Draft Water Resources Management Plan 2024 Statement of Response

YorkshireWater

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1. Introduction

This report is our statement of response to our Draft Water Resources Management Plan 2024 (draft WRMP24) consultation.

We published our draft WRMP24 for consultation on 18 November 2022. The consultation period was 14 weeks and closed on the 24 February 2023. This statement of response sets out our considered responses to every representation that we received on our draft WRMP24 during the consultation process. Our revised draft WRMP24 (rdWRMP24) document will be updated with the post draft WRMP24 changes and our reasons for making them. The next step in this process will be to produce a final WRMP24 document.

The WRMP is revised every five years in line with the Water Industry Act 1991. The draft WRMP24 technical documents, supporting environmental assessment reports and a non-technical summary (NTS) are available to view on the Yorkshire Water website (https://www.yorkshirewater.com/about-us/resources/water-resources-management-plan/) alongside the WRMP19 documents, which WRMP24 will supersede once final. Paper copies of our draft WRMP24 were available on request from our Head Office in Bradford.

Our draft WRMP24 highlighted a risk of a supply demand deficit in our area. This was primarily due to the impact of moving to the increased level of drought resilience (using the stochastic supply modelling methodology) and climate change on supply, the loss of an import from Severn Trent Water in 2035 and a significant abstraction licence reduction. To offset these risks, we presented a plan that invested in demand reduction and new supplies and was derived from our best value decision-making process. The draft WRMP24 consultation invited stakeholders and members of the public to comment.

2. Our Consultation Process

Following Defra guidance, we have continued to seek to engage with a broad range of stakeholders and customers throughout the process. This is to ensure we understand all views and can consider these, and where possible, incorporate them into our plan.

Stakeholders and customers have been consulted from the start of the process through multiple channels and their views and representations have been captured and this will be reflected in how we have shaped our plan.

It is important to ensure there is maximum opportunity to gain insight from a broad range of views with sufficient in-depth focus and so to raise awareness of the consultation we have engaged comprehensively.

To do this we have:

- Notified statutory consultees and interested parties most likely to be affected by our plan via email.
- Held a webinar with the Yorkshire Water Leaders Board (representatives of councils and local authorities in Yorkshire) in December 2022.
- Held a webinar for all statutory consultees and interested parties in February 2023.
- Hosted an online customer survey on the Yorkshire Water website for members of the public to complete.
- Carried out more detailed customer research with the Yorkshire Water "Your Water" Community, which is a group of informed customers who provide feedback on our plans and strategies. This included a survey and focus groups.

2.1. Non-Technical Summary – Key Areas for Consultation

The non-technical summary (NTS) contained a list of key areas for consultation questions to focus on and we aimed to seek representations in these areas to help shape the WRMP. They are summarised as follows:

The plan objectives. Aims to determine level of support for the objectives identified in the plan and understand if there are any further objectives that should be included.

Levels of service. Seek views on our proposed levels of service for drought resilience, including how quickly we should aim to meet the government's target for 1 in 500-year levels of drought resilience. We anticipate the need to make changes to our final plan because of the on-going 2022 drought and seek to understand customer support for the need to make changes to our final plan to support future resilience.

Policy requirements for demand reduction. Our dWRMP sets out policy objectives on demand reduction that reflect the National Framework for Water Resources, Government expectations and Environment Agency guidelines – we seek views on these policies including a 50% leakage reduction by 2050 and a per capita consumption of 110 l/h/d by 2050.

Uncertainty, risk, and relative cost. Explore views on the levels of certainty associated with proposed solution types and the associated relative costs. Use scenario-based propositions to assess preferences.

Range of options considered to address the supply demand deficit. Seek views on the range and appropriateness of demand options. Explore support for some specific policy areas including the government's proposed scheme for water efficiency labelling and potential Yorkshire Water policy to install a meter on 'change in occupancy', i.e. when a new customer moves into a house that was previously unmetered. Also seek views on the range of supply options and identify any other options that could be considered.

Metrics for assessing the best value plan. Explore views on the levels of support for the proposed metrics. Are there any other metrics that should be included?

Preferred plan. Seek views on the levels of support for the preferred plan. Will seek opinions of preferred approach to specific requirements such as replacement of the Severn Trent Water import. Seek views on the levels of support of the longer-term investment for the transfer of water from Northumbrian Water.

2.2. Representations Received

In response to the WRMP24 consultation we received engagement from a broad and varied set of stakeholders, often with multiple areas of interest across the themes in our plan. We had representations from 19 (including non-household) statutory and non-statutory consultees and from one member of the public. We also received 12 responses to our online survey, 246 responses through our 'Your Water' Community survey and focus group sessions. The table below lists statutory and non-statutory respondents.

Table 1. Types of stakeholders that responded to the dWRMP24 publication.

Stakeholder	Type
Environment Agency	Regulator
Arqiva	Utility/retailer*
Business Stream	Utility/retailer*

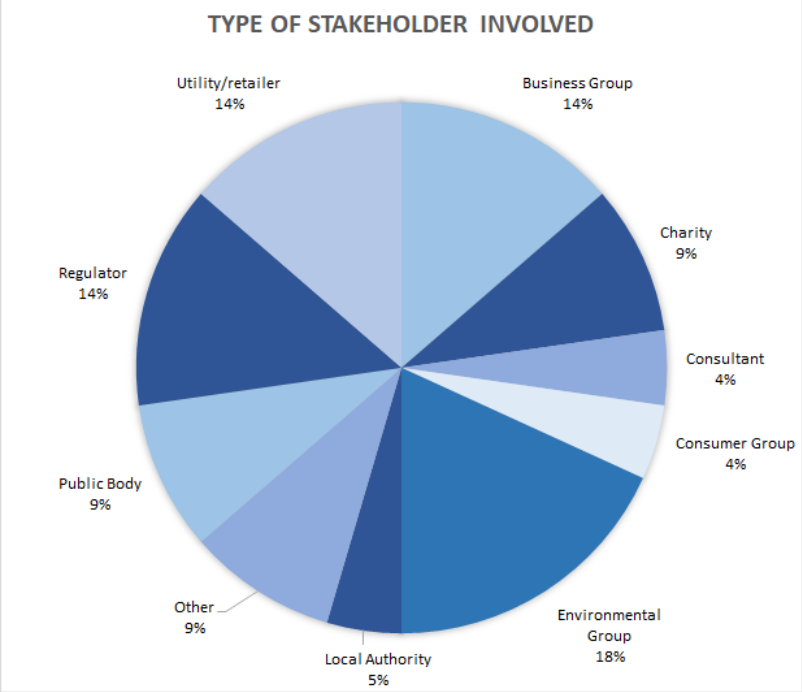
Stakeholder	Type
Calder Rivers Trust	Environmental Group
CCW	Consumer Group
CRT	Charity
Everflow	Utility/retailer*
Historic England	Public Body
MOSL	Business Group
MOSL Strategic Panels & Committees	Business Group
National Trust	Charity
Natural England	Regulator
Ofwat	Regulator
Peak District NP	Public Body
SYMCA	Local Authority
UK Water Retailer Council	Business Group
WaterScan	Consultant
Waterwise	Environmental Group
Water Resources West	Other
Individual	Other

** This includes non-household retailers*

Table 2. Tallied stakeholder type

Stakeholder type	Tally	Percentage (%)
Business Group	3	14
Charity	2	9
Consultant	1	5
Consumer Group	1	5
Environmental Group	4	18
Local Authority	1	5
Other	2	9
Public Body	2	9
Regulator	3	14
Utility/retailer	3	14
Total	22	100

Figure 1. Type of respondents expressed as percentage %



2.3. Representation Themes

Each entry for all respondents has been assigned a main theme and then categorised. Table 3 displays the list of themes, beginning with the most common and ends with the least common theme for each respondent.

The themes raised by respondents have also been tallied and expressed as a percentage, shown in figure 2. This is indicative and for illustrative purposes to show the main issues raised by stakeholders.

Figure 2 shows that most of the representations relate to these areas:

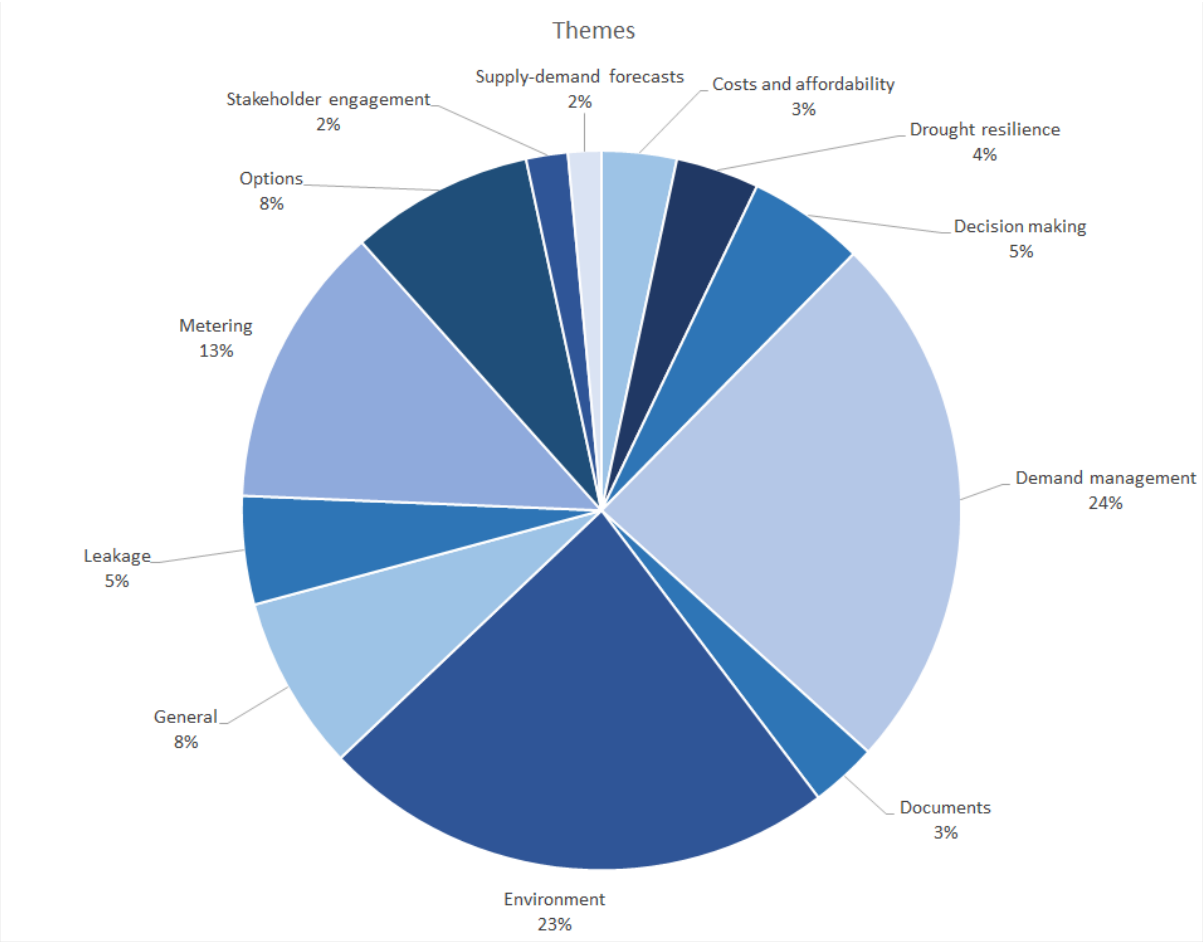
- Demand Management (including leakage and metering) and the need for additional information relating to this within the rdWRMP24.
- The environment, environmental assessment of options and the phasing of schemes.
- Uncertainty around the options proposed and the range of options in the draft plan.

Broadly speaking, the themes correspond well with the areas of the dWRMP24 that we proposed for consultation questions.

