction licences. This is effectively a new supply option that has been introduced at the revised draft WRMP stage. Northumbrian Water has not demonstrated whether this is the most appropriate choice, and consequently alternate options may be better value, or whether there are inappropriate environmental impacts.</p> <p>Northumbrian Water should set out the criteria used in its options screening process and update its options appraisal to include this new supply option. This will be useful to demonstrate the options chosen are best value and environmentally appropriate. If the evidence suggests an alternative plan the company will need to engage with regulators and Defra to set out how to update the plan.</p>	<p>We met with the Environment Agency on 8 February 2024 and explained that following savings from our demand management options, our final plan supply headroom is sufficient such that the only supply option needed in our final plan is to re-commission our Low Worsall intake on the River Tees. This would include varying the Low Worsall and Blackwell abstraction licence licensed quantities back to their original (pre-2016) licensed quantities in order to supply industrial Teesside. The abstraction licensed quantities were reduced in 2016 reflecting the lower demands at that point in time. However, it was agreed with the Environment Agency in 2016 that the licence would be varied to increase licensed quantities once Teesside industrial demand was forecast to increase.</p> <p>Recommissioning Low Worsall intake will require new intake eel screens to be installed which will be base (not enhancement) activity. Given Low Worsall intake is an existing intake and designed specifically to supply industrial Teesside, it was agreed with the Environment Agency on 8 February 2024 that it was reasonable not to consider alternative options. However, we agreed to include the scheme in our WRMP24 environmental assessments and include the relevant outputs in an updated version of the Environment Report and associated appendices. This work will be completed by 23 April. The new assessments will cover currently available information although further work will be needed going forward which will be covered by an AMP8 WINEP investigation and Kielder Strategic Resource Options (SRO) investigations.</p>
<p>4</p>	<p>Environmental assessment concerns (SEA/HRA)</p> <p>The company's Habitats Regulations Assessment (HRA) does not consider potential impacts of a new proposed supply option because the company did not recognise the proposed works as an option. In its current form, there is a risk that the plan may not be compliant with the Habitats Regulations. Northumbrian Water must assure itself that the plan is compliant with the regulations; it should need to update the HRA to include this option in the assessment before the final plan is published.</p> <p>The company was also asked to address several issues concerning their Strategic Environmental Assessment (SEA) report. The company has made several significant improvements to their SEA. However, some points remain which require attention, these relate to:</p> <ul style="list-style-type: none"> reflecting proposed increases in annual/daily abstractions and changes to infrastructure required to meet increased demand at Teesside 	<p>As confirmed in 3) above, we are undertaking the required environmental assessments (i) SEA, ii) WFD, iii) HRA, iv) INNS v) BNG, vi) Natural Capital for the Supplying Teesside Industrial Water option, including cumulative and in-combination assessments, where appropriate, and including the relevant outputs in an updated version of the Environment Report and associated appendices, including the HRA Appendix.</p> <p>We are updating the SEA and associated environmental assessments to reflect the abstraction and infrastructure changes (new eel screens at Low Worsall) required to meet increased industrial demand on Teesside.</p> <p>We have worked with Yorkshire Water to ensure it has sufficient information about the wider environmental implications of the Tees to Yorkshire transfer option, including the operation of the Kielder System and Cow Green, to be able to fully assess its environmental impacts within its final draft WRMP24.</p> <p>We will also be working with Yorkshire Water going forwards as part of the Kielder SRO. As part of this, the environmental assessments will be further</p>

Issue	DEFRA Information request	NW Response
	<ul style="list-style-type: none"> • accountability for assessment of environmental impacts in its SoR response • reliance on Yorkshire Water’s SEA for assessment and mitigation/monitoring • limited consideration of alternatives • cumulative effects • how the SEA has influenced the plan <p>The Environment Agency will provide the company with detailed feedback on the SEA in a technical appendix. Any significant issues that are raised must be addressed by the company before the final plan is published. Reports to be submitted to regulators and a review allowed before the final WRMP and SEA/HRA are allowed to be published.</p>	<p>developed as the transfer option progresses from concept through to detailed feasibility and design.</p> <p>The assessments consider receptors where there is considered to be an effect (e.g., the Kielder area and/or Cow Green and associated SSSI/SAC/SPA designations - as needed). Outputs from these assessments are being fed into the WRMP decision-making process. Further to the above, the suite of assessments will also include Stage 2 assessments, as required, for instance if a WFD Stage 2 Assessment is necessary.</p> <p>Further review of the effects on the Kielder area will be undertaken and summarised in the assessment of the plan. Please note that increased NWL demand etc. is also considered within the WRMP plan-making and supply-deficit modelling.</p> <p>Alternative Demand Management Option packages have been assessed as part of our options appraisal and SEA. Yorkshire Water has included assessment of alternatives to the Tees to Yorkshire transfer as part of its WRMP.</p> <p>We are revisiting our cumulative and in-combination effects assessments in light of updates to other relevant plans and also the changes to our own WRMP and providing additional commentary regarding how the SEA has influenced the development of the WRMP.</p> <p>We also have an investigation planned within the first two years of our AMP8 WINEP to review potential future changes in use of the Tyne Tees transfer, which will include the modelling required to determine what potential changes in the volume and frequency of water transferred might be. This will depend on future overall levels of demand on the Tees (whether from NWL domestic demand, Teesside industrial demand and / or the transfer to Yorkshire Water) and include consideration of Environmental Destination aspirations. We will refer to this within the environmental report to provide clarity on the next steps.</p> <p>We acknowledge receipt of the technical appendix from the EA with detailed feedback on the SEA and will respond to each of the significant issues raised therein within our Statement of Response and update our Environment Report, environmental assessments and main WRMP accordingly.</p>

Issue	DEFRA Information request	NW Response
<p>5</p>	<p>Ensure New Appointments and Variations (NAVs) are represented clearly in the plan and the plan is aligned with NAV company plans WRMPs</p> <p>New Appointments and Variations (NAVS) are required to produce a statutory WRMP. This means that when ensuring alignment with regional and neighbouring water company plans incumbents should ensure alignment with the NAV plans. The company should:</p> <ul style="list-style-type: none"> describe each transfer to a NAV in its plan and set out the contractual volumes in the planning tables, ensure properties and populations served by NAVS are not included within the forecasts in the company plan going forward. This is to prevent double counting of demand components and also overstating supply. The company should work with the NAV companies to ensure alignment of assumptions e.g., number of sites, population, property and contractual volumes. <p>We do not expect incumbents to forecast beyond the appointed sites set out in the NAV WRMPs i.e., new sites will be awarded but the incumbent will not know when and to which NAV. The company should use the WRMP cycle to update the figures and adjust forecasts accordingly.</p>	<p>We can confirm that:</p> <ul style="list-style-type: none"> properties and populations served by NAVS are not included in our demand forecast - they are only included as an export to NAVs and associated population has been removed from our total population. we worked with the NAV companies to ensure alignment of assumptions e.g., number of sites, population, property, and contractual volumes. we have not included NAV export forecasts beyond existing sites. <p>We will update figures through the WRMP cycle. Please refer to sections 4.4 and 6.3 of our WRMP24 Demand Forecast Technical Report, where we describe these points in detail.</p>

2.2 FURTHER AMENDMENTS IN RESPONSE TO ENVIRONMENT AGENCY SoR REVIEW ANNEX RECOMMENDATIONS

The following items were provided to us by the Environment Agency in a **Statement of Response Review Annex**, but not raised to Defra by them. We are therefore not obliged to address these issues, but we have incorporated amendments in response to as many as we have determined appropriate to further improve our plan. In this section, we have detailed what amendments we have made in response to these recommendations.

Issue	EA area for improvement	EA recommended changes to the plan	NW Response
<p>6</p> <p>Non-potable deficit in final plan</p>	<p>Northumbrian Water should resolve the supply demand deficit in the Kielder non-potable system in 2027-28 or set out how the risk will be mitigated, and growth will be supported. The company should include in their plan an explanation of the likelihood of a deficit in a normal year to provide context to the risk associated with the deficit.</p> <p>The revised plan contains a 0.79MI/d deficit in 2027/28 in the Kielder non-potable system (data tables line 49.1FP). The reason for this is not explained in the plan.</p> <p>There is a significant (43.33MI/d) potable surplus by 2027/28 so there may be no real risk to supplies but the company must be clear on whether the potable surplus can be used to offset the apparent non-potable deficit. We recommend this is considered alongside issues 3 and 7.</p>	<p>We suggest that the company:</p> <ul style="list-style-type: none"> acknowledge the deficit and explain the reason for it, set out the likelihood of a deficit in a normal year (as opposed to dry year annual average), set out how it will mitigate the risk and support growth -confirm whether & how the potable surplus may be used to address the deficit. 	<p>We acknowledge the minor deficit in 2027/28 for the Industrial Supply Zone. However, we confirm that the potable water surplus in the Kielder water resource zone can be used to offset this small deficit. This is because the Industrial Supply Zone is integrated within the Kielder WRZ and the yield from the river Tees (as supported by Kielder reservoir) can be used to supply either potable or non-potable demand on Teesside. This will reduce the dry year annual average headroom of the potable Kielder WRZ by just 0.79MI/d and will eliminate the deficit in 2027/28. As the potable headroom can be used to eliminate the dry year annual average non-potable deficit, then there is therefore no risk of a deficit in a normal year. We have included this text in our draft final WRMP24 in section 6.2</p>
<p>7</p> <p>Integration of the non-potable system into the Kielder water resource zone</p>	<p>The company was asked to provide a thorough narrative which explains how the non-potable system is represented in the planning tables and how the company will account for it when reporting to regulators given that it is not reflected in the supply demand balance (SDB).</p> <p>You were also asked to ensure that any references to SDB throughout the plan are as to whether (or not) the non-potable system is being included.</p>	<p>We recommend that the company add detail to the plan to explain the following:</p> <ul style="list-style-type: none"> that the non-potable system is not represented in the SDB line (50FP) of the planning tables and therefore would not be reported in standard distribution input data set out that it is dealt with via lines 1.1FP Non-potable water supplies, 12.1FP Non-potable water consumption and 49.1FP Available non-potable balance, with available non-potable balance being the non-potable equivalent of SDB line 50FP 	<p>We will update all the relevant sections of our final WRMP24 to further clarify whether we are referring to potable or non-potable demands.</p>

Issue	EA area for improvement	EA recommended changes to the plan	NW Response
	<p>Some clarification has been provided on the nature of the non-potable system, which is welcome, but there is no explanation in S2.1.2 of the plan or 2.4 of the technical report regarding representation in planning tables or reporting as suggested in the SoR response.</p> <p>SDB specific sections of the plan have been updated to distinguish between potable and non-potable as requested, however some references to SDB remain in other parts of the plan where this distinction is not made e.g. S6.5 WRMP24 baseline SDB starting position compared to WRMP19. Where the reader is familiar with the two systems context may be used to infer whether the reference is to potable or non-potable supplies, but where the reader is not familiar, or when comparing to earlier plans, the risk remains that SDB will be assumed to cover all supply and demand (including non-potable).</p> <p>Treating the two systems as an integrated zone is likely to remain an area needing careful communication. In particular the distinction between potable and non-potable distribution input and how that is now represented.</p> <p>This should align with issues 2, 3 and 6.</p>	<ul style="list-style-type: none"> record in the appendix that the Tees transfer to Yorkshire Water does not appear as an export in line 4FP (raw water exported) because this would cause it to impact on the potable system SDB record that the Tees transfer to Yorkshire Water does not appear in line 12.1FP (non-potable consumption) because the demand is not local to the Kielder resource zone (the demand originates in Yorkshire Water's resource zones) - confirm that this is intentional because the consumption line is intended to reflect demand arising within the Kielder zone explain that an adjustment has been made to the baseline non potable supply line (1.1BL) from 2040/41 in order to ensure the correct available non potable balance in line 49.1FP and that this is noted in a comment in the relevant table cell reference the appendix in S2.1.2 of the plan and the relevant technical reports <p>The company should also:</p> <ul style="list-style-type: none"> be mindful of the need to cover both the potable and non-potable supply demand balances when reporting, and to be clear which system is being referred to in all communications – continue to work with regulators to ensure reporting mechanisms account for both systems (for example, annual review tables) note that some of this content may be very specific to regulatory evaluation of the plan and how EIP targets are evaluated, it may be appropriate to submit some of this detail as an appendix to the plan. 	

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8	<p>Water transfers</p>	<p>This issue links to issue 5 regarding NAV transfers. The SoR states that transfers / bulk supplies have been reviewed and are clearly represented in the planning tables. This issue has not been addressed adequately.</p> <p>Tables 1f and 1g (transfers) remain incomplete indicating there are no transfers which is incorrect – a 4.63MI/d potable export value for Kielder WRZ is included in Table 3c (row 5FP).</p> <p>United Utilities are reporting the following transfers with NWL which are absent from NWL's tables 1f/1g:</p> <ul style="list-style-type: none"> • A 1.3 MI/d export called 'Killope Cross'. • A 0 MI/d DYAA volume (0.3 MI/d annual licence limit) import called 'Reaygarth (Brampton)' <p>We have been unable to reconcile the potable export value in Kielder WRZ (4.63MI/d) with figures provided by United Utilities and NAVS which total 5.45MI/d.</p>	<p>The company should:</p> <ul style="list-style-type: none"> • ensure all external and internal transfers are included in planning tables 1f and 1g (including NAV transfers as referenced in Issue 5) • review United Utilities revised draft planning tables and ensure that all transfers and their volumes are aligned between each company's table 1g, in particular the 'Killope Cross' and 'Reaygarth (Brampton)' transfers • provide a breakdown for the potable export total for Kielder WRZ (to enable the volume presented to be understood) • after undertaking the points above ensure tables 1f, 1g and tables 3a for each water resource zone are aligned 	<p>We confirm that our draft final WRMP24 will be updated as follows:</p> <ul style="list-style-type: none"> • tables 1f and 1g will be populated. • As per the guidance we have used the 'agreed limits between supplier and recipient companies' of 1.3MI/d export and 0.3MI/d import. We will liaise with United Utilities to ensure alignment with regards to the representation of the 'Reaygarth (Brampton)' import. • Bulk supplies breakdown is included in the demand forecast technical report. See section 9.3 for our bulk supplies and section 6.2 for NAVs.