Table 3. List of respondents and themes of response

Respondents to the draft plan consultation	Themes of response
Arqiva	Metering; Demand management; Leakage
Business Stream	Demand management; Metering; Drought resilience; General
Calder Rivers Trust	General
CCW	Demand management; Documents; Metering; Leakage; Costs and affordability; General
Canal & River Trust	Options
Environment Agency	Environment; Drought resilience; Options; Demand management; General; Decision making; Leakage; Supply-demand forecasts
Everflow	Demand management; Drought resilience; Metering; General
Historic England	Environment; Options
Individual	Documents
MOSL	Demand management; Metering; General
MOSL Strategic Panels & Committees	Demand management; Metering
National Trust	Environment; Options
Natural England	Environment
Ofwat	Demand management; Decision making; Costs and affordability; Options; Leakage; General; Supply-demand forecasts; Metering; Documents; Environment; Stakeholder engagement
Peak District NP	Environment; Options
SYMCA	General; Environment; Leakage; Options; Costs and affordability; Drought resilience; Metering; Stakeholder engagement
UK Water Retailer Council	Metering; Demand management; General
Water Resources West	Stakeholder engagement; Options
WaterScan	Environment; Demand management; Documents; General; Metering; Stakeholder engagement
Waterwise	Demand management; Leakage; General; Metering

Figure 2. Breakdown of themes by category.



3. Changes to WRMP24 Following the Draft Submission

We have carefully considered each of the comments made in representations and how we should address them to take account of them in our revised plan.

Our rdWRMP24 document will not be published until Autumn 2023, however, our statement of response provides sufficient detail to enable us to publish this ahead of our revised draft WRMP24.

Where changes have resulted from the consultation feedback, or where our plan has changed since the draft publication for other reasons, the plan will be amended and the changes clearly shown in the revised draft WRMP24 in the Autumn.

The tables in the appendices provide our response to each individual representation, stating whether the representation has led to a change in approach, explaining why

and where we will be making changes to our draft WRMP24, and what the key changes are.

3.1 Key Changes

The key changes we have made in response to the consultation are summarised below. In addition, changes relating to developments in the plan as part of the ongoing technical programme of work are also outlined.

Demand Management (including leakage and metering) It was clear from consultation that demand management is a priority for most of our stakeholders. You asked us to consider clear, more granular plan including options for household and non-household efficiency and demonstrate how we ensure the best value in our plan.

- Our draft plan committed to carrying out further work on the leakage, PCC and non-household demand reduction options. This work has been completed and the updated demand reduction options, including cost and benefit data, will be included in the rdWRMP24 submission and the WRP tables. The strategies and options for achieving regulatory demand reduction targets have been developed using a demand option optimisation model and the WRMP decision making process.

The Environment and Environmental Assessment A number of comments were received from stakeholders relating to the environmental aspects of our plan. Some of these requested further clarity in such things as the spatial extent of Strategic Environmental Assessment (SEA) area, and the assumptions and limitations concerning mitigation measures. Others were concerned with the environmental issues at a more strategic level.

- Where further clarity has been requested, the SEA Environmental report has been updated, as detailed to consider representations.
- We are aware of the limitations of the inter-cumulative assessment at the dWRMP stage. When submitting the dWRMP we did not have visibility of the plans from neighbouring water companies or regional groups. However, now these have been published we will be updating the SEA and will address any evidence gaps where we can and put proposals in place where this may not be possible in the timeframe for this plan. We have been, and still are, actively engaging with the other water companies/regional groups to agree a way forward in regard to assessing the in-combination effects of projects.

Timing of Key Projects A key driver for investment in our plan is the river Derwent abstraction reduction. Representations from the Environment Agency (EA) and Natural England (NE) questioned the timing of the river Derwent abstractions reductions suggesting that the licence reduction date of 2050 was too far in the future.

- The date for this has since been brought forward to 2040 which also aligns with the regional plan and the NWL WRMP24. This date is subject to further investigations and options appraisal to determine if the revised date and solution is both deliverable and best value.

- In addition, since the draft WRMP24 submission it has been confirmed that the AMP7 Strategic Resource Option to raise the reservoir levels in the Derwent Valley is no longer a valid option. Without the reservoir scheme Severn Trent must terminate the existing transfer to meet its own WRMP24 needs. This is in accordance with the bulk transfer agreement that states if notice is provided in 2030 the bulk transfer of water from Severn Trent to YW can cease in 2035. To offset this loss, we must start to implement a 'backfill option' well in advance of the notice period and the delivery programme has been brought forward as part of the rdWRMP24 plan.

Options Development We received feedback that our dWRMP24 contained a limited number of supply options and that we should review the timing of these and associated risk for delivery.

- In response we are reviewing all options and where appropriate revising delivery dates. We will carry out further options identification for appraisal in WRMP29 to assess a wider range of alternatives to the options in WRMP24. We can confirm that this work will be timed to be available based on the need drivers, availability of the WINEP studies and the regulatory process for funding additional options (RAPID). We will include additional information in our rdWRMP24 adaptive plan monitoring.

Baseline Demand Forecast We have made some minor changes to the baseline demand forecast, process losses, outage and headroom components, which will be described in more detail in the respective component sections in the rdWRMP24 and where applicable in updated appendices.

Modelling capability We have replaced our 'WRAPsim' supply model with a 'PyWR' model and recreated the WRMP24 baseline supply scenarios. This has resulted in an increase (non-material) in the Grid SWZ deployable output volume. The PyWR model allows us to model the stochastic inflows better, as it can accommodate large datasets.

Communication the consultation included feedback that the Non-Technical-Statement (NTS) could be more customer-friendly and asked us to consider more visual and adapted approaches. We will review our NTS and ensure we provide a customer friendly and accessible document with visual aids to support the narrative.

4. Assessment of Change on Overall Approach

As with the draft WRMP, the strategy remains a twin track approach delivering demand reduction and supply side solutions to close the supply demand deficit. We are continuing to evaluate potential alternative pathways to manage long term future uncertainty, but we are not currently anticipating any material changes to the overall approach to strategy.

The **demand management strategy** targets will remain the same (50% leakage reduction, 110 l/h/d PCC by 2050 and a 15% reduction in business demand by 2050 as per the guidance). The interventions that will comprise the preferred solutions also remain consistent with the draft plan e.g. smart metering, mains renewal, active leakage control and water efficiency measures such as flow restrictors and targeted intervention on higher users for both household and non-household etc.

However, the trajectory for reaching these targets is being re-modelled to enable more optimisation. The combination of these options will change in the rdWRMP to reflect the various levels of benefits associated with each type. We will also be providing greater granularity of benefit, cost and intervention type.

The **supply side strategy** will be similar to that presented in the draft WRMP24. Near term surface and groundwater solutions remain key for the AMP8 strategy. These require early feasibility assessments which may result in some scheme lead times being adjusted to reflect the need to manage risk from early in the planning period.

In the medium term we have committed to developing further options to allow more adaptive planning as part of our ongoing management of risk associated with the supply demand deficit. These options will be developed ahead of and for inclusion in our WRMP29 plan.

The larger strategic supply solutions in the draft plan are highly likely to remain in the revised draft plan same as they are key to replacing lost deployable output (DO). This includes, for example, schemes referred to as 'back-fill' options to offset the loss of the STW import (by 2035) and to address the uncertainty represented by the Environmental Destination requirements.

The **adaptive plan strategy** remains focused on the uncertainty and risks relating to the most likely triggers for new large-scale investment such as the River Derwent Environmental Destination output and the risk of not achieving the ambitious demand reduction. There is no longer a feasible pathway for the Severn Trent Water transfer to continue and this will be removed from the revised plan. We will continue to explore the phasing of schemes against all scenarios including various levels of climate change impact and drought resilience. We will revaluate our core pathway to account for the removal of the pathway for continuing the Severn Trent Water transfer and any other changes that alter the no regrets solutions. We shall also update our monitoring plan to align with the adaptive pathway updates and ensure we have a robust monitoring programme with timely decision points and triggers.

5. Next steps

The next step in the process will be the resubmission of our revised draft WRMP24 which will include the publication of the technical main plan (and Strategic Environmental Assessment, SEA), non-technical summary, updated WRP tables and updated technical appendices where required. We expect to publish these documents in the Autumn of 2023 and will also be undertaking regional water resource plan alignment activities to ensure our WRMP aligns with neighbouring water companies WRMPs.

Following resubmission of our revised draft WRMP24, the Secretary of State for the Environment, Food and Rural Affairs (Defra) will notify us when we can publish our plan as final.

Once our WRMP24 is finalised, it will be sent to Defra and published on our website. We will notify all stakeholders who has made a representation on the draft WRMP24 and make paper copies available in our Head Office. Two tables are presented in the Appendices in response to consultation comments.

As highlighted previously, full responses to the draft WRMP24 consultation can be found in the appendices in section

6. Appendices

6.1. Table of EA Comments and Responses

Table 4. Environment Agency comments

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Legal compliance		Direction not complied with 3 (k)	Description 3. (1) In accordance with section 37A(3)(d), a water undertaker must include in its water resources management plan a description of the following matters - its intended programme to manage and reduce leakage, including anticipated leakage levels and how those levels have		It should be noted that the finalised programme is still subject to confirmation as it will necessarily need to be a part of the optimisation process for our rdWRMP24. We do however want to share progress since the dWRMP24 submission in this area as far as we can at this stage. Yorkshire Water has created 7 leakage programmes of differing leakage trajectories resulting in a 2050 target of between 40-60% leakage reduction. These programmes have been created utilising 15 intervention types each of which having a specific cost curve as opportunity and benefits diminish over time. These leakage programmes were created using the RPS Strategic Optimisation of Leakage Options for Water resources (SoLow) tool. This tool is recognised as best practice across the industry and is used to optimise the interventions within the plan to deliver the leakage targets and the trajectory of leakage improvement within the plan. Each scenario Yorkshire Water has created includes yearly Leakage targets, the volume of leakage reduction from each intervention selected within the programme and the yearly cost of each intervention in the programme. The

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
			been determined		process Yorkshire Water has undertaken is in accordance with the requirement 3. (1) In accordance with section 37A(3)(d), These Scenarios will be used within the WRMP model in order to produce a preferred leakage strategy which will be presented within the rdWRMP. Fine optimisation of the scenarios will occur after WMRP optimisation to finalise the plan, accommodating any interim leakage targets which are required to be achieved to maintain a Supply Demand balance through to 2050, as well as setting the final leakage reduction requirement from the plan which may be between the increments of investment currently modelled, such as 53% leakage reduction, as opposed to 50 or 60%. The 7 scenarios currently created consider 3 different leakage targets by 2050, 15 leakage intervention types and Policy constraints such as Mains Renewal and Smart Metering. We will update Section 8.4.1 of the rdWRMP24 with the preferred leakage strategy and programme to manage and reduce leakage, including anticipated leakage levels and how those levels have been determined when we have finalised our preferred 25-year trajectory. We will update the adaptive monitoring plan in Section 10.3 to include for metrics that relate to in-AMP monitoring of the leakage program progress both in year and 3-year rolling (post convergence methodology), which will be linked to the wider longer term adaptive plan.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Major Recommendation 1.	Issue 1 Resilience in the context of the 2022 drought	The drought of 2022 challenged most companies and was one of the most significant droughts of recent times. The drought saw very high demands and highlighted some areas where resilience may need to be improved. The company should learn from any issues experienced. The company should provide a new section in its statement of response and/or revised draft plan which covers	Failure to identify risks from conditions which could challenge systems or impact on supply demand balance could reduce the effectiveness of the plan. Not considering the inclusion of any new activities undertaken, options considered or any measures not currently included in the drought plan or dWRMP modelling is a missed opportunity to improve the	The plan narrative should clearly include how experiences from the 2022 drought have been considered e.g. • Can the company demonstrate resilience and also look to improve it • Are any temporary or new measures likely to be made permanent or added to drought plan options • Do assumed benefits from measures reflect the latest understanding/ evidence based on data collated e.g. change in demand associated with	The 2022 drought occurred at the same time as we were completing our dWRMP and, indeed, the drought did not end until after our dWRMP24 was published for consultation - it was not possible, therefore, to include analysis of, and lessons learned, from the 2022 drought within our draft plan. The EA's updated Water Resources Planning Guidelines, published in March 2023, set out a clear expectation that plans will include an Appendix on the 2022 drought, lessons learned and proposed actions in response. Our rdWRMP will include such an appendix (appendix E) and we will also consider if the lessons learned from the 2022 drought require a change to the rdWRMP, ensuring all areas of section 9.5.1 of the revised Water Resource planning Guidelines in section are covered. The critical period demand for our Grid SWZ is presented in Table 3d and discussed in Section 4.3.6 of our draft plan. We have reviewed the household consumption data for the four-week critical period in the 2022 summer. To do this we extended the analysis carried out for the draft critical period, which assigned probability of peak demand by applying cumulative distribution functions (CDFs) to the peak volumes. This resulted in an 18% normal to critical period factor for 2022, the same as the 2018 dry year. The critical period household demand has therefore not changed. The East SWZ has sufficient headroom not to require a critical period scenario.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		any issues identified. The company should refer to the updated water resources planning guideline for a list of areas should be considered. For example, the company implemented an urgent and new drought measure when local supplies were at risk. The plan also identifies for the final plan that lessons from 2022 will be incorporated.	plan. Local supply issues might suggest not meeting resource zone definition adequately.	temporary use bans • Whether levels of service are appropriate • Updating deployable output where understanding has improved around source responses to drought • Confirm whether any relevant dead/emergency storage assumptions are accurate • Demand forecast assumptions including extent/duration of peak demands compared to those used in plan and whether impacts critical period planning	We also included a 10% critical period uplift for non-household demand and an 8% leakage critical period uplift. Both assumptions are based on the 2018 dry year. We shall review 2022 data and reassess the assumptions. We will update the rdWRMP24 with reference to these changes.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
				• Identification of schemes to improve connectivity and WRZ integrity and remove infrastructural/operational constraints • Bulk supply agreements & pain share • Appropriateness of outage forecast If experience has identified issues with the current drought plan the company should note that its drought plan might require an update.	