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<p>9</p> <p>Government expectations - Leakage</p>	<p>Northumbrian Water does not forecast to meet the interim leakage reduction targets for 2031-32 and 2037-38.</p> <p>There are concerns about leakage proposals in the short to medium term. In the short to medium term the company proposes only a 7.0% (2019-20 baseline) reduction in leakage 2025-30 compared to a forecast 14.2% (2019-20 baseline) reduction in 2020-25. The company does not provide sufficient and convincing evidence that its proposals for leakage reduction are suitably optimised.</p> <p>The SoR has not adequately addressed a representation noting that the plan does not discuss the company's customer supply pipe leakage policy and that Ofwat expect companies to provide a view on the benefits of a common industry approach in their statements of response and final WRMP.</p>	<p>In the final plan the company should:</p> <ul style="list-style-type: none"> include information on whether interim targets are met. review and test a scenario to deliver 2037-38 interim reduction target and evaluate with clear evidence a more stretching ambition for leakage reduction in the 2025-30 period which should be included in its final WRMP (fWRMP) clearly state what the policy is for customer supply pipe leakage and provide a view on the benefits of a common industry approach 	<p>We are forecasting to hit our performance commitment in 2023-24 and 2024-25.</p> <p>We do not achieve the interim targets for leakage but have committed to a 55% reduction by 2050 in order to deliver a 50% reduction across the whole NWG region.</p> <p>The decision to apply a glidepath profile to 2050 has been discussed in the main WRMP report, relating to the additional cost and uncertainty of delivering reductions sooner.</p> <p>We do not plan to change our current supply pipe repair policy. At the moment we do not offer free repairs, other than to vulnerable customers, but we support them through the process of repairing their leak. We believe this is the right approach that other companies should follow, particularly as more smart meters are installed throughout the country.</p>
<p>10</p> <p>Government expectations – PCC</p>	<p>The revised plan indicates that the 110l/h/d by 2050 is met but the company inconsistently presents its forecast 2024-25 position in its statement of response and data tables.</p> <p>The revised draft WRMP data tables use a 2024-25 level that is higher than that quoted in the SoR, and the level discussed with Ofwat as part of performance reporting.</p> <p>The company uses a significantly lower estimate of the benefits of its selective metering programme than other companies, 7.1% vs 17-18%. The company were asked to justify chosen ambition of PCC reduction for 2025-30 in comparison to 2020-25 but this point remains unaddressed. This is also within</p>	<p>The company should:</p> <ul style="list-style-type: none"> clarify its 2024-25 PCC position in its final WRMP to ensure it is consistent with the narrative. consider an increase to its expected benefits from its selective metering programme in its final WRMP or provide compelling evidence why it expects to deliver lower levels of benefits than other companies. demonstrate that it is taking sufficient mitigating actions for each year of the 2020-25 price control to reduce the impacts of Covid-19 and account for this in its future forecasts in its final WRMP - especially in the context of Ofwat work to assess the impact of Covid-19 on outturn 2020-25 and forecast 2025-30 PCC levels 	<p>We have updated Table 57 of our draft final WRMP24 to clarify our DYAA PCC in 2024/25.</p> <p>Please refer to section 5.2.3 of our WRMP24 Demand Forecast Technical Report. "This assumption has been proven by analysing the consumption of historic selective households (selective metering has only ever occurred within our southern operating region ESW only) compared to the unmeasured consumption from our unmeasured consumption monitor. This has shown an average 7.12% saving due to selective metering, we would then assume a further 3% saving once the meter is smart active." Forecasted selective metered properties in our plan will come from the whole metering strategy (WAM). We have assumed ~75 properties per year will move to a billed measured property upon change of occupier (selective).</p> <p>As the benefit is from actual data for our region and we are not including selective or compulsory metering in our plan for our NW region, we do not intend to revise the benefits from</p>

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	<p>the context of NWL stating that it will miss its 2024-25 PCC target by 15.3 l/h/d.</p>	<ul style="list-style-type: none"> provide historical PCC figures (2017 onwards as appropriate) in its final WRMP relating to the northern region aligned with its water balance reporting and business plan submission. justify the PCC ambition over AMP8 in the context of its re-forecasted end position for AMP7 in its final plan and business plan 	<p>this option. If we were to use a higher assumed saving, this would not change our final plan schemes but would result in a very small marginal increase in our supply headroom. We plan to use the results from the delivery of our AMP8 compulsory metering programme in our ESW region and to apply them to our WRMP29.</p> <p>We set out a clear action plan in response to the Joint Regulators letter (October 2021) outlining a series of interventions that would support mitigation of the sustained and material impact of the Covid-19 pandemic on household demand. We shared an update on progress in the 2023 Annual Report. This highlighted our significant efforts on achieving the Action Plan and the substantial pivoting of our water efficiency strategy in 2020/21 and 2021/22 to ensure the continued engagement with customers related to water efficiency and to mitigate the impact of the pandemic and its associated lockdowns on household consumption. The new water efficiency strategy was delivered in full in 2022/23. In turn, we exceeded all actions (with the exception of online digital engagements) in the Action Plan for 2022/23. We are on track to deliver the 2023/24 and 2024/25 Action Plan.</p> <p>We have updated Table 57 of our draft final WRMP24 report to include historic PCC figures.</p> <p>Our PCC ambition for AMP8 includes water efficiency and metering strategies that effectively balance ambition with being achievable. The outlined PCC reduction in 2025-30 is more stretching than 2020-25 which reflects the need to</p> <ul style="list-style-type: none"> recover from the impact of the Covid-19 pandemic, a shock event outside our control, which increased household consumption, ensure we remain on a stretching trajectory toward 110 l/h/d by 2050 and deliver significant household demand reductions before the necessary impact of Government-led supportive policy change interventions take effect, as outlined in Defra’s 10 point roadmap to water efficiency.

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<p>11</p>	<p>Government expectations – Metering</p>	<p>The company was asked to provide sufficient evidence that its preferred meter technology and rate of metering is optimal over the long term. This point was considered partially addressed by the SoR.</p> <p>Preferred metering technology and benefits are described. Reference is made to a shortage of chips in AMP7 affecting choice of preferred smart meter technology. However, there remains lack of clarity regarding whether the balance of technologies and rate of metering are optimal, and whether the anticipated failure to meet WRMP19 targets may change the new plan baseline.</p> <p>The response also does not address a point raised regarding how the programme will be monitored and any mitigation the company will put in place if the measures are not being delivered as expected. There remains limited detail on this point.</p>	<p>The company should:</p> <ul style="list-style-type: none"> • include a monitoring plan for its demand management strategy, to review and respond to success of its activity programme. <ul style="list-style-type: none"> • provide additional detail in the final WRMP and business plans in regard to whether or not the selection of technology, and rate of metering, remain optimal 	<p>Please refer to our response to point 12 where we have summarised how we monitor, report, and adjust our tactical plans to address underperformance of our demand management programmes. In summary, meter installation volumes are reported monthly, and we hold quarterly review meetings to monitor progress against the target. Actions are implemented accordingly to increase installations should we fall behind target. This may include changes to the installation mix (e.g., dialling up or dialling down proactive installs in the place of new installs or trigger marketing campaign activity to drive inbound customer demand for meters). This drumbeat of progressive governance is already in place and effective in driving install mix optimisation. We will also keep in place our Smart Programme Board which has membership of three of our Executive Leadership Team and key stakeholders from the business to ensure continued governance and oversight of performance. Progress will continue to be reported in our Annual Report. The development of near real time data dashboards is in progress which will show the impact of smart meter installations on PCC, water demand and customer side leakage allowing us to confidently report MI/d benefits associated to smart meter installations. We will include a summary in our final WRMP24.</p> <ul style="list-style-type: none"> • We are confident that the LoRaWan solution remains our optimal technology as it has exceptional battery life with a 10-year warranty and 15-year expected life. It maintains 30 reads (hourly + nightline) per day and trans up to 3 times per day. Itron is our primary meter supplier chosen due to a number of key features: <ul style="list-style-type: none"> ▪ the ability for the meter to operate in both AMI and AMR mode simultaneously meaning that in the event of non-communication from the meter we can collect a reading via walk by or drive by. (not available from any other meter provider) ▪ the ability to take both hourly readings and in addition 15-minute readings across the nightline (2am – 4am) aiding more accurate customer side leakage detection. (not available from any other meter provider) ▪ lowest minimum flow to trigger measurement.

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			<ul style="list-style-type: none"> ▪ integrated meter and smart point making installation easier and faster than meters with separate communication devices. ▪ Proved to be the cheapest per unit cost to meet our requirements. ▪ offered the fastest lead time from order to delivery in first year of contract. <p>We continue to consider that the rate of metering is deliverable and optimal and will provide further information on this in our final WRMP24. Whilst we are not forecasting to meet our WRMP19 targets for meter installations, we have demonstrated progressive year on year increases in install volume which provide confidence we can scale our operational capability sufficiently to meet AMP8 targets and therefore there is no plan to change the baseline plan for AMP 8. We have laid strong foundations in internal capability, system change, organisational design, and partnerships to ensure we are in a strong position for success. We are also in the process of tendering for install partners framework contracts which will deliver flexibility to scale resource and install volumes from the end of AMP7.</p>
12	<p>Risk of demand measures delivery and monitoring and reporting of the plan</p>	<p>The company has confirmed that they have followed adaptive planning principles and concluded that no adaptive pathways are required, additional explanation has been provided to make that distinction. The company was asked to explain risk to supply or level of service if demand measures in the early years do not achieve the savings required to offset the baseline deficit.</p> <p>The statement of response and revised plan do not address this point sufficiently and the implications of failure to deliver the demand management programme are not fully clear.</p>	<p>The company should:</p> <ul style="list-style-type: none"> • ensure the plan explicitly covers risk of non-delivery of the forecast demand savings – it should indicate to what extent the demand measures could fall behind forecast while still allowing NWL to: <ul style="list-style-type: none"> - maintain a supply surplus - maintain planned levels of service - meet EIP targets <p>Risk of non-delivery:</p> <p>We have a high level of certainty that we will be able to deliver the leakage reductions (Ml/d) and number of smart meters forecast in our final plan. We acknowledge that there is a greater level of uncertainty with the demand savings associated with both household and non-household behavioural change given that we can only influence it and not control it. This is why it is so important that behavioural change is seen as a challenge for the industry, government, and wider stakeholder and why we must all work together to ensure customers and businesses understand the environmental and economic need to reduce their consumption and importantly to act on it.</p>

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	<p>The company's demand strategy has no detailed monitoring plan outlined to review the success of its demand and leakage reduction activities. The company should include a monitoring plan for its demand management strategy, to review success of its activity programme and constituent components. Outcomes from monitoring will keep the company on track and could inform adaptive plan decisions for WRMP29.</p> <p>Outside of the plan the company should work with regulators to ensure a regular programme of monitoring and reporting is set up to deliver via liaison meetings and annual review. This should include monitoring of metrics, projects and timescales. NWL should pay particular attention to reporting for the non-potable system within the Kielder zone, and whether growth in the area appears to be in line with forecasts. Where performance or delivery is behind the company's forecasts reporting should also provide reasons, lessons identified, and a plan of action to address the issues.</p>	<ul style="list-style-type: none"> • set out any actions and triggers that would be taken in the event of demand side options failing to deliver the savings planned; • set out its approach to recording, monitoring, and reporting data to ensure that monitoring leads to informed interventions; • set out how it will assess the success of the demand management activities – this should include total contribution to demand savings, a breakdown of the specific savings for each measure, and how observed savings compare to assumed benefits 	<p>Extent demand measures could fall behind while still maintaining a supply surplus:</p> <p>The extent the demand measures could fall behind forecast while still allowing NWL to maintain a supply surplus and our 1 in 500 year levels of service is determined by our SDB headroom. Our final plan SDB headroom in 2025/26 is 53.68Ml/d which is a ~30Ml/d increase from baseline. Of this headroom, drought action levels of service demand savings account for 24Ml/d as these are not included in the baseline SDB. The remaining 6Ml/d of SDB headroom is from our demand management savings. We will update our final plan to include a table which summarises the supply headroom in each year of AMP8.</p> <p>Monitoring, Reporting and Interventions:</p> <p>We recognise the importance of monitoring the performance of our demand management programmes, specifically in relation to leakage reduction and household and non-household consumption. Our Water Service Planning function is responsible for monitoring and reporting our outturn performance against Performance Commitments (PCs) and Outcome Delivery Incentives targets through weekly reporting and monthly and annual score cards. Monthly and annual performance information is reported to our Water Leadership Team and Executive Leadership team and importantly to our Strategy and Tactical teams who adjust our strategies and / or short and medium term tactical plans to rectify any under-performance. We have also made a commitment to the Environment Agency to discuss our latest leakage and consumption performance at our quarterly Environment Agency Liaison Meetings. Additionally:</p> <ul style="list-style-type: none"> • Leakage performance is monitored weekly against a target profile to assess the current position and to influence any changes required to operational delivery. The annual average level of leakage is reported to Ofwat as part of APR and compared to our performance commitments to identify whether we are on or off track to meet our target reductions. We are currently, alongside all water companies, providing quarterly updates on performance to Ofwat. • Actual meter installation numbers against target numbers are reviewed monthly and reported to Metering and

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		<ul style="list-style-type: none"> include reporting of non-potable demands to ensure growth is not constrained and actions to mitigate potential shortfalls are implemented in timely fashion 	<p>Customer leadership teams. As with leakage, our operational / tactical plans are adjusted to rectify any underperformance. For example, this may include changes to the installation mix e.g., dialling up or dialling down proactive installs in the place of new installs or trigger marketing campaign activity to drive inbound customer demand for meters. This drum beat of progressive governance is already in place and is effective in driving install mix optimisation.</p> <ul style="list-style-type: none"> The development of near real time data dashboards is in progress which will show the impact of smart meter installations on PCC, water demand and customer side leakage allowing us to confidently report MI/d benefits associated to smart meter installations. Performance of each water efficiency option, in terms of volume of activity and water saved, is monitored monthly in detail to ensure we remain on target. Progress also feeds into a PCC Tactical Plan which in turn is monitored monthly through our PCC Focus Group which is chaired by our Customer Director. On an annual basis, all volumes of activities and water savings from water efficiency options are recorded in our Water Efficiency Target Tracker (WETT). Non-potable demands are reported as part of the Annual Review process, along with any changes to the available non-potable supply. <p>Non-potable demands:</p> <p>We are committed to closely tracking non-potable demands both via water supplied and by ongoing liaison with industrial businesses. We will also continue to work closely with Water Resources North and its Energy Sector sub-group to ensure our demand forecasts remain up to date. WReN is currently in the process of refreshing membership of this group and intend to have a Teesside representative on the group. Additionally, non-potable demands are reported as part of the Annual Review process, along with any changes to the available non-potable supply.</p>

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			<p>WINEP:</p> <p>Delivery of all our WINEP schemes is monitored through our WINEP tracker tool with underperformance reported to our Water Asset Policy Group where tactical plans may be adjusted. Performance is also reported to the EA through our quarterly WINEP Joint Management Group and to the quarterly EA Senior Managers Meeting which is chaired by the EA's area Director.</p>
13	<p>Population forecasts</p>	<p>The company was asked to provide evidence in final WRMP that the revised population forecast for WRMP24 is reliable and why it is different to WRMP19. The SoR does not appear to address this point.</p> <p>Population forecasts for the rdWRMP are provided in the WRMP tables, but there is no commentary provided in the company tracker. NWL has not provided any information or evidence that addresses this point.</p>	<p>The company should:</p> <ul style="list-style-type: none"> • update the WRMP to address this point. • provide a clear comparison of the WRMP24 and WRMP19 forecasts and the reasons behind any differences
14	<p>Directions</p>	<p>The company is considered to have done enough to pass the Directions; however, some aspects of the responses are unclear and could be improved. 3(c) Text added to section 2.4 outlines the 'trigger levels' well for Berwick & Fowberry but, apart from the reference to reservoir groups, the same information associated with Levels 1, 2 and 3 is not set out for Kielder Resource Zone.</p> <p>3(f) Information is provided on proportion of new smart meter installations but there is no indication of the proportion of smart meters to other meters for the whole</p>	<p>The company should:</p> <ul style="list-style-type: none"> • 3(c) – clarify the link between reservoirs and triggers for drought actions in the Kielder zone, add a description of how the reservoir groups described have control curves that enable triggers for action to be derived. • 3(f) set out the proportion of smart versus not smart meters over time (not what proportion of new installations will be smart but what proportion of all metered properties will have a smart meter (this should be aligned to data in table 2c etc). <p>We have expanded the description in Section 2.4 of our draft final WRMP24 to give a high level overview of control curves and how they are used operationally.</p> <p>Section 3.2 of the Metering Technical Report will now show the percentage of smart and non-smart meters on a yearly basis across AMP 8 & 9.</p>

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	<p>metering stock (inclusive of existing meters).</p> <p>3(h) Information has been improved but indicates only installations in AMP8. To confirm the total number of properties not charged by reference to volume NWL should state that there are not any properties currently metered but not billed and provide AMP9 figures.</p> <p>3(m) remains unclear. The 3-year average value (135.8MI/d) is used as the baseline but the text in 7.2.1 states that NWL have used 17/18 as baseline 'rather than 3-year average'.</p>	<ul style="list-style-type: none"> 3(h) confirm the total number of properties not billed by reference to volume, not just new installations. 3(m) - review the definition of baseline and confirm the figure used is the 3-year rolling average (Ofwat) figure, revise the narrative to accurately describe the origin of both the baseline leakage figure and how the 50% will be assessed 	<p>We have now referred to the number of properties not billed by reference to volume in Table 37 in the draft final WRMP24 main report.</p> <p>The 50% leakage reduction target by 2050 is applied to the 2017/18 shadow reported figure (135.8MI/d), in line with the methodology for the national target reduction.</p> <p>The PR24 leakage targets are then converted into the percentage reduction of the 3-year average compared to the 3-year average of the shadow reported figures in 2019/20.</p>
15	<p>Dry year critical period</p> <p>The company was asked to address lack of critical period data and clarify their normalisation methodology.</p> <p>Though improved, the explanation of the removal of summer months in normalisation and the process for doing this is not explained in a way that a customer would easily understand. Whilst not material to the plan, the methods and assumptions informing the plan should be clear enough for the reader to understand.</p>	<p>We suggest that the company:</p> <ul style="list-style-type: none"> set out the normalisation methodology in simple language, with the method, assumptions and values set out to enable a customer to understand the derivation of the critical period and what normalisation achieves. review Figure 28 and Table 46 (Berwick & Fowberry WRZ Final Plan DYCP) as the supply demand balance plotted appears to be greater than values provided in table 46, and the values given in Table 46 do not match those provided in the planning data table (table 3f). 	<p>The normalisation process is described in our demand forecast technical report (section 10.2) and due to the technical nature, we included a simplistic approach to describing critical period in Section 4.1 of the main report for our customers.</p> <p>As part of revising the Berwick & Fowberry deployable output from 2027 (please see Issue 1), we will ensure all graphs and tables in our report, and the WRMP EA planning tables are updated.</p>

Issue	EA area for improvement	EA recommended changes to the plan	NW Response
<p>16</p>	<p>Pollution and sewage discharge events</p>	<p>Comments were raised regarding an expectation of seeing pollution and sewage discharge events addressed in final WRMPs. The SoR does not address this issue.</p> <p>While sewerage activities do not fall under the WRMP remit there can be pollution activity at water treatment works and pollution events can affect the availability of water so we would expect NWL to respond to this point.</p> <p>From the context in the representation, it is probable that the type of events the respondent has in mind will fall under drainage and wastewater management plans. It may be appropriate to clarify the scope of WRMP and signpost to other planning processes to ensure those reading the plan are aware of what is in scope.</p>	<p>The company should</p> <ul style="list-style-type: none"> • update the WRMP to respond to the point raised in the representation. • consider whether signposting to drainage and wastewater management plans in the WRMP would be useful for stakeholders and customers. • set out how the company deals with pollution incidents attributable to water resources assets. <p>We signpost readers of our WRMP24 to our Drainage and Wastewater Management Plans in section 1.6.5. However, for clarity, we have added an explanation of the scope of WRMPs and DWMPs.</p> <p>Pollution events are incorporated into the supply demand balance in two areas:</p> <ol style="list-style-type: none"> 1. Any unplanned discharges from water resources assets are self-reported to the Environment Agency, immediately investigated and mitigated until resolved. Measures are identified and put in place to prevent a recurrence. A detailed report is then submitted to the Environment Agency, who review the actions taken. 2. The risk of pollution impacting a resource is assessed and quantified as part of the Target Headroom Allowance, which is determined as part of the Water Resources planning process and included in the supply demand balance. Historical incidents are included in the Outage Allowance, which is a forecast of future outage, and incorporated into the Water Available for Use (WAFU) calculation as a deduction from deployable output.
<p>17</p>	<p>Issues raised by Waterscan were not addressed in the SoR</p>	<p>Waterscan made several points in their representation which were not addressed by the SoR.</p> <p>The SoR appears to have focussed on a single point. This point was highlighted in the representation as specific to NWL, whereas other points typically appeared to be directed at the industry, but it is not clear from the SoR if this is the reason that other points were omitted.</p>	<p>The company should review the points made and consider whether any amendments to the WRMP are required.</p> <p>Waterscan produced general feedback on the industry’s draft WRMPs as a whole along with the one specific comment on our Northumbrian Water dWRMP, which we addressed in our SoR. We have reviewed the general feedback provided and whilst we have not identified any further amendments to improve our WRMP24, we will look for opportunities to incorporate the feedback into our process and policies going forward and reflect that in our WRMP29 submission.</p> <p>We have responded below to each of the general feedback areas in Waterscan’s consultation response:</p> <p>2.2.1 Targets:</p> <p>Targets are described in the following sections of our Revised draft Water Resource Management Plan.</p> <ul style="list-style-type: none"> • Section 8.3 Our Final Best Value Plan • Section 8.5.2 How we met our WRMP24 objectives.

Issue	EA area for improvement	EA recommended changes to the plan	NW Response
			<p>Our Best Value Plan objectives are as follows:</p> <ul style="list-style-type: none"> • Achieve a secure, resilient, and sustainable supply of water for our customers, moving to a 1 in 500 level of resilience by 2049/50; • Protect and enhance the environment, ensuring our abstractions are sustainable both in the short and long term; • Reduce leakage from our network and from customer’s homes, contributing to a national target of 50% reduction from 2017/18 levels by 2049/50; • Reduce household customer demand to 110 l/head/day by 2049/50; • Reduce non-household customer demand by 9% by 2037/38 (excluding growth); and • For all our meters to be smart meters by 2035. <p>Our objectives have been developed and aligned with:</p> <ul style="list-style-type: none"> • Our own Purpose, Vision, and Values • Our current performance commitments and Outcome Delivery Incentives (ODIs) • Water Resources North’s regional plan objectives • Government expectations for water companies WRMP24s including outcomes of the 25 Year Environment Plan and our local River Basin Management Plans; and • The overall requirements of the PR24 Water Resources Planning Guideline. <p>2.2.2. Environmental Action:</p> <p>We welcome the feedback from stakeholders regarding our Greenhouse Gas Emissions – NWL and ESW place the environment at the heart of everything we do as a business, so our role in protecting the environment is not new for us and forms part of our company’s purpose.</p> <p>Since 2008 we have published our Operational Emissions in accordance with the industry standard approach, further since 2019 we have had our emissions audited in accordance with ISO14064-1 meaning we have confidence that our reported emissions are a reasonable record of our climate impact.</p>

Issue	EA area for improvement	EA recommended changes to the plan	NW Response
			<p>Last year, we have published our Environment Strategy. Within this strategy we commit to signing up to additional standards – notably we commit to taking all reasonable steps to attaining Science Based Targets Initiative accreditation.</p> <p>Additionally, phasing out new fossil fuel vehicles by 2035, ensuring 100% of our electricity will come from additional renewable generation by 2040, reducing embodied carbon by 50% for new assets by 2040 (from a 2025/26 baseline), and publish plans in place to adapt to a world that is 2°C warmer in 2050 and prepare for 4°C by the end of the century.</p> <p>2.2.3. Pre-Emptive Work:</p> <p>Waterscan commented that water companies who have an immediate surplus of water should place greater emphasis on innovation to channel investment into preventive measures and scoping projects that the industry as a whole would benefit from. In the case of Northumbrian Water, we have a supply surplus in our Kielder water resource zone which is provided by the currently under-utilised Kielder reservoir and the Tyne Tees Transfer.</p> <p>Our preferred plan includes a 140MI/d export of raw water from the Kielder water resource zone to Yorkshire Water although this is not needed until 2040. In AMP8, we will progress the Kielder Strategic Resource Options (SRO) with Yorkshire Water and United Utilities. This will progress the feasibility and design of the 140MI/d export to Yorkshire Water as well as an alternative 100MI/d raw water export directly from Kielder Reservoir to United Utilities. As part of the SRO, we will also consider how Kielder reservoir could facilitate exports to water companies / regions further south.</p> <p>Our preferred plan also includes our demand management options to reduce leakage and household customer and non-household business demand. These interventions create additional headroom which can be used to supply future, currently unknown demand (for example, over and above what we are forecasting for industrial Teesside), as well as for exports to support other regions forecasting supply deficits.</p>

Issue	EA area for improvement	EA recommended changes to the plan	NW Response
			<p>At Northumbrian Water, we believe in innovation and over the years have grown our Innovation Festival into an industry leading and world renowned event. Our 2024 festival takes place between 8-11 July 2024 and brings together innovators from all over the globe. The eighth iteration of the event will see attendees from the worlds of science, technology and more, coming together at Newcastle Racecourse to solve some huge environmental and societal challenges. The theme for this year’s festival is ‘Speed and Scale’ and will focus on growing good ideas at pace and will also help to progress on existing ideas from previous festivals. Sprints are delivered each year focusing on water efficiency. At the 2023 Innovation Festival we delivered a sprint, sponsored by Wave, which focused on innovative solutions to support non-household demand reductions. We are progressing with one of the solutions.</p> <p>2.3.1. Pollution Events These are addressed in issue 16 above.</p> <p>2.3.2. Partnership Work: Waterscan commented that there is significant scope for more intensive, targeted partnership work under the umbrella of nature-based solutions, but it was not made clear how Wholesalers plan to engage with different stakeholders and under what terms. Northumbrian Water is a strong advocate of partnership working. A good example of this is the partnership with the Rivers Trust who we have teamed up to form the North East Catchments Hub, a new approach to drive work that will inform investment to benefit water and the environment in the region. This partnership brings together local, regional, and national expertise in a regional hub to develop improvements for water quality and the wider environment around the North East.</p> <p>Waterscan also commented that wholesalers need to play a greater role in researching the key challenges facing the water industry by working with collectives. A good example of this is the National Leakage Research Centre where we are the lead water company partner.</p>

Issue	EA area for improvement	EA recommended changes to the plan	NW Response
			<p>2.3.3. Working with Retailers:</p> <p>Working in partnership is key to driving deeper and sustainable water efficiency impact. Taking a collaborative approach with various partners and stakeholders including retailers will be fundamental to reducing Business Demand by 9% by 2038</p> <p>Up to and after 2025 we will continue to interact to identify the best ways of delivering together with Retailers. Discussion focused on the relationships Retailers have with their customers could lead to a higher level of engagement, with funding required for Retailers to take this on over and above their current level of engagement. We will continue to build on these relationships, with a concerted effort on driving long-term and impactful relationships with water retailers.</p> <p>2.3.4. Impacts on Other Stakeholders:</p> <p>Waterscan asked that water companies provide further detail on how their WRMPs will affect other stakeholders, particularly Non-Household (NHH) businesses. In summary our Northumbrian Water WRMP24 final plan:</p> <ul style="list-style-type: none"> - Metering strategy will mean that all NHH businesses will be billed by the amount of mains water that they use and so if they don't have a meter now, they will have a smart meter installed by 2035. Businesses who already have a non-smart meter will have it replaced with a smart meter by 2035. We believe that paying for the amount of water used is a fair way and will encourage the efficient use of water. Metering of businesses is covered in Section 7.2.2 of our revised draft WRMP24. - includes a national target to reduce business water demand by 9% by 2038. To do this, our WRMP24 includes a new water efficiency strategy for non-household businesses. This includes measures to support business' in reducing their demand including provision of information to make better decisions, support with leaks and simple solutions for different types of users. Some business' will grow over the coming years and may be forecasting an increase in their overall annual mains water requirements.