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Major Recommendation 1.	Issue 2 Resilience of parts of the Grid WRZ to drought	In 2022, the company experienced a sharp and severe drought that placed strain on parts of its Grid WRZ. This resulted in an intervention to lay pipes across moorland to transfer water between catchments and reservoirs to support an operational area within the Grid WRZ. The reference in section 8.3.1 of plan infers that the work on Water Supply System Resilience Strategy (WSSS) was not finished. This could mean not all	Pinch-points in the Grid WRZ may become apparent only when stress-tested by severe events. If these water collection and distribution issues are not addressed promptly, they will continue to represent risks to security of supply in future events. Of particular concern is the robustness of supply to areas served by the small local sources identified in the "Allowing for Uncertainty" technical	In light of its experiences in the 2022 drought, the company should: • Identify and incorporate all operational and source provision changes needed into its final plan • Finalise WSSS project and ensure the outputs feed into the final WRMP.	As above, we can confirm that our rdWRMP will include additional information, in appendix E relating to lessons learned from the 2022 drought and our proposed forward plan in response. In terms of the reference to our 'Allowing for Uncertainty' technical report, Table 4.5 in this report shows potential water quality risks over the life of the plan. It is not identifying local supply-demand risks or suggesting these areas are priority drought risk areas. The water supply systems studies are 40% complete and will be concluded in AMP8. Risks identified in the studies will be built into the PR24 business planning process taking a risk-based approach. Where solutions demonstrate an increase in deployable output these will be included in the optimisation process for the WRMP going forward (for consideration in the best value plan).

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		locations with resilience risks have been incorporated within the WRMP.	report Table 4.5.		
Major Recommendation 1.	Issue 3 Critical Period and peak demands	In recent drought (and freeze-thaw) events, the company has experienced exceptional peaks in water demand and has been able to meet these, albeit with longer-term impacts on stocks.	As the water company assesses deployable output using Level of Service as the constraint, it is unclear what demands the supply system is capable of meeting.	The company should better explain: • Its' plans to test the maximum volumes deliverable in preparation for peak demand events. • How the supply system would be able to cope with peak	For the critical period modelling we did not assess deployable output (DO) using Levels of Service, but using demand met. We will carry out further work to ensure we can meet the modelled demands, as the modelling has been based on our WRAPsim/PyWR models which are at a coarser spatial resolution than out WRAPlan model. We will demonstrate an ability to meet high demands using our more detailed WRAPlan model.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		In its consideration of a Critical Period for the Grid WRZ, the company forecasts demands potentially greater than recently experienced but does not discuss whether the supply system, from abstraction points through to taps, is capable of delivering water at these rates		demands in excess of those experienced in recent droughts.	

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Major Recommendation 2.	Issue 4 Limited pool of options	Only pre-existing options have been included in the draft plan. A large proportion of the Unconstrained Options listed in Appendix 17.1 are closed down, without evidence that they have been reviewed or reassessed to widen the pool of options available. We would expect a more diverse portfolio of options that can help resolve the potential planning problem as opposed to relying on a	The lack of new ideas and wider options means that we have no confidence that the company has explored all the options available to it. Without such exploration, we cannot be sure that the options selected are the best solution to the company's challenges.	We encourage the company to: • Develop a wider range of feasible options capable of contributing to meeting the company's supply side challenges in a flexible way • Use these to develop the adaptive plan and to demonstrate that the selected plan provides the best-value solutions to the challenges the company faces.	Our supply option development for the dWRMP24 submission focused on the need for supply options to meet the critical period and to reduce drought risks (alongside meeting the demand reduction policy requirements) as part of the twin track approach. However, in spring 2022 the environmental drivers changed and created a need for large schemes that resulted in the Tees transfer option being part of the solution. Our draft plan recognised the requirement to explore alternatives and included further options development as part of future work post WRMP24. This means that for the rdWRMP24 submission we are not in a position to develop a wider range of options that could be tested as part of the adaptive planning approach in our WRMP24. We can confirm however that the current range of supply options meet the large range of uncertainty presented by the late-stage addition of environmental destination, whilst recognising that additional clarity on how these supply options will be developed (along with their alternatives) requires updating, which we will do in our rdWRMP24 submission.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		potential transfer which has not been fully developed. Third party option via market information portal was also discounted due to late submission but there is no commitment to review this for final plan			As agreed with the EA as part of our post dWRMP consultation, our rdWRMP24 submission will set out a clear forward programme of activity and this includes work to identify and assess the potential for new options, both in-region and as inter-regional trades (to inform future Regional Plans), and we are committed to starting this work before the end of 2023. Ahead of the rdWRMP publication we can state that it will reassess the best value plan for near-term supply-side options delivery in AMP7 and will include any preliminary investigations (planning, environmental assessments etc.) on AMP7 supply side options takes place between 2023 – 2025, should they be required. We will update the best value, action and monitoring plan section of the rdWRMP24 with this information.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Major Recommendation 2.	Issue 5 Use of "mandated" Options	All the options in the Preferred Plan are "mandated", i.e., their selection within the assessment tool is compulsory. This effectively means optimising appears to be on timing rather than a genuine option selection.	By constraining the options available to the assessment tool, the company appears to steer towards the options it wants rather than the best suite of options to address the company's challenges	Demonstrate how the use of "mandated" options contributes to, rather than constraining, the development of the best solution.	The optimisations are described in section 9.2 of the draft technical document. We have optimised on cost, carbon, environmental and social and the six capitals to meet the baseline deficit. The range of options selected provided a subset of the feasible options (referred to as a portfolio in the text) from which the candidate solutions are developed and assessed against the metrics. Options are mandated into the plan if they support the demand policy objectives, or they were selected in the optimisation runs described in section 9.2. An exception to this is the new interconnector which is essential to backfill the STW transfer loss and is therefore mandated into all scenarios. We compare different combinations of the options in the portfolio to assess against the best value metrics. If we did not mandate options in at this stage, we would not be able to meet the broader objectives. We would instead be basing the plan on the optimised output for meeting the PWS deficit only. We recognise that there are limitations to our modelling process and we shall review this for WRMP29with a view to be able to constrain objectives into the optimisation phase instead of manually constraining options into meet specific objectives. This will involve re-scoping of the wider modelling process which is not viable for WRMP24.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Major Recommendation 2.	Issue 6 Groundwater options to be implemented 2025-30	The water company is responsible for managing its supply-side challenges in a timely fashion. Be aware that any new or varied abstraction licences will be subject to the standard investigation and application process, regardless of their identification in this plan as solutions to pressing near-term supply challenges.	Licensed resource may not be available in the timescales envisaged by the water company	Demonstrate that the timetable for bringing on-line new resources is practicable. • Explain what measures the company has put in place to manage risks to security of supply from unforeseen delays in bringing these supplies on-line.	We note the EA's comments in respect of new sources and will ensure that our rdWRMP includes a realistic timeframe for bringing new sources into supply where these are required and justified by the planning process. This will also include a description of the mitigation for any risk of delay to implementation. We will update the supply options section of the rdWRMP24 submission to include for a brief description of the lead times and justifications for these options along with mitigation if required. We shall consider if there are any alternative options that we could develop in parallel until preliminary investigations are complete. However, due to the early deficit in the plan we are limited as to which options can be delivered in time to reduce the immediate risk. We will include information on any potential alternatives in the best value plan section of the rdWRMP24 technical report and update the monitoring section to reflect the changes.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Major Recommendation 3.	Issue 7 Early delivery schemes	Yorkshire Water outline in section 10 and table 9.10 that there are early delivery schemes with build start dates in 2022/23 while several others start in 2024/25. There is little evidence to show that these options have either started or will be implemented as outlined. As an example, R37b(ii) has an option benefit from 2025/26 of 33.50Ml/d. The 2025/26 surplus in Grid RZ is 19.58Ml/d. Failure to deliver the option on time	Insufficient progress on schemes could lead to supply deficit.	To ensure security in supply we would expect the final plan to set out: • a description of the progress of early delivery schemes • whether the schemes are on track • the risks to supply of delayed implementation and any mitigation required as a consequence	We will ensure that our rdWRMP includes a realistic timeframe for bringing new sources into supply where these are required and justified by the planning process. This additional information will include a description of how we intend to track progress of early delivery schemes and risk mitigation for delays. The information will be included within an updated section in the monitoring plan within the rdWRMP24 and will set out the activities we will undertake ahead of AMP8 for those schemes identified for 2022/23. Activities referred to will only be identified once we have undertaken the rdWRMP24 optimisation modelling. We will ensure that when we undertake the rdWRMP24 optimisation modelling we will be scrutinising the associated lead time assumptions and ensuring that the sequencing of early start supply schemes is put forward on a more realistic basis. We will use that activity to inform further discussions with the EA on which schemes we believe to be the most realistic to start early and why.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		might therefore present a risk to supply. Also linked to recommendation 2 and the delivery of groundwater schemes.			
Major Recommendation 4.	Issue 8 Alignment of transfer implementation dates	Table 9.6 p331 gives the implementation date of the Tees transfer as 2050. Northumbrian Water's draft plan give the implementation date and water to be transferred as 2040. We would expect the representation of options and schemes to be consistent between these plans.	This inconsistency creates uncertainty and could lead to water companies working to inappropriate timetables, with consequent risks to supply	Work with Northumbrian Water and WReN to ensure that all plans contain consistent timetables for implementation. This is specifically an issue about both the representation of the Tees transfer but also the Environmental Destination timetable and potential for licence changes being brought	Following the comments received on our dWRMP, we have revisited the timeline for Environmental Destination in relation to abstractions from the Yorkshire River Derwent, which is a key driver for YW's need for the Tees Transfer. Further to this review we propose to bring forward the assumed licence change date from 2050 to 2040. We will update section 3.8 of the plan (*Sustainable Abstraction and Environmental Destination*) to reflect this position and provide more context on the decision. We will also update the Grid Surface Water Zone preferred plan section of our rdWRMP24 submission where necessary in relation to the best value plan. We can confirm that these dates are aligned with Northumbrian Water and WReN's plans.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
				forward from the company's assumed 2050 date (see also recommendation 5).	
Major Recommendation 4.	Issue 9 NAV water company representation	There is some evidence that NAVS have been considered within the plan and assumptions set out in the plan about future forecasts. There is however no reference to the alignment of plans in terms of working together on water efficiency ambitions and how NAV bulk supply	Statutory plans may not align and government objectives will be harder to meet.	Set out how the company will work with all water companies (including NAVS) in developing plans (recognising new NAVs might be established after the WRMP24 plan is published).	To date the demand from NAVs in the Yorkshire Water supply area has been low. There are currently no NAVs operating in the East SWZ. In the Grid SWZ, NAV exports in the 2019/20 base year were below 0.1Ml/d. In 2022/23 NAVs have increased and a volume of 0.6Ml/d was exported. Although the volume is still extremely low it does show NAVs are increasing and we do expect new NAVs to be established after the WRMP24 plan is finalised. As the number of NAV properties was negligible at the time of producing the plan and there was no data on which to base a forecast, we did not include NAV exports in the WRP tables. We will add an export volume to the rdWRMP24 tables. However, the WRMP property forecast includes all growth and there is not a separate forecast of future NAV properties. We have therefore not forecast an increase in NAV exports beyond 2022/23 as this would double count the properties already included in the zonal property forecasts. This is in line with the EA's March 23_WRPG Feedback responses. Our rdWRMP24 will include additional information on our engagement process with NAVs and how