Issue	EA area for improvement	EA recommended changes to the plan	NW Response
			<p>Consequently, we request that these businesses grow their businesses with water efficiency in mind and consider water minimisation, rainwater harvesting, reuse and recycling.</p> <p>2.3.5. Smart Metering: Plans, Data, and Messaging:</p> <p>Smart metering for the NHH portfolio is still in its infancy in design but we continue to work closely with UK water companies to define what good looks like and collaborate on the MOSL National Metering Strategy.</p> <p>Our ambition is to replace all NHH traditional meters across all 3 supply regions by 2035. Our deployment strategy will be to align household and non-household rollout together to optimise use of field resource on a DMA by DMA approach. We will focus our attention on the most water stressed Water Resource Zones and DMAs with the highest leakage to ensure we can deliver the most value through smart meters. We will also prioritise effort on including replacing meters that are currently 'long unread', 'hard to read', broken, etc.</p> <p>Our meters will take data on an hourly basis with a 15-minute night line and there will be no charge for this data, however at present it has not been agreed how this data will be made available and shared; this will be decided once the NHH National Metering Strategy project delivers its recommendations at the end of March 2024. Initially it will be 1 billing reading per month uploaded to CMOS under the terms of the CP142 change proposal which makes wholesalers responsible for meter reading submission for settlements purposes, where a smart meter is installed at the property. We recognise that some NHH customers have chosen to have loggers fitted to their meters to provide more granular data and we will ensure that our future smart meters continue to allow this addition.</p> <p>Smart Meters are a really effective tool to influence customers behaviours and promote water efficiency and also to identify customer side (i.e., within property) leakage. Once we get smart meters at scale, we can also manage the leakage on our network much better as we can more easily determine</p>

Issue	EA area for improvement	EA recommended changes to the plan	NW Response
			<p>what’s real consumption and what’s being lost to leakage. They are not a “silver bullet” and some customers are very reluctant to change behaviour, but at scale the evidence suggests that they have a positive impact.</p> <p>Driving down leakage and improving water efficiency is a cost effective way to contribute to achieving supply demand balance. In order to effectively manage supplies in an increasingly climate stressed world we need to reduce water consumption and drive down leakage. We’re focussing our main efforts on deploying smart meters to our most water stressed areas first.</p> <p>Data from smart meters is classed as persona data and managed as such by water companies in a secure way – only fully anonymised and or aggregated data would be shared, and only where this would be for the benefit of the customer.</p> <p>2.4. The Need for a Major Cultural Shift in the Water Market:</p> <p>Waterscan commented that, “It is jarring that the more water a customer (particularly a NHH customer) uses, the cheaper this vital resource becomes. We expect Wholesalers to be much more proactive in reversing these perverse incentives in the final WRMP24s.”</p> <p>For Northumbrian Water, we have worked to reduce the large user discounts granted so the volumetric rate does not reduce by as much as demand increases. The existing large user tariff discounts that companies apply are cost reflective to recognise that large users do not use as much of the local smaller pipe network.</p> <p>For household metered customers, there is a single volumetric rate by region, so increased consumption will always translate to higher bills. We are considering a rising block tariff approach for households as a trial for 2024/25. Should this work, we would consider how it might be translated to the NHH charges.</p> <p>In line with the national target, we plan to reduce existing business demand by 9% by 2038 (excluding growth). To support businesses in doing this, we have developed a non-</p>

Issue	EA area for improvement	EA recommended changes to the plan	NW Response
			<p>household water efficiency strategy which is summarised in Section 7.2.3 of our revised draft WRMP24.</p> <p>2.5.1 Inaccessible Plans - Barriers to Engagement</p> <p>We note Waterscan’s comments and made some revisions to our Customer Summary for our revised draft WRMP24. We will review our WRMP report and Customer Summary for their suitability for our audience and make improvements for our WRMP29 submissions.</p>
18	Customer education	<p>The company was asked to improve the plan with respect to customer education, highlighting customer research that revealed that “a focus on education was something that was felt to be potentially missing”.</p> <p>This was addressed by updating the customer summary with a greater focus on education which, while useful, is thought to be a misinterpretation of the point raised and not wholly adequate. Our interpretation was that greater focus on education is required by the company on a day-to-day basis rather than a need to highlight the proposed education programme more clearly in the non-technical summary.</p>	<p>We recommend that the company:</p> <ul style="list-style-type: none"> • update the plan to show educational materials available – signposting and linking to materials held elsewhere is acceptable. • consider additional ways to extend education to customers and research with customers into what educational information is required <p>We have updated our WRMP24 Water Efficiency Technical Report to include additional information about our customer education programmes, including a description of our current and planned educational activity as part of our AMP8 plan.</p>
19	Data tables	<p>Throughout this WRMP cycle there has been concern about the level of detail and accuracy applied to the WRMP data tables, which has included missing, incomplete, and resubmitted data. This must be resolved for the final WRMP without reliance on resubmission of tables</p>	<p>The company should ensure that final plan data tables are accurate prior to submission.</p> <p>We note this feedback from the Environment Agency and will ensure accuracy of final plan data tables before submission using our internal assurance process.</p> <p>Our purpose places the trust of our customers at the heart of everything we do and we recognise this means that they need to be able to have confidence in the data we report. The WRMP24 process has been challenging with significant changes to the data tables from WRMP19, amendments to guidance and requirements from Govt and regulators during the process, which we have often needed to reflect at short notice. We consider that our data tables are of a good standard and in line with quality provided by other water companies.</p>

Issue	EA area for improvement	EA recommended changes to the plan	NW Response
			<p>For WRMP29 we will introduce a three line of defence model that has worked well for us for APR, this has an identified data provider, data reviewer and assurance provider assigned for each block of data. The assurance provider will be allocated based on risk and could be our own Internal Audit Team or our Technical Assurance Partners – currently PwC.</p>

2.3 FURTHER AMENDMENTS IN RESPONSE TO ENVIRONMENT AGENCY SEA TECHNICAL APPENDIX RECOMMENDATIONS

The Environment Agency has provided us with their ‘**Statement of Response SEA Technical Appendix**’ referred to in their advice to Defra with regards to their feedback on our Strategic Environmental Assessment. In this section we have detailed where we will incorporate amendments in response to these recommendations.

Item	Issue	EA recommended changes to the SEA	NW Response	
1	<p>Include new supply option in the environmental assessments.</p>	<p>Proposed works to reinstate a mothballed water treatment plant (requiring abstraction licence changes and installation of eel screens) have not been assessed under the SEA or included in the assessment of the preferred plan. This was not identified in our original assessment of the SEA as the proposed works were introduced at the revised WRMP stage.</p>	<p>Include the proposed works as a new supply option in the environmental assessments</p>	<p>The supply option is to re-commission our mothballed Low Worsall raw water pumping station on the River Tees. For clarity, the option does not involve any mothballed water treatment plant.</p> <p>We are currently undertaking the full suite of environmental assessments (SEA, WFD, HRA, INNS, BNG, Natural Capital) for the option (where scoped-in), including cumulative and in-combination assessments, where appropriate, and we will include the relevant outputs in an updated version of the Environment Report and associated appendices. This work will be completed by 23 April. The updated report will be submitted to DEFRA and published on our website.</p>
2	<p>Clarify the cumulative and in-combination effects assessment of the draft WRMP – extend the scope of the Policies, Plans and Programmes review to consider all relevant plans, projects, and permissions.</p>	<p>The cumulative and in-combination impacts assessment remains unclear, and the scope of the PPP review does not appear to include all relevant options and plans.</p> <p>Reference to recent updates to the NPPF has been added to the PPP review. Cumulative effects assessment is included in the revised SEA ER but this focusses on demand management options, is high level and limited in its effectiveness due to no confirmed locations for demand</p>	<p>The scope of the PPP review should be extended to consider the issues arising in other neighbouring water company WRMPs and other water related plans in greater detail to identify cumulative effects of other company and regional plans more clearly.</p>	<p>We have updated the scope of the PPP to include (as appropriate and / or where publicly available):</p> <ul style="list-style-type: none"> • Final WReN Regional Plan • Yorkshire rdWRMP & DWMP • Scottish Water Strategic Plan • United Utilities rdWRMP & DWMP <p>We have considered these plans in our updated cumulative effects assessment / review, that also includes the new NW Supplying Teesside Industrial Water option.</p> <p>We continue to work with Yorkshire Water to ensure that our final plans and environmental assessments are</p>

Item	Issue	EA recommended changes to the SEA	NW Response
	<p>management options and does not cover neighbouring WRMP's or regional plans. Although the transfer to YW is included (though see Item 3 below).</p> <p>It is not clear if the scope of the PPP review includes DWMPs or SRO's.</p>		<p>consistent following the Defra feedback to our respective companies.</p>
<p>3</p>	<p>Justify the selection of the preferred plan and demonstrate clearly how the SEA has influenced development of the plan.</p> <p>Some relevant updates were made but overall, this point is not considered to be adequately addressed.</p> <p>General information on how the SEA process has been incorporated into the development of the plan is provided but limited information is included on how the SEA has influenced the development of the plan, including option assessment and selection. For example, cumulative assessments are included in section 6 but are high level because of limited location information available for DMOs. No HRA/WFD/BNG assessments are included for DMOs so it is not clear how environmental assessments have informed the plan.</p> <p>Plan level alternatives are described in section 2.2 which explains that the 3 alternative plans (least cost, Ofwat Core plan and Best Environment/Society plan) all have the same outcomes as the best value plan and therefore haven't been considered</p>	<ul style="list-style-type: none"> The SEA report should include environmental assessment for the demand management options – DMOs such as mains replacement have potential for impacts. Include all the evidence i.e., results of the high-level screening, assessment tables of all options considered (not just the 5 supply options not taken forward), and assessment of the preferred plan and alternatives. Clarify whether there are alternatives to the temporal implementation of the plan that could be considered. Information on whether there are alternative options considered for supporting the Yorkshire Water transfer should also be presented. If no option alternatives exist this should be stated. (For example, which source was selected and why? Will it be a new abstraction or infrastructure? Would that differ dependent on location and therefore have different impacts?) Expand the justification for selecting the preferred plan over other options. Clearly setting out how the SEA has influenced the WRMP. 	<ul style="list-style-type: none"> Additional text has been included throughout the Environment Report (primarily within Section 4 to outline how the SEA assessments have fed into the WRMP decision making process. We will make available the Demand Management Options and Supplying Teesside Industrial Water SEA assessment matrix spreadsheets, which provide additional information about the environmental impacts considered. Please note that the DMO options are considered as packages and not mutually exclusive options, therefore the SEA Assessments have been undertaken on this basis. No further information regarding specific locations of individual DMO items within the 'packages' are available; therefore, no further assessment can be provided. The Environment Report has been updated to include information from the DMO Best Value Planning Technical Report to outline how the plan has come together from an EBSD point of view. Additional text on the potential for alternatives to temporal implementation has been included in Section 4.1, and justification for the selection of the preferred plan will also be included throughout Section 4. As part of Yorkshire Water's Best Value Planning approach, they undertook cost benefit optimisation modelling that looked at a number of different options to reduce their supply deficit in their Grid

Item	Issue	EA recommended changes to the SEA	NW Response
	<p>further. It is not clear whether there are alternatives to the temporal implementation of the plan that could be considered or whether alternative options were considered for the YW transfer option.</p> <p>Justification for selecting the preferred plan is outlined in section 6.6 but this mainly just states the plan meets objectives – it doesn't state how, or why this should be selected over other options.</p> <p>Note the revised plan includes an option not considered in the SEA as set out in item 1.</p> <p>The lack of information on alternative plans in the SEA and a clear outline of the reasons for selecting the preferred options and ultimately the dWRMP 24 is a potential compliance issue.</p>		<p>WRZ, this is presented in Section 9 of their WRMP: https://www.yorkshirewater.com/about-us/resources/water-resources-management-plan/ . In terms of alternative options for Northumbrian Water to support the transfer, only the Tees was considered due to the geographical proximity to Yorkshire Water's supply area and the existing infrastructure in place to regulate the Tees (Cow Green reservoir and the TTT) to support the transfer to YW. We have added this text to our draft final WRMP24 in section 7.3.3.</p>
4	<p>Improve detail regarding the study area and baseline information.</p>	<p>The study area may not be appropriate to assess all potential significant effects and the baseline information used in the SEA process is incomplete. The issues raised have been partially addressed.</p> <p>The fact that effects may go beyond the boundary of the NWL supply area is acknowledged both in Section 3 and Appendix D, and again in Section 4. It is noted, however, that the maps in</p>	<ul style="list-style-type: none"> • Provide further detail on how impacts on receptors within YW's area have been assessed. Describe the overlap with WReN and YWS SEA to ensure the impacts of NWL operations and potential YWS transfers are fully assessed in terms of receptors both within and outside of the NWL appointed area. • Include a sub-section on spatial scope in the SEA. This should show the full spatial extent of the environmental receptors depicted in the baseline information maps in Appendix D, not just the extent within the NW's supply region (or fully explain why these aren't included in the NWL appointed area SEA, where this information would be found and how it has informed the NWL appointed area SEA <p>Further text has been added to help clearly define the spatial scope of the SEA assessment, including how assessment of impacts outside of the NWL area is considered.</p> <p>We have updated the baseline maps to show the full extent of receptors which are transboundary (i.e., cross water company areas).</p> <p>We continue to work with Yorkshire Water to ensure that our final plans and environmental assessments are consistent following the Defra feedback to our respective companies.</p>

Item	Issue	EA recommended changes to the SEA	NW Response
	<p>Appendix D only show the extent of the environmental receptors within the NW's supply region. Sections 4.1 and 4.5 reference buffering to consider impacts on receptors outside of NWL appointed area, although does not appear to cover the Yorkshire Water (YW) area. The wider receptors and how covered within the WReN or YWS assessment should be described to ensure the full spatial extent is explained.</p> <p>Baseline reflected in the Environmental Report (ER) is high level and does not appear to include consideration of the condition of receptors except for water quality (WFD indicator).</p> <p>Key issues identified for each baseline topic do not appear to be presented in the SEA ER. There isn't a clear correlation between the review of the baseline information (present and future) and the identification of key issues.</p> <p>The SEA report should include a specific sub-section titled "geographical or spatial scope of the SEA" where the geographical context is clearly identified. The description of the geographical area needs to reflect that the SEA study area is comprised by the supply area plus the areas of cross-boundary effects identified</p>	<p>i.e., how was the external information used in decision making)</p> <ul style="list-style-type: none"> • The baseline reflected in environmental report does not adequately consider the condition of the baseline. • Present key environmental problems / issues for each of the SEA topics and link these to the SEA Objectives in Table 3.2 	<p>We have added information about key environmental risks and opportunities (similar to other WRMP/WRE/WReNs) into Section 3.4.</p> <p>We have updated the Environment Report in line with the comments. We will make available the SEA assessment matrix spreadsheets on request, which will help to show how the assessments are completed on a receptor basis and consideration of the condition of the baseline.</p>

Item	Issue	EA recommended changes to the SEA	NW Response
	through the HRA and WFD assessments.		
5	<p>Mitigation measures should be presented in line with the mitigation hierarchy and clarity on how the mitigation will be secured is needed.</p>	<p>More information has been included on mitigation for DMOs in Table 7.1, recognising specific locations are not known at this time.</p> <p>No reference is made to the mitigation and monitoring requirements for the YW transfer, relying on this being addressed in the YW SEA. More information could be provided on this to show these have been adequately considered.</p> <p>As discussed in item 1 the proposal to reinstate mothballed works (viewed by the EA as a new option) added to the revised plan has not been assessed under the SEA and mitigation will need to be assessed.</p>	<ul style="list-style-type: none"> • Avoid over-reliance on YW's assessment – mitigation and monitoring requirements for the Tees Transfer should be included in NWL's assessment, particularly focussing on any mitigation needed within NWL's operating area which may be difficult for YW to assess. • Assess mitigation needs for the new supply option as set out in item 1. • Ensure the incremental increases in use of the Tees abstractions (and possible support from Kielder) to support Teesside and then YW are assessed within the NWL appointed area (ensuring the needs of NWL forecast demands and increased abstraction is assessed independently from the YW needs). • Clarity on how the mitigation will be secured is also needed <p>We have updated our environmental reports to ensure that the mitigation and monitoring requirements for the Tees Transfer within our operating area are covered.</p> <p>We have updated Section 7 to include additional information on mitigation for the Yorkshire Water transfer and the Supplying Tees Industrial Water option.</p> <p>We have included further detail on the Yorkshire Water Tees Transfer outputs throughout the report and have considered those appropriate, primarily to the NWL area, taking the existing baseline into consideration. The incremental increases in use of the Tees abstractions (and possible support from Kielder) to support Teesside will be further assessed through gates 1 and 2 of the Kielder Strategic Resource Option (SRO) commencing in April 2025, an NWL WINEP investigation commencing in April 2025 and through further Drought Plan studies which we have agreed with the Environment Agency. We will coordinate all three aspects of work to ensure there is no duplication of effort.</p>

3. APPENDIX A – DEFRA REQUEST FOR FURTHER INFORMATION IN SUPPORT OF OUR STATEMENT OF RESPONSE



Department
for Environment
Food & Rural Affairs

T: 03459 335577
helpline@defra.gov.uk
www.gov.uk/defra

William Robinson
Northumbrian Water

Date: 6 February 2024

By email only: william.robinson@nwl.co.uk

Dear Will,

Draft WRMP: further information in support of your statement of response

Thank you for submitting the statement of response (SoR) to your consultation on the water resources management plan. We have been reviewing the revised draft plan, SoR and advice from the Environment Agency prior to submitting the documents to the Secretary of State for a decision on next steps. Before we can refer your plan to the Secretary of State for a decision, we would like you to provide some further information in support of your plan. The information requested is enclosed in Annex A.

The additional information should be sent to: water.resources@defra.gov.uk; water-company-plan@environment-agency.gov.uk; wrmp@ofwat.gsi.gov.uk

Any further information will form part of your SoR prepared under Regulation 4 of the Water Resources Management Plan Regulations 2007 and as such it should be published on the water company's website and a copy sent to those that made representations on the draft Plan. This is to enable stakeholders to understand, fully, the company's proposals and to ensure that all information informing the Secretary of State's decisions is in the public domain.

I would be grateful if you could let me have this further information as quickly as possible, but in any case no later than 8 weeks from receipt of this letter.

I am copying this letter to Richard Thompson and Stuart Sampson at the Environment Agency, Paul Hickey and Haydn Johnson at Ofwat/RAPID.

Yours sincerely

Martin Woolhead
Deputy Director – Water Services
T: 07881 676 158

E: Martin.Woolhead@defra.gov.uk

Annex A – further information required to support a decision on the Water Resources Management Plan

We advise that the company addresses these significant issues before publishing its final plan.

Issue 1: Sustainability changes

The response addresses most of the points raised, however, there is an outstanding issue regarding the sustainability of a licence variation due to expire in 2027. This licence would have a minor impact on deployable output in the Berwick & Fowberry resource zone. The company states that the Environment Agency have confirmed that the renewal is sustainable. This is not the case and further evidence is required before this can be concluded.

The company must update the plan to remove reference to Environment Agency confirmation to no risk of deterioration of supply and reduce the Fowberry source deployable output figure from 3.18MI/d to the reduced licence figure of 3.12 MI/d from 2027.

Issue 2: Environment Improvement Plan (EIP) Targets

Interim targets

The company has not included information in the plan to show whether it will or will not meet the EIP interim targets. This should be included within the final plan as instructed in the water resources planning guideline. The company should provide justification if it does not plan to meet these targets.

Baseline

The evidence presented in the plan does not adequately explain the baseline numbers from which the company have derived the assumed reductions. The company must ensure the final plan clearly articulates the baseline against which the EIP metrics are assessed to ensure progress against delivery of these targets can be monitored.

Non-household demand

The company states its intention to meet the targets to reduce non-household (NHH) demand by 9% reduction by 2037-38 excluding all growth (note this excludes significant growth associated with the high demand 'Net Zero Teesside' scheme). The target is not met if growth is included.

In its final plan, the company should clarify what certainty surrounds the forecast increase in potable water demand of 38 MI/d on Teesside. The company should also set out how the uncertainty is managed in the context of the NHH demand reduction strategy, and particularly meeting the target of 9% reduction by 2038. It should also provide sensitivity scenarios.

Distribution input

The company states that it meets the 20% reduction target of distribution input per capita by 2037/38, however its data indicates that overall interim and long-term targets are missed by a significant margin. If the business demand for the Teesside net zero hub is removed the target is achieved. A clear explanation and demonstration of how Northumbrian Water is meeting the government requirement is missing. This is needed to confirm whether the 20% target is met, and how it will be met. WRMP tables provide a figure for 2037-38, but not the 2019/20 baseline.

Northumbrian Water should provide a clear and evidenced explanation of how it will deliver the 20% government target and demonstrate using the data set out in the plan tables how this is expected to be achieved. Due to the impact Northumbrian Water have stated, this may include scenarios to demonstrate efficient approaches to reduce Business Demand with and without the Teesside net zero scheme impact, so we can understand the impact of this demand.

Issue 3: Set out screening criteria used in the options appraisal process and assess proposed changes to meet Teesside demand as a supply option

Northumbrian Water has provided a more robust explanation of the assessment criteria and methods to identify options chosen in their revised draft WRMP. The unconstrained list and reasons for rejection is now available in the data tables. However, the criteria used to screen from unconstrained to feasible are not set out and are not readily available for interested parties.

To meet non-potable demands in Teesside the plan proposes restoring a mothballed site and increasing abstraction licences. This is effectively a new supply option that has been introduced at the revised draft WRMP stage. Northumbrian Water has not demonstrated whether this is the most appropriate choice, and consequently alternate options may be better value, or whether there are inappropriate environmental impacts.

Northumbrian Water should set out the criteria used in its options screening process and update its options appraisal to include this new supply option. This will be useful to demonstrate the options chosen are best value and environmentally appropriate. If the evidence suggests an alternative plan the company will need to engage with regulators and Defra to set out how to update the plan.

Issue 4: Environmental assessment concerns (SEA/HRA)

The company's Habitats Regulations Assessment (HRA) does not consider potential impacts of a new proposed supply option because the company did not recognise the proposed works as an option. In its current form, there is a risk that the plan may not be compliant with the Habitats Regulations. Northumbrian Water must assure itself that the plan is compliant with the regulations; it should need to update the HRA to include this option in the assessment before the final plan is published.

The company was also asked to address several issues concerning their Strategic Environmental Assessment (SEA) report. The company has made several significant improvements to their SEA. However, some points remain which require attention, these relate to:

- reflecting proposed increases in annual/daily abstractions and changes to infrastructure required to meet increased demand at Teesside
- accountability for assessment of environmental impacts in its SoR response
- reliance on Yorkshire Water's SEA for assessment and mitigation/monitoring
- limited consideration of alternatives
- cumulative effects
- how the SEA has influenced the plan

The Environment Agency will provide the company with detailed feedback on the SEA in a technical appendix. Any significant issues that are raised must be addressed by the company before the final plan is published. Reports to be submitted to regulators and a review allowed before the final WRMP and SEA/HRA are allowed to be published.

Issue 5: Ensure New Appointments and Variations (NAVs) are represented clearly in the plan and the plan is aligned with NAV company plans WRMPs

New Appointments and Variations (NAVS) are required to produce a statutory WRMP. This means that when ensuring alignment with regional and neighbouring water company plans incumbents should ensure alignment with the NAV plans. The company should:

- describe each transfer to a NAV in its plan and set out the contractual volumes in the planning tables,
- ensure properties and populations served by NAVS are not included within the forecasts in the company plan going forward. This is to prevent double counting of demand components and also overstating supply. The company should work with the NAV companies to ensure alignment of assumptions e.g. number of sites, population, property and contractual volumes.

We do not expect incumbents to forecast beyond the appointed sites set out in the NAV WRMPs i.e. new sites will be awarded but the incumbent will not know when and to which NAV. The company should use the WRMP cycle to update the figures and adjust forecasts accordingly.