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		arrangements are managed.			we will work with them going forward. We expect this information to be updated in our section on stakeholder engagement. Information on the NAV volumes for the pre-plan years will be updated in the water transfers section.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Major Recommendation 4.	Issue 10 Alignment with net zero	While a link to the journey to net zero is provided within the plan, the Humber industrial cluster is a significant source of the UK's carbon dioxide emissions. Developing a company specific net zero ambition is good, but the plan must work to support ambitions of other sectors to decarbonise. This could mean supplying other sectors from the PWS network or developing options that	Concern that not fully reflecting the non-household demands for water means to sub-optimal solutions or a plan not able to support net-zero.	As with the feedback to be provided within the regional plan consultation, we expect to see: • flexible options that can adapt to changes in non-household demand • evidence that the net zero ambition beyond its own operations has been considered • an adaptive plan considering varied levels of demand over the period before 2030 to ensure a robust set of options is in place and deliverable to support the net zero ambition (supporting other	We recognise that the Humber industrial cluster is a significant player in the UK's net zero ambitions and are committed to supporting activity that helps to deliver on those ambitions. We note that in respect of the Humber Cluster specifically, there is currently more certainty in the volume of water required for the South bank of the Humber (Lincolnshire / Anglian Water) where the majority of current known development is planned. We are in discussion through developer services with the Hydrogen-to-Humber (H2H) project at Saltend as well as other potential industrial users on the North bank. Their likely demands for water (volume both peak and average, quality requirements, location, and timing of need) remain uncertain at this point in time. As part of our discussions with potential industrial users, we are also exploring other options for their water supply, such as non-potable sources for use where appropriate. Our rdWRMP24 submission will include reference to our activities in this area as part of our forward-looking activity plan from 2023 onwards. We continue to collaborate through WReN and regional groups to establish the overall position across regions for net zero ambition and competing proposals for water, particularly associated with the Tees as a resource

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		support other sectors.		company/sectors).	

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Major Recommendation 5.	Issue 11 Timetable for delivery of environmental destination on the River Derwent	The timescale and decision making for environmental destination should be fully explained to demonstrate compliance with environmental legislation. While we do not have a final regulatory decision on exactly what will happen on the River Derwent and when, the expectation for environmental destination is a delivery timeline to 2035, unless otherwise justified. We remain concerned that a deferred option with an	Water companies are public bodies and therefore have a duty under the WFD Regulations (regulation 33) to have regard to the river basin management plans, which includes the statutory environmental objectives. The company risks not complying with statutory dates set out in legislation. If timing around long-term environment destination cannot be justified, then there is a potential prolonged risk to the environment.	The company should demonstrate that proposed sustainability reductions meet the requirements of the Water Environment Regulations 2017 and Conservation of Habitats and Species Regulations 2017. • This must include demonstrating that the plan prevents deterioration and meets protected area objectives and WFD objectives. If any changes are not planned as quickly as feasible, the company will need to justify	We are continuing to develop our Environmental Destination and are proactively working with the EA and NE to define an appropriate scope for our AMP8 Water Resources WINEP investigations in support of this (including asset and catchment specific investigations plus regional options development studies for Environmental Destination). In relation to the River Derwent, we share NE and EA's ambition to identify a sustainable long-term objective for the Lower Derwent protected areas but we recognise this is a complex water resources, environmental and planning issue which can only be solved collaboratively and with sufficient input from relevant stakeholders. Following a review of the comments on the draft plan, we propose to bring forward the Decision date to 2027 and the Trigger date to 2040. Our proposed timescale for Environmental Destination, including how we will meet the requirements of the WFD and Habitats regulations, will be explained in greater detail in section 3.8 (*Sustainable Abstraction and Environmental Destination*) and section. 10.1 Adaptive Planning of the rdWRMP24 submission.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		assumed delivery of 2050 is not adequate. With the company committing to develop options for WRMP29 the company are exposing the supply demand balance to risk. Options to offset this loss of licence (and potential for the Tees water to not be available – linked to Teesside cluster) should be considered more quickly to demonstrate how a changed delivery timeline for environmental	We acknowledge that the delays to decisions on the Lower Derwent on the part of the joint regulators creates challenges for the water company in its adaptive planning.	why abstraction reductions cannot be delivered sooner - with the absence of an adequate options list being an inadequate justification. • The company should demonstrate that the planned investigation programme enables solutions to be delivered as quickly as feasible (i.e., investigations won't unnecessarily delay delivery). • Work with regulators to agree a set of scenarios for resolution of the Habitats Directive	

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		destination would affect the plan. (Linked to recommendations 2 and 4).		Failures on the Yorkshire Derwent. Use the adaptive approach to develop a plan that sets out these levels of uncertainty and adapts to meet the company's supply challenges. • Ensure that the revised plan takes account of potential accelerated scheme decisions and timelines.	

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Major Recommendation 5.	Issue 12 Methodology for arriving at final sustainability reduction figures	The data that is currently in the public domain as the target for achieving long term sustainable abstraction is the National Framework for Water Resources. We expect companies to explain to stakeholders and regulators any changes that have made to their environmental destination since the National Framework was published The EA's Long-Term Water Resources Environmental Destination, Guidance for	Where the company has not demonstrated the journey from the National Framework suggested sustainability reductions to the reductions it presents in its plan (including which sources have been screened out and why) this limits the transparency of the plan and risks third party challenge.	The company should: • Review the volumes of the licence reductions in line with National Framework and clearly set out the reasoning and the justification for any differences • Include the details of those sources that have been screened out as not requiring sustainability changes including licence, location, and reason for screening out.	The approach to our interpretation of the EA's national modelled scenarios is set out in Appendix 6 of WReN's draft regional plan; we will ensure this work is more explicitly stated in our rdWRMP. All management catchments with enhanced scenario environmental deficits in the national scenario >2Ml/d were prioritised for review (including with the Environment Agency); where this initial review identified potential long-term water resources implications these were included within the Environmental Destination scenarios of our adaptive plan (consistent with the Ofwat reference scenarios). For our rdWRMP24 submission we will additionally consider the Environmental Destination implications arising from our adaptive plan (i.e. potential environmental flow deficits arising from the supply-side options selection within the best value plan). Section 3.8 of the rdWRMP24 will be updated on this basis to ensure that the methodology for arriving at these figures is more easily accessible to the reader.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		Regional Groups and Water Companies. (Oct 2020) stated that: "Where you have constrained your ambition, you need to clearly explain what you have decided not to include in your proposals and why". It's particularly important to explain any rivers or sources that have been screened out of the environmental destination. Where the company feels this is explained in the regional plan this			

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		should be referenced. Though as a standalone document the WRMP should have some detail and explanation.			
Major Recommendation 5.	Issue 13 Detail of environmental information in the plan destination	The Water Resources Planning Guideline states that: For each sustainability reduction you should provide: a description of the change being made, including the licence and deployable	Without this level of detail, it is not possible to test how any proposed sustainability reductions will impact the environment and how far the company has gone to meet the requirements	Provide a detailed breakdown of the company's environmental destination and sustainability reduction scenarios at a licence level (including licence number and licence point), clearly detailing and	Additional detail will be included in Section 3.8 of the rdWRMP to ensure consistency with the stated WRPG requirements. Our proposed timescale for Environmental Destination, including how we will meet the requirements of the WFD and Habitats regulations, will be explained in greater detail in section 3.8 (*Sustainable Abstraction* and section. 10.1 Adaptive Planning of the rdWRMP24 submission.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		output changes • the timing of the reduction • the location • the reason for the reduction The company has provided DO reduction by WRZ in the planning tables however does not say what environmental outcomes they expect to achieve	of the national framework for water resources	justifying when these are expected in the plan and use sensitivity testing to consider earlier delivery to support this justification. The company should also say what outcome they expect the changes will achieve for the environment The predicted benefits from the environmental destination for protected areas should be clearly explained. Where appropriate this should include: Chalk streams, SSSIs covered by the Wildlife and Countryside Act	

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
				1981, Sites designated under the Conservation of Habitats and Species Regulations 2017.	
Major Recommendation 5.	Issue 14 Inclusion of catchment based options	The plan does not meet our expectations for inclusion of catchment and nature-based solutions. The Water Resources Planning Guideline states: "You will need to use an appropriate level of evidence to justify your decisions and your level of ambition. This	Delivering environmental destination through abstraction reductions alone is unlikely to be the best value solution. These schemes benefit environmental destination in different ways for example: • To make the environment more resilient to low	In addition to sustainability reductions, we expect to see complimentary catchment and nature-based solutions included in the plan to deliver environmental resilience. Where there is believed to be insufficient evidence of the benefits of certain types of nature-based solutions, we expect to see	Our PR24 programme will include significant consideration of nature-based solutions and catchment programmes around many aspects of the water environment including upland restoration for reservoir water quality, engagement with the agricultural sector to improve river and groundwater quality, and catchment / NBS programmes in wastewater where appropriate. However, it is not possible to quantify the benefits of these schemes in a way that meets the requirements of the WRMP process, and in particular in terms of increased water availability and DO We believe that the appropriate place for NBS and catchment solutions is within the broader PR24 and WINEP programmes where the cost benefit case will be made in accordance with the PR24 guidance. Taking the above into account we will however include reference in the main technical plan narrative to these options in our rdWRMP with a

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		should include the ambitions of the 25 Year Environment Plan…you should embrace the catchment approach, working with natural processes to develop new ways of managing water, supporting nature-recovery, and contributing to natural capital where possible. "	flows • To benefit supply (e.g. through improved aquifer recharge) • To mitigate the impact of abstraction on the environment whilst waiting for a full solution to come online.	pilot schemes implemented to test and understand the potential benefits.	specific focus on how these types of solutions benefit holistic whole catchment resilience as part of a wider best value plan for water resources as we do recognise that together with the potential benefits associate with abstraction reduction the plan will improve catchment resilience. This update will occur in the options and best value plan sections of the rdWRMP24.
Major Recommendation 6.	Issue 15 Deliverability	Although the draft plan sets out to meet the stretching national policy targets for PCC and leakage, there is inadequate information to	Security of supply depends on successful demand management and will be jeopardised if these forecasts are not met.	Provide programme of measures and actions to be taken, including: • timetable • monitoring of progress • triggers for further actions	Our revised draft WRMP will include further detail of our demand management activities that incorporates a programme of demand management measures and actions being undertaken to support confidence in the deliverability of the plan. Our leakage investment plan has been optimised within the RPS Strategic Optimisation of Leakage Options for Water resources (SoLow) tool. This will include a year-by-year list of interventions,

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		provide assurance of delivery (see also recommendation 8). Components of a possible leakage and demand strategy are listed but the timing of implementation and the expected contribution from the measures is not clearly set out.		or changes of pathway when programme is off-track. Explain what the company is doing differently to ensure no further undershooting of forecasts as seen in previous AMP cycles. (See also improvement 2).	the cost of the intervention and benefit each intervention will deliver. We have considered over 16 intervention types, all of which have previously been trialled or are business-as-usual in terms of delivery. As such deliverability of each intervention type within the leakage plan is high, with controls around programme delivery to be established, following existing capital delivery processes. The updated demand management strategy part of the best value plan will be revised to include for the delivery programme for demand management options in the rdWRMP24. We will also monitor progress and propose triggers and actions to manage changes as part of our monitoring section in our rdWRMP24 and adaptive plan.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Major Recommendation 6.	Issue 16 Adaptive plan monitoring	Table 10.3 Adaptive Plan Monitoring sets out the decision points for the adaptive pathways. Confusingly, it then classes the switch to the new pathway as a "trigger". Section 10 does not clearly explain why there is a time-lag between the decision to switch pathway and the switch taking effect (planning delivery of the new measures is part of the pathway). While some pathway decisions are clear-cut (a	Without assurance that timely action will be taken if forecasts are not being met, the plan cannot assure security of supply.	Provide the criteria upon which adaptive pathway decisions will be made. These must be clear and measurable so that annual reporting can demonstrate progress. • Review the use of the column heading "trigger" in Table 10.3, as the dates below are for changes taking effect. • Provide a more robust explanation of why the decision and action points differ and explain why this delay does not jeopardise delivery of the adaptive plan.	As part of our work to revise the draft plan , we will review and update Table 10.3: WRMP24 adaptive plan monitoring and the measurability of the risks. This will ensure that the monitoring plan and the links to the triggers are made clearer and the dates for decisions are supported by an explanation for how we are managing the key risks identified to ensure that the plan is addressing all the potential risks of delay. The adaptive pathway diagram presented in Figure 10.1 of the draft WRMP24 technical document is aligned with the approach presented in Ofwat's PR24 and beyond: Final guidance on long-term delivery strategies Figure 1.3. We define decision points and triggers using the Ofwat definitions and intend to retain this approach in our revised draft to ensure alignment with other long term delivery strategies and the Ofwat methodology.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		transfer ceases, a licence changes), neither Section 10 nor Table 10.3 set out the criteria that would trigger key changes of pathway due to demand measures, e.g. the margin of undershoot on a leakage or PCC forecast.			

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Major Recommendation 6.	Issue 17 Non-household demands	The WRMP, while aligned to Water Resources North (WReN) plan, does not adequately explain the risks of non-household demands. There seems to be little reference to work by energy sector (Joint Environment Programme) nor recognition that legal requirements such as net zero by 2030 could place significant demands on water supplies. This might be direct abstraction (new or existing licensed	Failure to consider higher demands from industry/Humber cluster could mean insufficient availability of resource which limits growth and hinders achieving legally binding net-zero targets.	Continuing to work with Northumbrian Water and WReN, the company should: • Assess the implications of higher localised growth around the Humber cluster (and with NWL/WReN the Teesside). • Develop an adaptive pathway to ensure options required to support growth are ready to be implemented in timely fashion i.e. acknowledging the conflict between a 'next AMP' options development piece of work and the 2030 net zero	We continue to collaborate through WReN and with Northumbrian Water and regional groups to establish the overall inter-region position for net zero ambition and the impact this may have through competing proposals for water, particularly associated with the Tees as a resource. As stated previously, we recognise that the Humber industrial cluster is a significant player in the UK's net zero ambitions and are committed to supporting activity that helps to deliver on those ambitions. Their likely demands for water volume (both peak and average, quality requirements, location and timing of need) remain uncertain at this point in time. As part of our discussions with potential industrial users, we are also exploring other options for their water supply, such as non-potable sources for uses where appropriate. Our rdWRMP24 submission will include specific reference to our activities in this area, including developing further alternative options as part of our forward-looking plan from 2023 onwards.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		volumes) but could equally be requested from the company. Without any obvious assessment of this growth, timely options to support net-zero might not be in place. As Teesside demand will directly impact on the ability of Northumbrian Water to supply a transfer to Yorkshire Water, the company should continue to assess the risk this presents to the transfer and therefore long term options as part		timeline. • Ensure that growth elsewhere in the WReN region is also considered. This is to ensure that should availability of water to support the preferred Tees transfer is not available then deliverable and timely alternatives are ready (linked to recommendation 2).	

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		of its WReN work.			

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Major Recommendation 7.	Issue 18 Use of Natural Capital and Biodiversity Net Gain	The company's submission and the reviewed documents showed some evidence of following a Natural Capital approach through: i. providing a qualitative assessment of each option against the NC SEA Objective 1.2 (in the Options Appraisal Appendix) ii. providing an aggregate NC metric iii. normalising this metric for integration within the 6 Capital approach. The company does not	The dWRMP documentation reviewed falls short of clearly demonstrating a Natural Capital approach has been taken. The following information is missing: i) a detailed NCA methodology ii) ecosystem by ecosystem reporting of results (at a qualitative, quantitative and monetary level) iii) an attempt to achieve quantifiable benefit to the environment and society through a NC approach. There are also	Provide a NC and BNG appendix that details the methodology undertaken with respect to the feasible and BVP options included in the dWRMP. • Report both the quantitative and monetary impact of each option at an ecosystem service level. Demonstrate how these options can provide a quantifiable benefit to the environment and society. • Where the results of these assessments are negative, i.e., a loss to the environment and society,	We are preparing a methodology document which covers how we have applied the Natural Capital approach in our economic evaluation of WRMP options and how this is aligned to and/or different to what is set out in the "Environment and Society in Decision Making" Water Resource supplementary guidance. This document will include appendices on: £ values of the 4 Ecosystem Services recommended to be included in the assessment (+ values = cost; - values = benefit) and the Biodiversity and Habitats assessment; a flow chart on the impact assessment to support the 6 Capitals (including Natural Capital) assessment; and the mapping of the Yorkshire Water Service Measure Impact Categories to Natural Capital Metrics. We have not taken a baseline assessment of Natural Capital Assets that are in scope of the WRMP. Instead, we annually report on the impact and value we create via the 6 Capitals, and this provides the baseline of our 6 Capitals assets and value: https://www.yorkshirewater.com/about-us/capitals/. Our Biodiversity and Habitats Assessment was completed using the Biodiversity Metric 3.0 calculator/spreadsheet, and this only applied to options that fall under the BNG requirements. We acknowledge that achieving BNG can be achieved within an individual option's footprint, cumulatively for all options but elsewhere, or a

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		clearly report a methodology for assessing the quantitative and / or monetary impact of its options at an ecosystem-by-ecosystem level. Neither do they show consideration of the baseline natural capital assets through its reporting. In calculating an aggregate natural capital NPV (a negative £ value) for each solution programme, it is inferred that option and ecosystem level assessment did occur, however this	no quantitative BNG results provided an aggregate or option level and no monetary results presented at an option or ecosystem service level. Yorkshire Water (YW) report an aggregated natural capital (NC) metric, which is normalised between 0 – 100 and as an input into its 6 Capitals approach to investment and decision making. Due to the lack of reporting, adherence to the WRPG SG	consider environmental mitigation to provide quantifiable benefit to the environment and society. • The NCAs should follow and refer to the WRPG A1.1 principles and NCA minimum practice. • Consider 10% BNG for all options and outline offsetting plans as part of ENG.	mix. We have not made an assumption on how each WRMP option that has a negative biodiversity impact will achieve the 10% within its own footprint. What we considered is the requirement to achieve this and the equivalent potential cost via the Biodiversity tariff. This is to ensure that the cost to achieve this net gain is visible in decision making.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		cannot be confirmed through this review due to a lack of evidence supplied. Visibility is not provided on ecosystem service selection, scoping processes, or quantification and monetisation methodologies. The aggregate ecosystem service impact provided for each solution is negative, and therefore it is unclear how these solution offer or provide real quantifiable benefit for the	cannot be confirmed for the ecosystem service selection, methodology, or quantifiable benefit to the environment. A qualitative integration of NC into the SEA occurs through Objective 1.2 of the SEA Objectives, as an input to the SEA scoring system. There is no mention of environmental net gain (ENG) or any proposed offsetting plans.		

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		environment and society.			

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Major Recommendation 8.	Issue 19 Limited plan developme nt	Throughout the draft plan there are statements promising further development prior to publication of the final plan. This reflects the limited staff resource made available to develop the plan. Examples include options, outage (including reviewing planned outage for East SWZ), non-household demand forecasts (with retailers), RBMP, climate change impact	While it is accepted that a draft plan will be subject to change prior to final publication, the scale of further development highlighted would indicate that the draft plan currently out for public consultation may be subject to substantial changes in content and direction.	Update the draft plan with a timetable showing delivery of the outstanding work as part of the company's statement of response. • The work should be delivered as part of a revised draft plan. • Explain how these development commitments will be met. • Explain how changes to the plan will be presented for appropriate public scrutiny. • Where not able to complete for final plan, provide an expected timeline for completion and	We note the comment in respect of providing a timetable as part of the company's statement of response with an explanation of how it will be included within the rdWRMP24. We will continue to share our programme of activities along with any additional supporting technical appreciation that we can offer as part of the ongoing WRMP consultation and liaison with the EA and statutory regulators separately to this statement of response. We will also share the activities that feed into the rdWRMP24, providing reference to where in the rdWRMP24 updates will be made and setting out the key activities between 2023 – 2025 ahead as we move towards the next round of planning.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		on GW yields, process losses review, inclusion of lessons from 2022, finalised leakage target (linked to business plan).		risk this represents to the plan forecasts.	
Major Recommendation 9.	Issue 20 Direction 3k: Programme to manage and reduce leakage	Inadequate information to meet Direction: The draft plan provides only a list of options, L1-L6, and the sub-component measures. This is aggregated up to different levels of savings dependent on whether L1-L6. Feasible Options technical document section 3.1	There is no detail to provide assurance that these options could deliver the water savings attributed.	• Provide programme of measures and actions to be taken, including timetable, monitoring of progress, triggers for further actions to be taken if programme goes off- track.	As agreed with the EA, information about our leakage programme is to be provided to the EA as a technical supporting document to our Statement of Response. It should be noted that the finalised programme is still subject to confirmation as it will necessarily need to be a part of the optimisation process for our rdWRMP24. Yorkshire Water is determining the demand side target performance levels utilising individual intervention unit cost and benefits. The optimisation is taking place within the Yorkshire Water WRMP optimiser. This optimisation will set the long-term target for leakage reduction. Yorkshire Water has used the RPS Strategic Optimisation of Leakage Options for Water resources (SoLow) tool. This tool is recognised as best practice across the industry and is used to optimise the interventions within the plan to deliver the leakage targets and the trajectory of leakage improvement within the plan. Yorkshire Water will include the expected 25-year leakage

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		gives more information on each of the techniques available but does not explain how and when each of these measures will contribute to the proposed reductions. There is no clear programme of what measures will be adopted when to contribute to the assumed 95Ml/d savings.			trajectory within the draft ARMP. Additionally, we will submit the individual cost and MLD benefit of each intervention type within the plan.
Moderate Improvement 1	Issue 21 Severn Trent transfer operation	Important information on the operation of the Severn Trent transfer - relevant for as long as the transfer remains	Without this operational detail, the draft plan does not make clear that the full rate of transfer may not be available to	• Provide explanation (as per WRMP19) of operation of transfer with regard to reservoir control curves, i.e. make clear that full	We will add this detail to our revised draft WRMP24.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		operational - has not been included.	the company in prolonged dry conditions.	yield may not be available in a dry year	
Moderate Improvement 1	Issue 22 Stochastic modelling	The water company expresses concerns about the impact of the use of a 48-year sequence in stochastic modelling of inflows and reservoir stocks, and intends to explore the modelling and its impacts further.	The company is concerned that the modelled data has a higher portion of dry weather events with lower stocks than the company experienced in the 48-year period. If validated, the modelling would highlight greater supply risks than had previously been understood and drive greater investment in supply-side measures. If inaccurate, the modelling could trigger	In its exploration of the modelling outputs, the company must show that it understands the range of risk the modelling is drawing to its attention and how this will inform the plan and the mitigation of these risks.	We will continue to explore the results of our simulation modelling using our new PyWR model. This model enables us to better model stochastic time series than our WRAPsim model.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
			inappropriate development and expenditure.		
Moderate Improvement 1	Issue 23 Source Protection Zones	The company has not provided information on the status of Source Protection Zones for its abstractions.	Without this information, the security or vulnerability of supplies to pollution is unclear.	• Confirm that all abstractions are covered by the relevant source protection zones.	We will add this detail to our revised draft WRMP24.
Moderate Improvement 1	Issue 24 Level 4 Restrictions timetable	The draft plan proposes to retain a 1 in 200-year Level of Service for Level 4 restrictions until 2039 (being the deadline to achieve a 1 in 500-year standard of service).	The plan does not demonstrate how Levels of Service will change as additional measures take effect in the run-up to the 2039 deadline and therefore provides no assurance that the pathway to	• Provide evidence of testing of alternative and/or phased pathways to the 1:500 Level of Service. • Provide assurance that 1:500 will be achieved by 2039.	The draft plan baseline scenario for the Grid SWZ identified an early deficit in the supply-demand deficit. To reduce the risk, we planned to a 1:200 level of service until 2039 but the zone was still in deficit. The implementation of supply options in the AMP7 period and the demand reduction activity to meet policy requirements meant there was limited scope to delay the 1:500 beyond 2039. There is potential we could achieve the 1:500 earlier and we will review in the rdWRMP24 and update the best value planning section. We will also review the potential to delay the 1:500 resilience to later in the planning period. The river Derwent abstraction reduction date has been brought froward from 2050 to 2040. This alters the supply demand balance for the Grid