4. APPENDIX B – ENVIRONMENT AGENCY STATEMENT OF RESPONSE REVIEW ANNEX

Northumbrian Water: Statement of Response Review Annex

This table sets out:

- material issues raised to Defra for completeness - where further detail is available which will support the company in addressing those items this is provided
- issues which we do not consider material to the plan, however we believe that addressing them will improve the company's plan

Area of issue	Issue	Why this would be useful to address and who raised this issue.	Recommended changes to the plan
<p>The items that are material to your plan and were raised by Defra must be addressed. The letter from Defra outlines these items. The content below adds additional information to aid understanding of the issue raised.</p>			
<p>Issue 1: Sustainability changes</p>	<p>There is an outstanding issue regarding sustainability of a licence variation due to expire in 2027. The revised WRMP still states that the Environment Agency has confirmed that none of the time limited licences are considered to pose a risk of deterioration and will be renewed with the existing variations remaining in place (page 52).</p>	<p>This issue was raised by the Environment Agency and should be addressed as the current assumption in the plan is incorrect and this affects the supply demand balance.</p>	<p>For Fowberry the company should:</p> <ul style="list-style-type: none"> • provide the EA with clarification of work undertaken and evidence that the higher licence figure of 3.64 MI/d is sustainable in the long-term

	<p>This is not the case for Fowberry as the evidence necessary to allow this conclusion is outstanding. The deployable output assumed for Fowberry remains too high based on presumption of renewal (data tables).</p>		<p>If the EA does not confirm that it has reviewed the evidence and that the higher licence rate is sustainable then prior to publication the company are expected to:</p> <ul style="list-style-type: none"> • update the plan to remove reference to EA confirmation that the Fowberry licence is not a risk to deterioration • reduce the source deployable output figure from 3.18MI/d to the unvaried licence figure of 3.12 MI/d
<p>Issue 2 – Environmental Improvement Plan targets</p>	<p>Baseline The evidence presented in the plan does not adequately explain the baseline numbers from which the company have derived the assumed reductions. For example, for distribution input the plan states that the 20% reduction by 2037/38 target is met (excluding growth) but the baseline used is not clear so we have been unable to verify this. The company must ensure the final plan clearly articulates the baseline and therefore the</p>	<p>These issues were raised by the Environment Agency and Ofwat.</p> <p>Clarification will ensure that the ambitions regarding targets are clear and that the company is demonstrating the efficient level of business demand reduction it can achieve.</p>	<p>The company should:</p> <ul style="list-style-type: none"> • ensure the final plan clearly states the baseline used when referring to the reductions achieved for the EIP metrics • include a table in the plan to show whether you will or will not meet the EIP interim targets - where targets will not be met

	<p>targets for the EIP metrics to ensure progress against delivery of these targets can be monitored.</p> <p>Interim targets Interim targets are not always stated or met – these should be added to the plan with reasoning given where they are not met. Clearly identifying the base year, year a target relates to and the associated values, will allow the company to simply demonstrate the progress against such targets.</p> <p>Non-household demand It should be noted that the EIP target applies to potable water only.</p> <p>The company is not currently forecasting to meet non-household reduction targets due to forecast growth.</p> <p>The company states it meets the NHH target when excluding growth. It is not appropriate to exclude growth from this target – rather it should be clear that the target is not met, why it is not met, and what measures the company will take to minimise the degree by which it is not met.</p>		<p>provide clear explanation and justification</p> <ul style="list-style-type: none"> clarify what certainty surrounds the forecast increase in potable water demand of 38 MI/d on Teesside and provide sensitivity scenarios set out how uncertainty is managed in the context of the NHH demand reduction strategy, and particularly meeting the target of 9% reduction by 2038. provide a clear and evidenced explanation of how it will contribute towards delivery of the government target of a DI/population reduction of 20% - explain how the components in the demand reduction plan (leakage PCC etc) contribute to this target, and provide justification why the 20% reduction isn't met
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	<p>Uncertainty surrounding the forecast 38 MI/d increase in potable water demands by Teesside businesses, and how this would be managed in the context of the NHH demand reduction strategy, is not clear.</p> <p>Distribution input Interim and long-term targets are missed unless the business demand for the Teesside net zero hub is removed. As above, exclusion of growth is not appropriate.</p> <p>It is difficult to reconcile the information in the plan with the data. The SoR states that the 20% reduction by 2037/38 target is met (excluding growth) in the revised plan. However, Ofwat identified that the data indicates a 3.8% and 18.6% reduction in DI/population by 2029/30 and 2037/38 respectively.</p> <p>A clear explanation and demonstration of how Northumbrian Water is meeting the government requirement is missing. This is needed to confirm whether and how the 20% target is met.</p>		<ul style="list-style-type: none"> • set out how the DI/population reduction figure quoted in the plan is derived using the information from the data tables
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	<p>It is not clear how the component measures (leakage, PCC etc) contribute towards the 20% target or whether the company explored higher ambitions in other measures with the aim of allowing a greater contribution towards the DI/population target. We would expect explanation to evidence level of ambition, why it is not best value to go further and how NHH potable growth impacts what is possible for DI/population overall. We would also expect greater recognition of how existing ambitions (e.g. reduced PCC and leakage) in themselves contribute towards the 20% target.</p>		
<p>Issue 3 Screening criteria and supply options</p>	<p>Supply Options To meet non-potable demands in Teesside, the plan proposes restoring a mothballed site and increasing abstraction licences. This is effectively a new supply option that has been introduced at the revised draft WRMP stage. Northumbrian Water has not demonstrated whether this is the most appropriate choice, and consequently whether alternate options may be better value, or whether there are inappropriate environmental impacts. The process by which the options are selected should be set out. Where alternative</p>	<p>This is an issue highlighted by the Environment Agency upon receipt of the rdWRMP.</p> <p>This information is necessary to demonstrate the options appraisal process followed is transparent and chosen options are best value and environmentally appropriate.</p>	<p>Northumbrian Water should:</p> <ul style="list-style-type: none"> • update its plan to include the outlined supply options - if the evidence suggests an alternative plan the company will need to engage with regulators and Defra to set out how to update the plan • provide more detail on the works required to restore the mothballed site, the associated

	<p>options were not considered this should also be explained.</p> <p>There is lack of detail regarding the proposed infrastructure changes and how the site will be used operationally (alongside other sources) to supply the new demand. As a result, there is lack of clarity regarding the implications for environmental impact and regulatory requirements. You should provide regulators with more detail on the proposed licence changes and operational use as soon as possible. For example, the EA would like to better understand:</p> <ul style="list-style-type: none"> • the intended operation and interactions between the Tees sources • potable/non-potable systems and how these will be used to supply Teesside <p>This would need to cover the changes required for NWL operations to support the Teesside growth and the incremental growth that a transfer to YWS would bring.</p> <p>In discussion with the company regarding WINEP investigations, it has been</p>		<p>licence changes (including historical context of licence use), and how the system will be used to supply growth in demand for NWL and subsequently YWS transfer - if this cannot be provided in the plan for security reasons the company should provide regulators with an appendix</p> <ul style="list-style-type: none"> • confirm whether tankering is used as a non-drought measure. Include this in the plan as a supply option including the details of the circumstances under which tankering is used and why selected compared to other options • set out the criteria of the options screening process to progress from unconstrained to feasible in the final plan in order to confirm to customers and stakeholders that the
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	<p>described that tankering from Kielder WRZ to Berwick and Fowberry WRZ could be used as an option. This is in the event that the new borehole installed to meet WINEP requirements might not yield sufficient WAFU benefits. We have noted that the plan does not appear to refer to tankering. If potentially relying on tankering, the plan should make clear that this is something customer supplies could be dependent upon. Tankering could also be considered as an option and this has not been assessed by the company. We would expect options to be compared to ensure the best value plan is presented.</p> <p>We would expect the company to demonstrate the circumstances under which tankering might be required and also whether alternative options exist. The assessment should be used to demonstrate if tankering is the most appropriate option, explain whether the tankering would be, intra-zonal or inter-zonal transfer and presented against the context of alternative options.</p> <p>Options screening criteria The unconstrained list and reasons for rejection is now available in Table 4 of the</p>		<p>appropriate options have been selected</p>
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	<p>data tables. However, the criteria used to screen from unconstrained to feasible are not set out in the plan or SoR and therefore are not readily accessible for interested parties. The SoR response provided has not stated the criteria for selecting feasible options. It states that section 8.2 of the dWRMP has been updated to provide additional detail: however, this relates to the selection of the best value plan and does not adequately describe the screening criteria.</p>		
<p>Issue 4 - Environmental assessment concerns - Strategic Environmental Assessment (SEA) (Habitats Regulations Assessments (HRA))</p>	<p>The company has made a number of improvements to their SEA. However, some issues were not adequately addressed or there are other concerns.</p> <p>Key issues:</p> <ul style="list-style-type: none"> The SEA has not been updated to reflect proposed increases in annual/daily abstractions and changes to infrastructure required to meet increased demand at Teesside. This proposal amounts to a new supply option and inclusion in the SEA is required to ensure the impact is understood. 	<p>In its current form, there is a risk that the plan may not be compliant with the Habitats Regulations.</p> <p>Addressing the issues listed would reduce the risk that significant effects have been missed within the company's SEA assessment. Issues were initially raised by Natural England and the Environment Agency.</p>	<p>Northumbrian Water should:</p> <ul style="list-style-type: none"> assure itself that the plan is compliant with the regulations; it should update the SEA/HRA to include the new supply option (works associated with reinstating mothballed site) and increased use of existing abstractions in the assessment before the final plan is published set out whether any revisions to SEA/HRA affect the preferred

	<ul style="list-style-type: none"> Continued heavy reliance on Yorkshire Water's (YW) SEA/HRA for a future Tees-York transfer. <p>Key concerns with the reliance on YW assessments are:</p> <ul style="list-style-type: none"> The company has not adequately clarified the accountability for assessment of environmental impacts in its SoR response. We are concerned that the impacts increased use of the Kielder system could have on some designated sites may not have been assessed by YW and that YW would struggle to do this effectively without understanding of the Kielder Operating Agreement (KOA) and operational experience of the system. In particular it is not clear whether YW have assessed, or will be able to assess, effects within NWL's system – principally impacts on Cow Green reservoir which is designated under Appleby Fells SSSI/Moor House Upper Teesdale SAC/North Pennine Moors SPA. Releases from Cow Green 		<p>plan, demonstrating how the SEA has informed the plan as appropriate</p> <ul style="list-style-type: none"> confirm whether impacts on designated sites at Cow Green have been adequately assessed, who made the assessment (NWL or YW), and if not already undertaken add this to assessments - ensuring this reflects the incremental demands placed on the Tees sources address issues that are raised in the technical appendix or by Natural England before the final plan is published <p>The company should also:</p> <ul style="list-style-type: none"> ensure the WRMP assessments integrate into work relating to the extended use of Kielder work
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	<p>are tied to releases from Kielder under the Tees and Cleveland Water Act. Increased Tees abstraction will require more Cow Green utilisation, initially which may impact on the designated sites. More support may subsequently be required from Kielder.</p> <ul style="list-style-type: none"> Reliance on YW's assessment means increased use for NWL's own needs has not been adequately covered in NWL's environmental assessments. The Tees-York Transfer is just one of three developing demands on Kielder. We do not consider it appropriate to rely on YW's assessment for increased use that serves NWL. The company has confirmed in the SoR that it has agreed with the Environment Agency to undertake a wider assessment to confirm how increasing use will impact river flows on both the North Tyne and River Tees and how actual flows could deviate from target flows, linking this assessment with a similar assessment for the Drought Plan and if possible, with a new AMP8 WINEP investigation. How this work will progress, what it will entail, timescales, and how it interacts with the plan/its environmental 		<p>programme. This should account for:</p> <ul style="list-style-type: none"> - impacts associated with extended use in drought - impacts associated with the proposed Yorkshire Water transfer - impacts associated with increases to NWL demand (growth on Teesside) - outcomes from EA review of the supported flows in the Kielder supply zone - the aggregated and incremental in combination impacts of these elements over time (based on the known delivery dates for schemes) <ul style="list-style-type: none"> explain any uncertainty the Kielder work programme introduces to the plan or its environmental assessments clarify the responsibility and the mechanism for the assessment of in-combination effects of
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	<p>assessments is not clear. NWL need to reflect this work and uncertainty in its assessments/clarify how this work interacts with the SEA/HRA & how it will update its environmental assessments to incorporate findings.</p> <p>The EA are carrying out a review of the flow requirements in the Kielder supply zone (on the Rivers Tyne, Wear and Tees). NWL will need to continue to work with the EA to ensure that the outcomes will be incorporated into NWL's future plans.</p> <p>NWL are now proposing a potential new joint SRO with Yorkshire Water and United Utilities. This is expected to consider more than just the transfer from Tees-York in the WRMP. The SEA and plan should refer to this and note that it will be incorporated into WRMP29.</p> <p>Overall, the responsibility and the mechanism for the assessment of in-combination effects of the new demands on Kielder and associated changes to operation is unclear. As the operation of the system, proposed option and works redevelopment are the responsibility of</p>		<p>the new demands on Kielder and associated changes to operation</p>
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	<p>NWL, as is supplying the potential Teesside growth, we would expect the company to have completed suitable environmental assessments relating to its own needs as well as in-combination assessment with the needs identified as being required for the YW transfer.</p> <p>Other issues: For other issues we provide a technical appendix 'NWL SoR SEA technical appendix' outlining our review of the revised SEA. You should note that the technical appendix does not include comment from Natural England, you should discuss the SEA with NE directly and address any concerns raised.</p>		
<p>Issue 5 – NAVS</p>	<p>It remains difficult to reconcile NAV transfers in the plan with information provided in NAV companies' WRMPs.</p> <p>NAVs are reporting the following transfers with NWL which are absent from NWL's tables 1f/1g:</p> <ul style="list-style-type: none"> - ESP export (2 sites totalling 0.67MI/d) - IWNL export (24 sites totalling 3.43MI/d) - Leep export (1 site 0.05MI/d) 	<p>The Environment Agency raised this issue.</p> <p>It is important that the approach for engaging with NAVS and demand management activities are appropriately aligned to ensure consistency between statutory plans.</p>	<p>The company should:</p> <ul style="list-style-type: none"> • review the NAV company WRMP24 planning tables to align with their planning tables • represent NAV exports in table 1g as one NAV company per water resource zone to ensure the volumes are aligned