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
			1:500 will be successful.		SWZ, and we will stress test the 1:500 resilience date against the revised supply-demand balance. The East SWZ baseline is already resilient to a 1:500 drought without the need for investment.
Moderate Improvement 1	Issue 25 Drought resilience	Guidance requires testing to droughts worse than 1:500. It is unclear how the company has met this requirement.	Without it, security of supply in extreme events has not been tested.	• Stress-test the draft plan to drought events more severe than 1:500 to demonstrate the impact on security of supply, in line with Guidance.	In calculating 1 in 500, we have tested to worse events, and the DO at 1 in 500 represents the highest demand where we fail at a rate of 1 year in 500. So, to stress test at worse events, we would fail, as if we wouldn't fail, then the 1 in 500 DO would be higher The guidance for 1 in 500 states "You should consider a wide range of drought events through your chosen approach, including the impacts of events that are more severe than 1 in 500 years.". We have done this to calculate the 1 in 500 DO. By definition, the DO is the demand at point of failure…
Moderate Improvement 1	Issue 26 Inclusion of drought measures within deployable output	The company has quantified the benefits of including levels of service of drought measure Levels 1-3 in its plan but has not outlined the approach it has adopted to show it can meet the frequency that	If the frequency of Levels 1-3 drought measures has not been tested in a company's assessment it is possible that the customer may experience drought measures	The company should report on the method it has used to confirm that it can comply with the more frequent drought measures (L1-L3). The company should justify any significant reduction in	We will include this information in our revised draft WRMP24. This detail was included in the technical report on deployable output and climate change and will be updated and included in the revised draft reports using the new modelled results from our PyWR modelling.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		the company has stated in its plan.	more frequently than those stated in levels of service.	deployable output as a consequence of including the frequency as a constraint or outline how it intends to minimise the reduction.	
Moderate Improvement 1	Issue 27 Representation of drought measures, planning table 5	Drought measures are not presented in planning table 5 as options providing DYAA benefit.	All preferred options that provide supply or demand benefit in the DYAA scenario in table 3b must be listed and itemised in table 5. This includes all drought measures set out in table 6 that are listed as 'Y' to indicate that the benefit of those are included within the DYAA final planning	Add entries for all relevant drought measures to table 5 and ensure the benefits match those presented in table 3b.	We will include all relevant drought measures in our revised draft WRP table 5 and align with Table 3.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
			supply-demand balance. This provides transparency of the options that provide benefit and assurance that the final planning supply-demand balance is accurate.		
Moderate Improvement 1	Issue 28 Level 2 & Level 3 drought measures	Currently all drought measures to be taken between Level 1 (TUB) and Level 4 (Emergency drought restrictions) are all listed as Level 2 measures.	This gives no sense of how additional resource becomes available as a drought deepens.	• Separate out Level 2 (first year of drought) and Level 3 (longer- term) measures in YWSGRD Table 6. • In the final plan, make clear where discussing drought permits, drought orders and emergency drought orders, as these terms are not	Currently it is only level 2 measures that are included. We will add level 3 measures to the tables, and we will clarify our language around the measures.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
				interchangeable.	
Moderate Improvement 1	Issue 29 Planning tables table 6	Rows 11.1FPD-18FDP have been completed only for a 1:500 event.	This does not reflect the variation expected in rows 11.1FPD-18FDP in response to variations in the values in rows 1FDP-10FDP, which vary between droughts.	• Complete rows 11.1FPD-18FDP for the range of droughts reflected in rows 1FDP-10FDP.	We will complete these tables in our revised draft WRMP
Moderate Improvement 2	Issue 30 USPL	In the Grid Zone FP tables: - measured & unmeasured non-household USPL declines slightly and very slowly - measured & unmeasured household USPL remains roughly static, at 64Ml/d +/-	The static level of household USPL over the duration of the plan indicates that this contribution to leakage is not being addressed.	• As a significant contributor to total leakage, explain how household USPL is to be addressed, how it is assumed to change with increased property numbers and how the company will	The USPL data provided in the WRP tables is based on the base year % proportions for each demand category and we used the same values for the final plan scenario. USPL will reduce as part of our leakage strategy and delivery of smart networks. In our draft WRMP24 leakage reduction was included as a distribution input reduction profile and we did not apply the reduction to the USPL. For the revised plan we shall incorporate the USPL reduction benefits to the final plan tables.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		0.5Ml/d, with the unmeasured portion decreasing and the measured portion increasing as more properties become metered - void property USPL increases from 4.82Ml/d in 2019/20 to 5.5Ml/d in 2049/50, a 15.6% increase Section 4.4.4 states that USPL is estimated at 29.9% of leakage.		look to reduce it over the planning period to help contribute to overall leakage reduction plans.	

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Moderate Improvement 2	Issue 31 Non-household demand management	The company forecast a 1.2% reduction in non-household consumption by 2037/38 from 2019/20 levels [water demand target under Environment Act 2021]. (Noting also the comments in recommendation 6, issue 17). The company has not provided, but notes (section 2.8 p65) that it is developing, a strategy for achieving the Defra requirement to reduce non-household water use by 9% by 2037, as	As per government expectations, all companies should assist non-household users to sustainably reduce their water use. Reducing non-household demand plays an important part in reducing overall water demand and thereby helping to maintain customer supplies and protect the environment. At present, we have no assurance that the draft plan will achieve	• Provide a more rigorous and evidence-based assessment of future non-household demand, and of the actions to be taken to manage it. • The company should consider additional options, in collaboration with retailers, to reduce non-household consumption including the assessment of smart metering for all non-households (if it has not already done so). Where further reduction in non-household consumption is not considered	We will include this information in our revised draft WRMP24

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		sought in the Environmental Improvement Plan in contribution to the Environment Act water demand target. Water companies should work with retailers to improve water efficiency and incentives for the non-household sector. We expect this to be a priority for the next 5-10 years.	Defra ambitions on non-household water use reduction	possible this should be clearly justified.	
Moderate Improvement 2	Issue 32 Self-suppliers switching to mains water	The plan does not give adequate consideration to - the impact of climate change on	By assuming that past experience is a reasonable guide to behaviour in a changing climate, the	• Provide a more rigorous and evidence-based assessment of future non-household demands on mains supply	We are aware that a number of companies during recent dry periods did receive requests from self-suppliers for mains supplies. In the draft plan we stated there "We have not added any climate change uplift to the non-household consumption. This is because there is no evidence of an impact on industrial demand. Equally, there is little potable water supplied for

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		service sectors (tourism, etc.); - the impact of climate change on agricultural and other self-suppliers that have not turned to the water company before but may do so under future environmental stress.	company risks failing to provide security of supply for future demands.		irrigation purposes in Yorkshire, and therefore, we are assuming no impact on agricultural demand in our region." We did however, based on 2018 dry year demand include a non-household dry year % uplift in the DYAA and critical period scenarios (section 4.3.5). This accounts for the risk that farmers with dual supplies (e.g. own boreholes and mains supply) will use more mains supply during dry years compared to normal. We feel this captures the risk in the YW supply area, however, we will review the assumptions for our revised draft WRMP24.
Moderate Improvement 2	Issue 33 Consultation with retailers	Consultation with retailers has yet to take place (p215 paragraphs 2&3).	The views of retailers on the draft plan and its implications have yet to be considered.	• Report on this work as part of the final plan. • Include assessment of impact on non-household & retailers of NEUBs	Retailer communication for WRMP24 is described in section 1.5.1 of the draft plan. The reference on page 215 is out of date and will be deleted from this section.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Moderate Improvement 2	Issue 34 Population & properties	The trend for the new build population properties exhibits an unusual dip between the 2046 to 2052 [appears to be a standard quirk across Edge Analytics analysis].	The reasons for this are not given and its potential impacts not considered.	• Provide the explanation for the dip in property forecasts for the years 2046-52.	We understand that this dip is caused by a change in the data source used by Edge Analytics and the points in the future when current Local Plans expire and thus the LP data is no longer available (switch to ONS data source). Given that this issue does not occur until the late 2040s, it is not a material consideration for the early part of our planning approach. There will be many other influences on actual housing numbers delivered between now and the late 2040s, and any changes will be picked up through future iterations of the plan. The dip in the late 2040s is not a material issue for WRMP24, however we shall add a reference to the technical document section 4.5.1 to provide the explanation.
Moderate Improvement 3.	Issue 35 Decision-making	There is no clear evidence of the assumptions used to inform the decision-making for Yorkshire Water. The modelling approaches used have been clearly set out but it appears that they have not	The lack of clarity around assumptions and assurance creates uncertainties in the development of the plan that in turn could affect the overall outcome of the preferred plan and adaptive pathways.	Provide clear evidence of: • Assumptions made in decision making process • Assurance of modelling approach by an external assessor.	The decision-making process is described in section 9 of our plan. We also provided the regulators with a more detailed supporting technical report. It is not clear from this representation which assumptions the EA require clarification. We will meet with the EA and provide additional txt to section 9 where applicable.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		been assured by an external assessor to ensure that Yorkshire Water are following aims and objectives that have been set out in its plan and in regional plans.			
Moderate Improvement 4.	Issue 36 Impact of SEA on developme nt of dWRMP	The draft plan does not explain how its development has evolved in response to the outcomes of the SEA.	There is no evidence of the SEA influencing the company's decision-making.	• Explain how the outcomes of the SEA have influenced the company's decision-making and the development of its dWRMP.	Section 8.5 of the draft WRMP24 technical document outlines the process for integrating the SEA, HRA and WFD into the options appraisal. Section 9.4 of the draft WRMP24 technical document discusses the SEA impacts of the best value plan options portfolio. Sections 9.5.1 and 9.5.2 discusses the SEA in relation to the candidate solution programmes. We will expand on these sections in the rdWRMP24. We will also include additional narrative in the best value plan section of the rdWRMP to explain how the SEA informed the process between the least cost plan and formulation of the best value plan.
Moderate Improvement 4.	Issue 37 Assessmen t of alternative s options	Alternative options appear to have been assessed but as this is not explicitly stated, there is	It is not clear how the preferred plan or the preferred options have been decided.	• Explain how the preferred plan and the preferred options have been decided.	Detail on how the preferred plan was selected is available in Section 7.1 of the Environmental Report. Section 7.2 of the Environmental Report will be expanded to provide further detail on the assessment of Alternative Plans.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		an element of uncertainty on this. Similarly, plan level alternatives have been assessed but this doesn't cover an assessment of the best for society and environment plan approach.			(As above) We will also include additional narrative in the best value plan section of the rdWRMP to explain how the SEA informed the process between the least cost plan and formulation of the best value plan
Moderate Improvement 4.	Issue 38 Assessment methodology	The assessment methodology is well devised but with evident limitations, such as including definitions for some of the characteristics of effects.	This is particularly confusing for the scale of effect as small medium large could refer to the population size or the geographical scale. How these have been differentiated in the assessment is unclear. This is pertinent as large	• Update the assessment to demonstrate how these have been differentiated.	The assessment methodology was presented to consultees at the SEA scoping stage and a Scoping Report was issued for consultation in 2021, where statutory consultees were given opportunity to provide input into the overall approach to the SEA of the WRMP. It would be at this stage in the SEA process where any issues would be flagged regarding the methodology, including the thresholds used throughout the assessment. We would not look to change the approach at this stage in the WRMP process however we will add further explanation to Section 5.2.1.1 to improve clarity on the scales of effect used in the assessment. We note the concerns regarding transboundary effects however these would also be covered by the updated cumulative assessment with other plans and programmes