	<p>NAV sites are treated as potable water exports and therefore should be included as such in table 3a.</p> <p>To help cross compare NAV and Northumbrian's tables we request the NAVs are included in table 1g. Each NAV company should be listed separately and split into WRZs, i.e. if IWNL's sites are split over Northumbrian's WRZs, it should feature for each of Northumbrian's WRZs.</p> <p>Some companies have included NAVs in their demand forecast but this is incorrect as it leads to the water and demand being double counted by the incumbent and the NAV company. It appears that NWL have done this correctly but as NAVs are not listed in planning table 1g you should ensure properties and populations served by NAVS are not included within the forecasts in the company plan. You should work with the NAV companies to ensure alignment of assumptions e.g. number of sites, population, property and contractual volumes.</p> <p>We do not expect incumbents to forecast beyond the appointed sites set out in the NAV WRMPs. The company should use</p>		<ul style="list-style-type: none"> ensure NAV company exports (contractual volumes) are represented as potable water exports in table 3a for each water resource zone, ensuring tables 1g and 3a volumes align
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	the WRMP cycle to update the figures and adjust forecasts accordingly		
<p>The following items were not raised to Defra but may improve the plan. The company is not obliged to address these issues but we would recommend that as many as possible are considered.</p>			
<p>Issue 6: Non-potable deficit in final plan</p>	<p>Northumbrian Water should resolve the supply demand deficit in the Kielder non potable system in 2027-28 or set out how the risk will be mitigated, and growth will be supported. The company should include in their plan an explanation of the likelihood of a deficit in a normal year to provide context to the risk associated with the deficit.</p> <p>The revised plan contains a 0.79MI/d deficit in 2027/28 in the Kielder non-potable system (data tables line 49.1FP). The reason for this is not explained in the plan.</p> <p>There is a significant (43.33MI/d) potable surplus by 2027/28 so there may be no real risk to supplies but the company must be clear on whether the potable surplus can be used to offset the apparent non-potable deficit.</p> <p>We recommend this is considered alongside issues 3 and 7.</p>	<p>This was not raised as a representation as a deficit was not present in the draft WRMP.</p> <p>The company should not plan to have a deficit. The issue affects non-household supplies only which the company is not legally obliged to supply, but a deficit suggests potential risk to business growth/timings of growth which has not been explained and undermines confidence in the plan.</p>	<p>We suggest that the company:</p> <ul style="list-style-type: none"> • acknowledge the deficit and explain the reason for it • set out the likelihood of a deficit in a normal year (as opposed to dry year annual average) • set out how it will mitigate the risk and support growth - confirm whether & how the potable surplus may be used to address the deficit

<p>Issue 7: Integration of the non-potable system into the Kielder water resource zone</p>	<p>The company was asked to provide a thorough narrative which explains how the non-potable system is represented in the planning tables and how the company will account for it when reporting to regulators given that it is not reflected in the supply demand balance (SDB).</p> <p>You were also asked to ensure that any references to SDB throughout the plan are as to whether (or not) the non-potable system is being included.</p> <p>Some clarification has been provided on the nature of the non-potable system which is welcome, but there is no explanation in S2.1.2 of the plan or 2.4 of the technical report regarding representation in planning tables or reporting as suggested in the SoR response.</p> <p>SDB specific sections of the plan have been updated to distinguish between potable and non-potable as requested, however some references to SDB remain in other parts of the plan where this distinction is not made e.g.S6.5 WRMP24 baseline SDB starting position compared</p>	<p>Addressing the issues listed would ensure that it is clear how non-potable supplies and demands can be understood from the planning tables, how they will be reported to regulators, and ensure that no part of the plan read in isolation might inadvertently suggest that reference to SDB includes water in the non-potable system.</p> <p>Clear understanding of whether the non-potable system is included in data is vital for reporting purposes and will be required to demonstrate that EIP targets are being met (for example distribution input baseline year of 2019/20 may not include the non-potable supplies as this was not reported as SDB in WRMP19).</p>	<p>We recommend that the company add detail to the plan to explain the following:</p> <ul style="list-style-type: none"> that the non-potable system is not represented in the SDB line (50FP) of the planning tables and therefore would not be reported in standard distribution input data set out that it is dealt with via lines 1.1FP Non-potable water supplies, 12.1FP Non-potable water consumption and 49.1FP Available non-potable balance, with available non-potable balance being the non-potable equivalent of SDB line 50FP record in the appendix that the Tees transfer to Yorkshire Water does not appear as an export in line 4FP (raw water exported) because this would cause it to impact on the potable system SDB
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	<p>to WRMP19. Where the reader is familiar with the two systems context may be used to infer whether the reference is to potable or non-potable supplies, but where the reader is not familiar, or when comparing to earlier plans, the risk remains that SDB will be assumed to cover all supply and demand (including non-potable).</p> <p>Treating the two systems as an integrated zone is likely to remain an area needing careful communication. In particular the distinction between potable and non-potable distribution input and how that is now represented.</p> <p>This should align with issues 2, 3 and 6.</p>		<ul style="list-style-type: none"> record that -the Tees transfer to Yorkshire Water does not appear in line 12.1FP (non-potable consumption) because the demand is not local to the Kielder resource zone (the demand originates in Yorkshire Water's resource zones) - confirm that this is intentional because the consumption line is intended to reflect demand arising within the Kielder zone explain that an adjustment has been made to the baseline non-potable supply line (1.1BL) from 2040/41 in order to ensure the correct available non-potable balance in line 49.1FP and that this is noted in a comment in the relevant table cell reference the appendix in S2.1.2 of the plan and the relevant technical reports
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			<p>The company should also:</p> <ul style="list-style-type: none"> • be mindful of the need to cover both the potable and non-potable supply demand balances when reporting, and to be clear which system is being referred to in all communications – continue to work with regulators to ensure reporting mechanisms account for both systems (for example, annual review tables) • note that some of this content may be very specific to regulatory evaluation of the plan and how EIP targets are evaluated, it may be appropriate to submit some of this detail as an appendix to the plan
Issue 8 - Water transfers	This issue links to issue 5 regarding NAV transfers. The SoR states that transfers / bulk supplies have been reviewed and are clearly represented in the planning tables.	<p>This issue was raised by the EA under improvement 10.</p> <p>Tables not completed mean it is not possible to reconcile between companies</p>	<p>The company should:</p> <ul style="list-style-type: none"> • ensure all external and internal transfers are included in planning tables 1f and 1g

	<p>This issue has not been addressed adequately.</p> <p>Tables 1f and 1g (transfers) remain incomplete indicating there are no transfers which is incorrect – a 4.63MI/d potable export value for Kielder WRZ is included in Table 3c (row 5FP).</p> <p>United Utilities are reporting the following transfers with NWL which are absent from NWL’s tables 1f/1g:</p> <ul style="list-style-type: none"> - A 1.3 MI/d export called ‘Killope Cross’. - A 0 MI/d DYAA volume (0.3 MI/d annual licence limit) import called ‘Reaygarth (Brampton)’ <p>We have been unable to reconcile the potable export value in Kielder WRZ (4.63MI/d) with figures provided by United Utilities and NAVS which total 5.45MI/d.</p>	<p>and thereby assess coherence and aligned planning.</p>	<p>(including NAV transfers as referenced in Issue 5)</p> <ul style="list-style-type: none"> • review United Utilities revised draft planning tables and ensure that all transfers and their volumes are aligned between each company’s table 1g, in particular the ‘Killope Cross’ and ‘Reaygarth (Brampton)’ transfers • provide a breakdown for the potable export total for Kielder WRZ (to enable the volume presented to be understood) • after undertaking the points above ensure tables 1f, 1g and tables 3a for each water resource zone are aligned
<p>Issue 9 - Government expectations - Leakage</p>	<p>Northumbrian Water does not forecast to meet the interim leakage reduction targets for 2031-32 and 2037-38.</p> <p>There are concerns about leakage proposals in the short to medium term. In</p>	<p>This issue was raised by Ofwat and CCW.</p> <p>Additional information will indicate whether interim targets are met and may improve confidence that the final plan represents an optimised plan for leakage reduction.</p>	<p>In the final plan the company should:</p> <ul style="list-style-type: none"> • include information on whether interim targets are met

	<p>the short to medium term the company proposes only a 7.0% (2019-20 baseline) reduction in leakage 2025-30 compared to a forecast 14.2% (2019-20 baseline) reduction in 2020-25. The company does not provide sufficient and convincing evidence that its proposals for leakage reduction are suitably optimised.</p> <p>The SoR has not adequately addressed a representation noting that the plan does not discuss the company's customer supply pipe leakage policy and that Ofwat expect companies to provide a view on the benefits of a common industry approach in their statements of response and final WRMP.</p>		<ul style="list-style-type: none"> • review and test a scenario to deliver 2037-38 interim reduction target and evaluate with clear evidence a more stretching ambition for leakage reduction in the 2025-30 period which should be included in its final WRMP (fWRMP) • clearly state what the policy is for customer supply pipe leakage and provide a view on the benefits of a common industry approach
<p>Issue 10 - Government expectations – PCC</p>	<p>The revised plan indicates that the 110l/h/d by 2050 is met but the company inconsistently presents its forecast 2024-25 position in its statement of response and data tables.</p> <p>The revised draft WRMP data tables use a 2024-25 level that is higher than that quoted in the SoR and the level discussed with Ofwat as part of performance reporting.</p>	<p>These issues were raised by Ofwat.</p> <p>Additional information will clarify starting position and demonstrate that the PCC ambitions in the final plan are fully justified.</p>	<p>The company should:</p> <ul style="list-style-type: none"> • clarify its 2024-25 PCC position in its final WRMP to ensure it is consistent with the narrative. • consider an increase to its expected benefits from its selective metering programme in its final WRMP or provide compelling evidence why it

	<p>The company uses a significantly lower estimate of the benefits of its selective metering programme than other companies, 7.1% vs 17-18%.</p> <p>The company were asked to justify chosen ambition of PCC reduction for 2025-30 in comparison to 2020-25 but this point remains unaddressed. This is also within the context of NWL stating that it will miss its 2024-25 PCC target by 15.3 l/h/d.</p>		<p>expects to deliver lower levels of benefits than other companies</p> <ul style="list-style-type: none"> • demonstrate that it is taking sufficient mitigating actions for each year of the 2020-25 price control to reduce the impacts of Covid-19 and account for this in its future forecasts in its final WRMP - especially in the context of Ofwat work to assess the impact of Covid-19 on outturn 2020-25 and forecast 2025-30 PCC levels • provide historical PCC figures (2017 onwards as appropriate) in its final WRMP relating to the northern region aligned with its water balance reporting and business plan submission • justify the PCC ambition over AMP8 in the context of its re-forecasted end position for AMP7 in its final plan and business plan
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<p>Issue 11 - Government expectations – Metering</p>	<p>The company was asked to provide sufficient evidence that its preferred meter technology and rate of metering is optimal over the long term. This point was considered partially addressed by the SoR.</p> <p>Preferred metering technology and benefits are described. Reference is made to a shortage of chips in AMP7 affecting choice of preferred smart meter technology. However, there remains lack of clarity regarding whether the balance of technologies and rate of metering are optimal, and whether the anticipated failure to meet WRMP19 targets may change the new plan baseline.</p> <p>The response also does not address a point raised regarding how the programme will be monitored and any mitigation the company will put in place if the measures are not being delivered as expected. There remains limited detail on this point.</p>	<p>This issue was raised by the Environment Agency and Ofwat.</p> <p>Information regarding monitoring and mitigation will reassure regulators that the company can deliver its metering programme and could inform adaptive plan decisions for WRMP29.</p> <p>Additional detail will allow Ofwat to consider the evidence and data presented in final WRMP and business plans on best value metering strategies as part of its cost allowance assessment and determination of PCLs/PCDs.</p>	<p>The company should:</p> <ul style="list-style-type: none"> include a monitoring plan for its demand management strategy, to review and respond to success of its activity programme provide additional detail in the final WRMP and business plans in regard to whether or not the selection of technology, and rate of metering, remain optimal
<p>Issue 12 - Risk of demand measures</p>	<p>The company has confirmed that they have followed adaptive planning principles and concluded that no adaptive pathways</p>	<p>This issue was raised by the Environment Agency and Ofwat.</p>	<p>The company should:</p>

<p>delivery and monitoring and reporting of the plan</p>	<p>are required, additional explanation has been provided to make that distinction. The company was asked to explain risk to supply or level of service if demand measures in the early years do not achieve the savings required to offset the baseline deficit.</p> <p>The statement of response and revised plan do not address this point sufficiently and the implications of failure to deliver the demand management programme are not fully clear.</p> <p>The company's demand strategy has no detailed monitoring plan outlined to review the success of its demand and leakage reduction activities. The company should include a monitoring plan for its demand management strategy, to review success of its activity programme and constituent components. Outcomes from monitoring will keep the company on track and could inform adaptive plan decisions for WRMP29.</p> <p>Outside of the plan the company should work with regulators to ensure a regular programme of monitoring and reporting is set up to deliver via liaison meetings and</p>	<p>This information would be useful as it will clarify what is at risk, and to what degree, should the company fail to deliver the demand management programme.</p> <p>To ensure companies are on track in meeting demand management activities and assessing whether adaptive plan triggers are met (for new demand or supply options) it is important that companies track performance through the year.</p>	<ul style="list-style-type: none"> • ensure the plan explicitly covers risk of non-delivery of the forecast demand savings – it should indicate to what extent the demand measures could fall behind forecast while still allowing NWL to: <ul style="list-style-type: none"> - maintain a supply surplus - maintain planned levels of service - meet EIP targets • set out any actions and triggers that would be taken in the event of demand side options failing to deliver the savings planned • set out its approach to recording, monitoring and reporting data to ensure that monitoring leads to informed interventions • set out how it will assess the success of the demand management activities – this
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	<p>annual review. This should include monitoring of metrics, projects and timescales. NWL should pay particular attention to reporting for the non-potable system within the Kielder zone, and whether growth in the area appears to be in line with forecasts. Where performance or delivery is behind the company's forecasts reporting should also provide reasons, lessons identified, and a plan of action to address the issues.</p>		<p>should include total contribution to demand savings, a breakdown of the specifics savings for each measure, -and how observed savings compare to assumed benefits</p> <ul style="list-style-type: none"> • include reporting of non-potable demands to ensure growth is not constrained and actions to mitigate potential shortfalls are implemented in timely fashion • include reporting of progress on schemes such as WINEP delivery which may impact on deployable output
<p>Issue 13 - Population forecast</p>	<p>The company was asked to provide evidence in final WRMP that the revised population forecast for WRMP24 is reliable and why it is different to WRMP19. The SoR does not appear to address this point.</p> <p>Population forecasts for the rdWRMP are provided in the WRMP tables, but there is no commentary provided in the company</p>	<p>This issue was raised by Ofwat</p> <p>Lack of clarity regarding population forecasting may affect decisions on funding allowances for PR24.</p>	<p>The company should:</p> <ul style="list-style-type: none"> • update the WRMP to address this point • provide a clear comparison of the WRMP24 and WRMP19 forecasts and the reasons behind any differences

	<p>tracker. NWL has not provided any information or evidence that addresses this point.</p>		
<p>Issue 14 – Directions</p>	<p>The company is considered to have done enough to pass the Directions; however, some aspects of the responses are unclear and could be improved.</p> <p>3(c) Text added to section 2.4 outlines the 'trigger levels' well for Berwick & Fowberry but, apart from the reference to reservoir groups, the same information associated with Levels 1, 2 and 3 is not set out for Kielder Resource Zone.</p> <p>3(f) Information is provided on proportion of new smart meter installations but there is no indication of the proportion of smart meters to other meters for the whole metering stock (inclusive of existing meters).</p> <p>3(h) Information has been improved but indicates only installations in AMP8. To confirm the total number of properties not charged by reference to volume NWL should state that there are not any properties currently metered but not billed and provide AMP9 figures.</p>	<p>These issues were raised by the Environment Agency as part of recommendation 5.</p> <p>It is useful to address this point to ensure no risk of challenge regarding compliance with the Directions.</p>	<p>The company should:</p> <ul style="list-style-type: none"> • 3(c) – clarify the link between reservoirs and triggers for drought actions in the Kielder zone, add a description of how the reservoir groups described have control curves that enable triggers for action to be derived • 3(f) set out the proportion of smart versus not smart meters over time (not what proportion of new installations will be smart but what proportion of all metered properties will have a smart meter (this should be aligned to data in table 2c etc) • 3(h) confirm the total number of properties not billed by reference to volume, not just new installations

	<p>3(m) remains unclear. The 3-year average value (135.8MI/d) is used as the baseline but the text in 7.2.1 states that NWL have used 17/18 as baseline 'rather than 3-year average'.</p>		<ul style="list-style-type: none"> 3(m) - review the definition of baseline and confirm the figure used is the 3-year rolling average (Ofwat) figure, revise the narrative to accurately describe the origin of both the baseline leakage figure and how the 50% will be assessed
<p>Issue 15: Dry year critical period</p>	<p>The company was asked to address lack of critical period data and clarify their normalisation methodology.</p> <p>Though improved, the explanation of the removal of summer months in normalisation and the process for doing this is not explained in a way that a customer would easily understand. Whilst not material to the plan, the methods and assumptions informing the plan should be clear enough for the reader to understand.</p>	<p>These issues were raised by the Environment Agency as recommendation 1.</p> <p>Addressing the issues listed would ensure that the critical period assessment and final supply demand balance is clear to readers.</p>	<p>We suggest that the company:</p> <ul style="list-style-type: none"> set out the normalisation methodology in simple language, with the method, assumptions and values set out to enable a customer to understand the derivation of the critical period and what normalisation achieves review Figure 28 and Table 46 (B&F FP DYCP) as the supply demand balance plotted appears to be greater than values provided in table 46, and the values given in Table 46 do not match those provided in the planning data table (table 3f)

<p>Issue 16 - Pollution and sewage discharge events</p>	<p>Comments were raised regarding an expectation of seeing pollution and sewage discharge events addressed in final WRMPs. The SoR does not address this issue.</p> <p>While sewerage activities do not fall under the WRMP remit there can be pollution activity at water treatment works and pollution events can affect the availability of water so we would expect NWL to respond to this point.</p> <p>From the context in the representation it is probable that the type of events the respondent has in mind will fall under drainage and wastewater management plans. It may be appropriate to clarify the scope of WRMP and signpost to other planning processes to ensure those reading the plan are aware of what is in scope.</p>	<p>This issue was raised by Waterscan.</p> <p>Addressing this point could be helpful for stakeholders and customers in understanding concerns regarding impact of pollution events and the scope of WRMP. Signposting to the wastewater and sewage plans could ensure the planning process is better understood.</p>	<p>The company should</p> <ul style="list-style-type: none"> • update the WRMP to respond to the point raised in the representation • consider whether signposting to drainage and wastewater management plans in the WRMP would be useful for stakeholders and customers • set out how the company deals with pollution incidents attributable to water resources assets
<p>Issue 17 - Issues raised by Waterscan were not addressed in the SoR</p>	<p>Waterscan made several points in their representation which were not addressed by the SoR.</p> <p>The SoR appears to have focussed on a single point. This point was highlighted in</p>	<p>Issues were raised by Waterscan.</p> <p>None of the issues are likely to result in a material change to the plan, however acknowledging them in the SoR would</p>	<p>The company should review the points made and consider whether any amendments to the WRMP are required.</p>

	the representation as specific to NWL, whereas other points typically appeared to be directed at the industry, but it is not clear from the SoR if this is the reason that other points were omitted.	ensure that the process followed is transparent.	
Issue 18 - Customer education	<p>The company was asked to improve the plan with respect to customer education, highlighting customer research that revealed that “a focus on education was something that was felt to be potentially missing”.</p> <p>This was addressed by updating the customer summary with a greater focus on education which, while useful, is thought to be a misinterpretation of the point raised and not wholly adequate. Our interpretation was that greater focus on education is required by the company on a day-to-day basis rather than a need to highlight the proposed education programme more clearly in the non-technical summary.</p>	<p>This issue was raised by CCW.</p> <p>Improving the plan will benefit the company and consumers by providing material and tools to better engage on water resource issues in the future.</p>	<p>We recommend that the company:</p> <ul style="list-style-type: none"> • update the plan to show educational materials available – signposting and linking to materials held elsewhere is acceptable • consider additional ways to extend education to customers and research with customers into what educational information is required
Issue 19 - Data Tables	Throughout this WRMP cycle there has been concern about the level of detail and accuracy applied to the WRMP data tables, which has included missing, incomplete and resubmitted data. This	<p>This point was raised by the EA and Ofwat.</p> <p>Accurate data tables underpin clear understanding of the plan.</p>	The company should ensure that final plan data tables are accurate prior to submission.

	must be resolved for the final WRMP without reliance on resubmission of tables.		

5. APPENDIX C – ENVIRONMENT AGENCY STATEMENT OF RESPONSE SEA TECHNICAL APPENDIX

Northumbrian Water: Statement of Response SEA Technical Appendix

This table is the technical appendix referred to in our advice to Defra. It sets out issues identified by our review of the revised SEA where we believe that further technical detail will support the company in making the recommended changes.

Has the SoR dealt with the original recommendation effectively?	Significance	Issue	Recommended changes to the SEA
Item 1: Include new supply option in the environmental assessments.			
Not in original recommendation – new item	Key point - of particular concern from a compliance perspective	<p>Proposed works to reinstate a mothballed water treatment plant (requiring abstraction licence changes and installation of eel screens) have not been assessed under the SEA or included in the assessment of the preferred plan.</p> <p>This was not identified in our original assessment of the SEA as the proposed works were introduced at the revised WRMP stage.</p>	<p>Include the proposed works as a new supply option in the environmental assessments.</p>

**Item 2:
Clarify the cumulative and in-combination effects assessment of the draft WRMP – extend the scope of the Policies, Plans and Programmes review to consider all relevant plans, projects, and permissions.**

<p>Partially</p>	<p>Key point - of particular concern from a compliance perspective</p>	<p>The cumulative and in-combination impacts assessment remains unclear, and the scope of the PPP review does not appear to include all relevant options and plans.</p> <p>Reference to recent updates to the NPPF has been added to the PPP review. Cumulative effects assessment is included in the revised SEA ER but this focusses on demand management options, is high level and limited in its effectiveness due to no confirmed locations for demand management options and does not cover neighbouring WRMP's or regional plans. Although the transfer to YW is included (though see Item 3 below).</p> <p>It is not clear if the scope of the PPP review includes DWMPs or SRO's.</p>	<p>The scope of the PPP review should be extended to consider the issues arising in other neighbouring water company WRMPs and other water related plans in greater detail to identify cumulative effects of other company and regional plans more clearly.</p>
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**Item 3:
Justify the selection of the preferred plan and demonstrate clearly how the SEA has influenced development of the plan.**

<p>Partially</p>	<p>Key point - of particular concern from a compliance perspective</p>	<p>Some relevant updates were made but overall, this point is not considered to be adequately addressed.</p> <p>General information on how the SEA process has been incorporated into the development of the plan is provided but limited information is included on how the SEA has</p>	<ul style="list-style-type: none"> • The SEA report should include environmental assessment for the demand management options – DMOs such as mains
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influenced the development of the plan, including option assessment and selection. For example, cumulative assessments are included in section 6 but are high level because of limited location information available for DMOs. No HRA/WFD/BNG assessments are included for DMOs so it is not clear how environmental assessments have informed the plan.

Plan level alternatives are described in section 2.2 which explains that the 3 alternative plans (least cost, Ofwat Core plan and Best Environment/Society plan) all have the same outcomes as the best value plan and therefore haven't been considered further. It is not clear whether there are alternatives to the temporal implementation of the plan that could be considered or whether alternative options were considered for the YW transfer option.

Justification for selecting the preferred plan is outlined in section 6.6 but this mainly just states the plan meets objectives – it doesn't state how, or why this should be selected over other options.

Note the revised plan includes an option not considered in the SEA as set out in item 1.

The lack of information on alternative plans in the SEA and a clear outline of the reasons for selecting the preferred options and ultimately the dWRMP 24 is a potential compliance issue.

replacement have potential for impacts.

- Include all the evidence i.e. results of the high-level screening, assessment tables of all options considered (not just the 5 supply options not taken forward), and assessment of the preferred plan and alternatives.
- Clarify whether there are alternatives to the temporal implementation of the plan that could be considered.
- Information on whether there are alternative options considered for supporting the Yorkshire Water transfer should also be presented. If no option alternatives exist this should be stated. (For example, which source was selected and why? Will it be a new abstraction or infrastructure? Would that differ dependent on location and therefore have different impacts?).

			<ul style="list-style-type: none"> Expand the justification for selecting the preferred plan over other options. Clearly setting out how the SEA has influenced the WRMP.
Item 4: Improve detail regarding the study area and baseline information.			
Partially	Moderate – should address	<p>The study area may not be appropriate to assess all potential significant effects and the baseline information used in the SEA process is incomplete. The issues raised have been partially addressed.</p> <p>The fact that effects may go beyond the boundary of the NWL supply area is acknowledged both in Section 3 and Appendix D, and again in Section 4. It is noted, however, that the maps in Appendix D only show the extent of the environmental receptors within the NW's supply region. Sections 4.1 and 4.5 reference buffering to consider impacts on receptors outside of NWL appointed area, although does not appear to cover the Yorkshire Water (YW) area. The wider receptors and how covered within the WReN or YWS assessment should be described to ensure the full spatial extent is explained.</p> <p>Baseline reflected in the Environmental Report (ER) is high level and does not appear to include consideration of the</p>	<ul style="list-style-type: none"> Provide further detail on how impacts on receptors within YW's area have been assessed. Describe the overlap with WReN and YWS SEA to ensure the impacts of NWL operations and potential YWS transfers are fully assessed in terms of receptors both within and outside of the NWL appointed area. Include a sub-section on spatial scope in the SEA. This should show the full spatial extent of the environmental receptors depicted in the baseline information maps in Appendix D, not just the extent within the NW's supply region (or fully explain why these aren't

		<p>condition of receptors except for water quality (WFD indicator).</p> <p>Key issues identified for each baseline topic do not appear to be presented in the SEA ER. There isn't a clear correlation between the review of the baseline information (present and future) and the identification of key issues.</p> <p>The SEA report should include a specific sub-section titled "geographical or spatial scope of the SEA" where the geographical context is clearly identified. The description of the geographical area needs to reflect that the SEA study area is comprised by the supply area plus the areas of cross-boundary effects identified through the HRA and WFD assessments.</p>	<p>included in the NWL appointed area SEA, where this information would be found and how it has informed the NWL appointed area SEA i.e. how was the external information used in decision making)</p> <ul style="list-style-type: none"> • The baseline reflected in environmental report does not adequately consider the condition of the baseline. • Present key environmental problems / issues for each of the SEA topics and link these to the SEA Objectives in Table 3.2
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Item 5:
Mitigation measures should be presented in line with the mitigation hierarchy and clarity on how the mitigation will be secured is needed.

Partially	Moderate – should be addressed	More information has been included on mitigation for DMOs in Table 7.1, recognising specific locations are not known at this time.	<ul style="list-style-type: none"> • Avoid over-reliance on YW's assessment – mitigation and monitoring requirements for the
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No reference is made to the mitigation and monitoring requirements for the YW transfer, relying on this being addressed in the YW SEA. More information could be provided on this to show these have been adequately considered.

As discussed in item 1 the proposal to reinstate mothballed works (viewed by the EA as a new option) added to the revised plan has not been assessed under the SEA and mitigation will need to be assessed.

Tees Transfer should be included in NWL's assessment, particularly focussing on any mitigation needed within NWL's operating area which may be difficult for YW to assess.

- Assess mitigation needs for the new supply option as set out in item 1.
- Ensure the incremental increases in use of the Tees abstractions (and possible support from Kielder) to support Teesside and then YW are assessed within the NWL appointed area (ensuring the needs of NWL forecast demands and increased abstraction is assessed independently from the YW needs).
- Clarity on how the mitigation will be secured is also needed.