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
			geographical scale could indicate transboundary effects.		from neighbouring water companies and regional groups.
Moderate Improvement 4.	Issue 39 Transboundary effects	Transboundary effects have not been identified. This is particularly relevant in the context of the option from Northumbrian Water. The SEA is expected to cover this option and will require alignment in assessment and components.	This is a clear omission from the assessment and could mean that there are significant effects that haven't been identified.	• Identify and explain cross- boundary issues and the potential impacts on other water companies.	The spatial extent of the SEA study area included a 10km wide "corridor" of the Tyne and Tees to cover the potential development of pipeline schemes to transfer water from NWL to YW region (see Section 4.2). Further cross-boundary issues are covered in the programme-level cumulative effects assessment (Section 7.4). This section will be revised following publication of the draft WRMPs and Regional Plans from neighbouring companies/regions and any potential cross-boundary issues would be highlighted here.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		Work with Northumbrian Water to ensure			
Moderate Improvement 4.	Issue 40 Embedded mitigation measures	All reported effects are residual effects which have applied embedded mitigation. While identified mitigation measures are good, there is a lack of clarity on embedded mitigation measures that have been applied to the assessment.	This means that the SEA isn't fully transparent and some significant effects may not have been fully identified.	• Include further clarity within the assumptions and limitations of the methodology section.	Section 8.2 of the Environment Report sets out the assumptions made in the option assessments, which include 1) where suitable mitigation is known this has been taken into account in the assessment and the resultant residual impact is reported and 2) implementation of reasonable standard best practice mitigation (in line with UKWIR SEA Guidance). Significant effects have therefore been identified where these have not been satisfied and Section 8.3 reports examples of possible mitigation that could be implemented to address these. This approach should be considered a starting point with mitigation and more detailed mitigation would be implemented as options are developed and through monitoring. We recognise that more clarity is required in the methodology section therefore Section 5.3 will be updated to include text around the assumptions and limitations concerning mitigation measures.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Moderate Improvement 4.	Issue 41 Monitoring measures	Monitoring measures are weak as they currently don't provide any proposals for monitoring rather just some potential indicators.	There is no clear plan for monitoring measures. The proposals do not address the need for triggers and thresholds for remedial action	• Set out a clear plan for monitoring measures (who, how, what, when). • Set out the triggers and thresholds for remedial action	Bespoke monitoring arrangements are not usually prompted by SEA and instead the Environmental Report focusses on how the identified significant effects can be monitored. Indicators are a useful way to measure the likely significant effects of the plan and identify whether mitigation has been effective. The SEA Post-Adoption Statement will be produced and, when the final WRMP has been given permission to be published, this will be uploaded on to the Yorkshire Water website. This will set out a more detailed monitoring plan for the adopted WRMP.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
Moderate Improvement 5.	Issue 42 Uncertainty in representation and inclusion of carbon in WRMP	Yorkshire Water has not followed the guidance in developing its WRMP and it is not clear whether they've performed whole life carbon assessment. Therefore, this plan needs major adaptations. Yorkshire Water has committed to achieve net zero carbon emissions by 2030 through buying green energy and using renewables. Carbon impact and costs have been considered in the decision-	No uncertainty consideration in carbon assessments which has the potential to affect plan outcomes in a limited way It is not clear if or how the company conducted the whole life carbon assessment and whether any framework was being followed. There is no mention of PAS 2080 or any other methodologies. This reduces the confidence in carbon costing used by the company.	• It is recommended to report that there is a level of uncertainty associated with carbon data and its plan on how to minimise it. • Consider carbon offsetting for mitigating any residual emissions • Explain more clearly carbon costings methods • Detail how guidance/policies applied to develop forecasts.	The methodology document on the Natural Capital Approach and Economic Assessment will contain a section explaining the whole life carbon methodology and how this then feeds into the economic evaluation of WRMP options. Parametric uncertainty is a key part of all carbon assessment – and is taken into account as part of our analysis and forecast of emissions. This is inherent to the use of standard emission factors, and inventories of carbon emissions for products, and we work to refine our analysis over time and use the most up to date factors and assessment methodologies in line with the principles set out in the Greenhouse Gas Protocol. Yorkshire water uses PAS 2080:2016 (up to this year and will transition to the recently launched revised PAS 2080:2023 version) to evaluate the whole life carbon emissions associated with our capital programme including works related to our WRMP. We also use ISO 14064-1 and have both our embedded and operational emissions independently audited on an annual basis. Yorkshire Water's carbon management processes and approach complies with the requirements of PAS2080. This is a global standard for managing these emissions and ensures we are delivering high quality carbon reduction activities across our company.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		making process. Also, there is no double counting of carbon between carbon costings and natural capital. However, it is not clear whether or how they've performed whole life carbon assessment and if any policy or framework was being followed. The uncertainties associated with carbon data have not been considered. Carbon offsetting have not been considered for			Carbon is a key component of our decision-making framework and incorporated into our six capitals approach. Our six capitals approach is designed to help us become more sustainable and resilient by considering value in the broadest sense. Our decisions and investments impact many different types of capital (e.g. natural, social, etc). We use this approach to help inform the decisions we make regarding investments in our assets. To do this carbon volumes, as well as the impacts of service measures on other types of capital, are assigned a monetised value. In the case of carbon this is based upon UK Government carbon prices. We currently use a value of £354.67/tCO2e, based on BEIS' September 2021 update on carbon prices. As we can only use a single cost of carbon in this calculation this value is a 41 year (2022 to 2062) average central carbon price adjusted to 2022 prices. This is an uplift from the previous value used of £18.88/tCO2e and therefore has a greater influence on cost benefit analysis. The move to using the current value includes taking into account higher future emissions mitigation costs.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		reducing the residual emissions. Specific issues identified include: - Absence of consideration of the uncertainty of carbon assessments - No indication of carbon assessment consideration. - There is no indication of any policies or guidance being used to perform whole life carbon assessment (e.g. PAS 2080) - Uncertainty in how carbon costings derived			Alongside financial cost and monetised service impact, monetised carbon values are all components of a total net present value (NPV) calculation that is produced to inform evaluation and choices for different solutions to meet needs that have been identified. These costs are used to evaluate potential solutions, help us to better understand the economic, environmental, and social impacts and benefits of different investment options, and to make best value decisions that align with our carbon goals. Our carbon reduction plans out to 2030 – include a component to offset our residual scope 1 and 2 emissions using a combination of carbon insets generated from our own woodland planting and peatland restoration projects and third party purchased gold standard carbon offset. We anticipate this to be in the order of 15-20 of gross (location-based emissions aligned to our baseline year (2019/20)). By 2050 we target as part of our long-term delivery strategy to reduce of all scopes of emissions including our scope 3 emissions by 90% and offset the residual 10% of emissions. The WRMP is a key plan along with other plans such as our DWMP that is taken into account in our long-term delivery strategy and carbon transition planning. Our WRMP sets out the expectations for demand, population served,

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
					quality of water and key changes expected aligned to various growth and climate change scenarios etc. Our carbon plans use these forecasts to evaluate for modelling purposes the likely impact in terms of operational emissions associated with changes in required energy for pumping and treatment, chemicals for treatment, vehicles to service and maintain operations etc. These are mapped against decarbonisation plans and used to inform our net zero investment plans over the period out to 2050. Reduction in energy use, use of green energy and self-generation, and reduction in chemicals are key elements of our water treatment supported by transition of our fleet to zero emission vehicles. The WRMP provides a clear view of growth projections and required changes in assets that will impact both our operational emissions and embedded emissions from our capital programme, and optioneering for low carbon solutions including nature-based solutions. These considerations are a key element of our 10-year corporate strategy that includes net zero as a core objective and will be incorporated into our revised WRMP. Yorkshire Water's approach to achieving embedded carbon reduction is fundamentally aligned to the application of the TOTEX hierarchy philosophy developed to identify financial efficiency.

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
					The approach is to remove carbon at source, not at the point of delivery. The intention has been to prioritise the development of alternative low embedded carbon solutions, including nature-based solutions, to the areas of the programme where there is the greatest opportunity. If during the definition phase it is clear that the notional / traditional solution is the only viable option, carbon reductions will be sought through the supply chain and smart delivery only. We have embedded carbon reductions into our decision making at key points along our project life-cycle through our Engineering Design Approach and TOTEX Hierarchy. The TOTEX Hierarchy ensures the during solution optioneering and development we look to eliminate the need to build, reduce what we build and if we must build, we do it smarter and more efficiently with the least carbon impact as possible.
Moderate Improvement 6.	Issue 43: Acceleration of schemes	The company has submitted one or more schemes to be considered for acceleration in the remainder of AMP7. An	If any of the company's schemes are being accelerated, the current representation of these	• Ensure the company's revised draft plan takes account of any decisions on its scheme acceleration	The schemes put forward for acceleration were not accepted

Area of response	Area of issue	Issue and evidence	Implications	Information or changes required	Yorkshire Water response
		announcement around the outcome of this acceleration process is expected in March.	schemes in the plan will not be fully accurate.	proposals where applicable.	

6.2. Non Environment Agency Comments and Responses

Table 5. (Non- Environment Agency) Stakeholder Comment

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
Arqiva	We welcome Yorkshire Water's focus on reducing overall water demand in its water resources management plan. Action to reduce demand will improve the resiliency of public water supplies, reduce the amount of energy required to treat drinking water, and help customers realise savings on their household bills.	Noted
Arqiva	To achieve the necessary reductions in water consumption and ensure consumers can fully realise the benefits, water companies and households must be empowered with the real-time data smart meters provide.	Noted
Arqiva	We welcome Yorkshire Water's focus on delivering the benefits of smart metering to consumers. In its draft WRMP, Yorkshire Water outlines an ambition to deliver smart metering to all metered properties by 2040, and outlines that it is assessing the potential of AMI smart metering. We believe it is highly important that Yorkshire Water pursue an ambitious AMI rollout programme to properties beginning in the next regulated asset management plan period (AMP8), to ensure the benefits of the technology are realised without delay. AMI provides hourly data on water consumption 24 hours a day, seven days a week, and as a result provides far more insight than AMR, which provides meter readings through 'drive-by' collection. There is a significant opportunity cost to deploying less advanced smart metering options.	We note the support for smart metering.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	As highlighted by Frontier Economics and Artesia, a full rollout of AMI across England and Wales would deliver between £1.3 billion and £1.85 billion in additional net benefits compared to an AMR rollout.	
Arqiva	Delivering an ambitious AMI smart water metering rollout from AMP8 would enable Yorkshire Water to accelerate progress towards reducing water demand, in addition to achieving other benefits for customers including greater engagement and control over household usage and bills. We understand and appreciate that Yorkshire Water are not 'water stressed' and therefore unable to adopt a 'mandated' approach to smart meters.	Yorkshire Water has > 1 million AMR meters which will be asset life expired in AMP8. As such we will be including exchange of the end-of-life assets with AMI meters within our 7 core scenarios developed to establish the cost and service impact of adopting differing strategies and policies. Yorkshire Water has considered Change of Occupancy and Enhanced DMO uptake within these considerations to increase customer meter penetration and service improvements for our customers.
Arqiva	The importance of advanced smart metering in water resource management We believe that Yorkshire Water must build-in AMI as a central component to its water resource management plan and pursue an ambitious rollout from AMP8. AMI provides water companies with hourly data on the amount of water delivered to a property, 24 hours a day, 7 days a week, with data transmitted securely from water meters to water company data centres. This level of insight enables water companies to deliver a range of benefits. Companies that do not deliver AMI risk delays to delivering these benefits, or not realising them at all.	Yorkshire Water has considered 8 scenarios regarding our metering strategy. The optimisation process has considered customer support and a multi performance commitment contribution to service. The WRMP optimisation will deliver our final strategy for metering. The preferred strategy will be included in our revised draft WRMP. Yorkshire Water has already moved to Smart metering as our standard technology solution, with New Developments and Domestic Metered Optants being installed with a Smart meter. However, the speed of transition to "full" Smart metering will be confirmed in the revised draft plan.
Arqiva	AMI enables companies to detect more leaks across their network and respond quickly More rapid leak detection is essential to bring down the amount of potable water wasted each day. The hourly data provided by AMI enables faster	Yorkshire Water has already moved to Smart metering as our standard technology solution, with New Developments and Domestic Metered Optants being installed with a Smart meter. However, the speed of transition to "full" Smart metering will be confirmed in the revised draft plan.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	detection of leaks. In 2013-14, before adopting AMI, Anglian Water reported that it identified about 6,000-7,000 leaks per year. In 2021-22, driven by Arqiva's gold-standard AMI smart metering network, the company identified about 65,000 total leaks. By using AMI, companies can identify leaks across their networks quickly, including common leaks such as toilets, which have been found to impact a substantial number of homes and waste about 450 litres of water a day.5 A wider deployment of AMI would enable millions more litres to be saved and help secure the UK's future water supplies.	
Arqiva	AMI helps empower consumers to reduce per capita consumption and household bills Consumers lack the knowledge they need to reduce their water consumption. One study found that almost half (46%) of people believe they only use 20 litres of water a day, 6 while the average water consumption per person per day is 145 litres.7 Smart metering data encourages small behavioural changes that cut household water waste.	We note the support for smart metering.
Arqiva	AMI could prevent 1 billion litres of water a day from being wasted by the mid-2030s, lowering carbon emissions The leakage and water consumption reductions made possible by AMI smart meters provides the opportunity to improve the UK's water resiliency and support the water industry's transition to net zero.	We note the support for smart metering.
Arqiva	AMI delivers wider economic benefits through improving operational efficiency AMI delivers a range of benefits to water companies. These include	We note the support for smart metering.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	more efficient leakage control costs; operating cost savings from reduced consumption; capacity benefits of reduced consumption (deferred investment or opportunity to trade water); reduced meter reading costs; improved infrastructure management; and improved forecasting data. Unlocking these benefits of AMI helps water companies' lower their costs, enabling greater focus and spend on delivering better services to customers	
Arqiva	The importance of government and regulatory support to unlocking the benefits of smart metering As the regulator, Ofwat has a critical role to play in enabling the delivery of AMI through its settlements for the next regulated asset management plan period. It is important that Ofwat encourages water companies to put forward ambitious smart water metering proposals and enables investment in advanced metering technology. This should include the rollout of new AMI meters and replacement of old, less advanced meters	Noted
Arqiva	Arqiva is ready to partner with companies to deliver smart metering's benefits. We are the UK's only large-scale provider of gold-standard smart water meter infrastructure, having installed over 1.9 million advanced smart meters to date for customers including Thames Water and Anglian Water.	Noted
Business Stream	We are not in a position to respond to all of the questions posed in your survey, but we wanted to	We note the support for smart metering.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	raise two specific areas that will be of importance to us, and our customers, going forward: (i) The contribution from Non-Household Customers to demand reduction and water efficiency; and (ii) The importance of smart metering.	
Business Stream	Whilst we are raising these issues in the context of the regional plan for Yorkshire, we feel strongly that both of these issues need to be seen in a market-wide context to ensure that investment plans and solutions are consistent across the whole market. There is a danger that if wholesalers take different approaches to smart meter roll out or to water efficiency incentivisation in the Non-Household sector, it will create greater disparity in customer experience between regions	Yorkshire Water has considered the strategy recommendations from MOSL, relating to Smart Meter coverage and Yorkshire Water will confirm its metering strategy.
Business Stream	Demand reduction Non-Household Customers consume almost a third of the water used in England and we firmly believe that they have a role to play in meeting demand reduction targets. In your survey, you ask whether and to what extent demand reduction should be relied upon to bridge the projected demand/supply gap. We believe that it can, but it won't happen without considerable effort and investment from the water industry.	We note Business Stream's comment, and our non-household strategy is discussed in our revised plan.
Business Stream	At the moment, the Non-Household sector has relatively low levels of awareness of the water scarcity issue and customers are not terribly motivated to change their consumption behaviours. Whilst our ambition is that ultimately customers take	Noted

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	responsibility for reducing their own consumption, we recognise that this will take time to achieve. In the meantime, in order to ensure that Non-Household Customers play their role, it will require support from water industry stakeholders, in particular: • consistent efforts nationwide to raise awareness of the issue and the consequences of doing nothing; • funding to directly support and incentivise Non-Household Customers to reduce their consumption and to sustain behaviour change; and • collaboration between wholesalers and retailers to develop and deliver a range of solutions.	
Business Stream	We are especially keen to work with wholesalers on this third bullet. Several wholesalers have attempted over the last few years to launch water efficiency incentive schemes, aimed at involving retailers in water efficiency delivery, but without significant success. From our perspective, the reasons were largely three-fold: • the administrative requirements of each scheme were relatively complex and there was no uniformity in approach; • the level of the incentive was often insufficient to meet the cost of water efficiency intervention and make it worthwhile for all parties; and • the requirement to demonstrate demand reduction was impossible to meet without smart metering data being available.	Noted
Business Stream	These are valuable lessons that should inform future collaboration. We suggest that a suite of standard collaboration options could be developed, jointly by	Noted

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	wholesalers and retailers, (the RWG Water Efficiency Group would be the obvious vehicle), that would be common across the market. These common options need not be the only options offered by a wholesaler, but it would establish a 'baseline' across the market. These common options might include: • Joint branding, with intervention funded by the wholesaler, but delivery could be by wholesaler/retailer/third party; • Grants or targeted voucher schemes for specific activities – e.g. fixing leaking toilets/taps/urinals; • One or more types of water efficiency incentive scheme – where wholesalers make funds available either for targeted activities, or on the basis of a £/Ml/day demand reduction, which would be more flexible in response to innovative proposals from retailers/third parties/customers; or • Auctions, in which bidders compete for funds to deliver a specific demand reduction (although this may need to come later with greater experience of the cost of delivery).	
Business Stream	It seems likely that different collaborative options could be developed that would be appropriate to different customer groups, and could be geographically targeted at areas of greatest need, or to coincide with a domestic customer water efficiency programme. Options could be designed to be consistent across the market, but which build in flexibility to allow and support more innovative approaches. Collaborative schemes will however inevitably need a way of demonstrating delivery that is not dependent on granular consumption data	Our approach on water efficiency will be collaborative and we aim to strike a fair balance between innovation and consistency. We are including a Smart Meter Programme in our plans. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	(unless smart meters are part of the incentive). At least for a period, this might have to be on the basis of assumed reduction per input/intervention (e.g. X litres per tap aerator etc.).	
Business Stream	Smart Metering Key to our customers' experience and essential to the sustained delivery of demand reduction, is the availability of more granular consumption data. Not only will it help improve bill accuracy, but it will allow Non-Household Customers to understand their consumption and to monitor the effectiveness of water efficiency action taken. We will also need better consumption data to demonstrate demand reduction commitment to Ofwat, to monitor progress against Defra targets and to 'prove' customer's change in behaviour.	Noted
Business Stream	We recognise that Ofwat is encouraging wholesalers towards investment in smarter metering, but has stopped short of a performance commitment in this respect. We are concerned that in the absence of any policy direction from Government or a common incentive in PR24 to ensure a consistent, market wide metering strategy, especially for the roll out of smarter metering, regional differentiation in meter provision could increase, creating greater disparity in Non-Household customer experience. We are pleased to see that Yorkshire has made a commitment to retrofit smart meters for Non-Household Customers alongside domestic customers over the next 15 years, but our key 'ask' is to ensure that Yorkshire's level of ambition, pace and	At Yorkshire Water ~89% of NHH properties are metered. Yorkshire Water invested heavily in AMR's from AMP5 onwards. Yorkshire Water plans not to treat HH and NHH properties any differently regarding the progression to smart (AMI) meters. Our Policy will be driven by the battery on the AMR device becoming life expired. This is expected to result in >85% of existing meters being upgraded to smart meters in AMP8, with the remaining meters occurring in future AMPs. As such Business customers will be part of the regional rollout programme and result in a high % of the NHH market operating using AMI technology by the end of AMP8. This high level of AMI penetration within our NHH property base will enable opportunities in both leakage and water efficiency and is included within the demand management activity in the WRMP24 preferred plan.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	focus of investment is consistent with a national market-wide picture.	Yorkshire Water already gathers 15-minute flow data on the largest NHH customers across the region. There are 1295 Continuously Logged users (CLU's), providing 15-minute flow data to Yorkshire Water. These customers use 35 MLD of Yorkshire Waters ~270 MLD of NHH demand per day. The smart rollout added to the existing largest customers already having the equivalent of smart metering installed, aligns, or surpasses, MOSL ambition in relation to NHH metering and Demand Reduction.
Business Stream	In conclusion, we would like to see specific commitments to Non-Household Customers with respect to both of these important areas as the Business Plan is developed.	We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.
Business Stream	Drought planning and management In addition to the key points above, we note the question in your survey relating to drought. We have been encouraged by the leading role Yorkshire Water have played through the RWG Drought Group in attempting to bring consistency and clarity to the rules and exceptions that apply under TUB and NEUB restrictions. Similar to the need for a consistent approach to demand reduction and smart metering, this is also an area where collaboration and consistency is key. We see the value in the continuation of the RWG work to develop consistent policies and matrices showing the commonality and variation of restrictions, and would like to see this developed further into standard approaches to communications to retailers and Non-Household customers, including timing (with advance notice) and clarity on the ask on retailers. Similarly, a framework for targeted (drought-specific) demand	We welcome the feedback, and we will continue to work for greater consistency where this is required including through RWG and proactively engaging in projects to update guidance (such as UKWIR code of practice).

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	reduction incentive schemes should be developed to set out the options available in various scenarios (e.g. NEUBs and the availability of smart meter data) that would allow greater foresight, consistency and ultimately effectiveness of such incentives. We appreciate the reactive nature and need for innovation in such circumstances but these efforts would enable quicker, consistent approaches that are more efficient in achieving our collective aims. Such guidance should also be aligned to a common framework for non-drought related efficiency incentives (as mentioned above). This feedback is consistent with our input into UKWIR as part of their update to the drought code of practice. While we see the need for this updated version, we recognise the value the RWG provides to compliment this, through specific practical guidance for wholesalers and retailers, that is subject to continuous development via the RWG.	
Business Stream	As a final point, it was very encouraging that wholesalers and Ofwat actively sought input from retailers in relation to the PR24 methodology, and the wholesaler/retailer workshops run last year were hugely useful in that respect. Matt Rix played a leading role. Some of the proposals in the Ofwat Methodology paper have the potential to make a very positive difference to the Non-Household Market, and we would therefore be keen to see further joint wholesaler/retailer/Ofwat sessions as the detail of the various incentive mechanisms is developed. We would also be happy to discuss bilaterally.	We welcome the positive feedback and look forward to continuing to work closely together on both implementation of measures and future rounds of planning.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
CCW	The Non-technical summary document should be accessible and informative for the public and although it is a helpful document for setting the scene of the Water Resource Management Plan, we feel it could have been better at engaging those readers who are "non-technical" or new to the subject. As the company's research has shown "customers are unaware of current or potential water scarcity within the Water Resources North region". In addition customers felt that "a focus on education was something that was potentially missing" from your plan. Improving the draft plan will benefit the company and consumers by providing material and tools to better engage on water resource issues in the future. While the non-technical summary is clearly written it is very text heavy, overly complex and therefore could not be described as "accessible" to a wide audience. It would benefit from the use of visuals and infographics to help to enhance comprehension and understanding within all sections of the document. For example, illustrating what proportion of the predicted supply-demand deficit will be caused by licence reductions, climate change, population growth etc. We would also recommend the use of video clips for engagement with a much wider audience. There is evidence within documents of customer engagement and research and explanation of how the findings from this engagement influenced the formation of the plan for example "how we have developed the metrics that we have used for our best value planning process". We feel that including a simplified version or graphical representation of	We will provide a more customer friendly summary of the plan when we publish our final WRMP24 later this year. We will also look to create a video or animated version of the plan to aid accessibility (as we did for WRMP19).

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	this within the Non-technical summary would help customers understand how what they have told the company has fed into the selection of the options included in the plan. This is particularly important when it comes to issues that directly impact on customers such as smart metering and water saving or their priorities such as leakage reduction. For example, there is a lack of detail on schemes such as "retrofitting indoor water efficiency devices", customer supply pipe repairs and smart metering	
CCW	We are pleased to note that the Yorkshire Water Customer Forum were engaged in the research programme and all materials, including discussion guides, were developed in conjunction with the Water Resources North companies. We note that the company has also drawn upon previous research.	Noted. Thank you for your positive feedback
CCW	There is significant reliance on demand side options and whilst the dWRMP outlines that this will be gained through smart metering, behaviour change programmes and leak detection technology we felt that the document lacked detail on how this might be achieved.	Yorkshire Water has developed process, system, and resource requirements to support customer side leakage resolution, leakage find efficiency and improved night use modelling capability which in turn will improve leakage targeting. These processes have been costed and a roadmap is being created as to when these capabilities can be embedded into BAU activity, and the benefits realised. This will be dependent upon a positive PR24 determination, funding the required enhancement investment in hardware and systems. Our revised draft WRMP will look to include further detail of our demand management activities as appropriate. Yorkshire Water is determining the demand side target performance levels utilising individual intervention unit cost and benefits. The optimisation is happening within the Yorkshire Water WRMP optimiser. This optimisation will set the

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		long-term target for leakage reduction. Yorkshire Water has used the RPS Strategic Optimisation of Leakage Options for Water resources (SoLow) tool. This tool is recognised as best practice across the industry and is used to optimise the interventions within the plan to deliver the leakage targets and the trajectory of leakage improvement within the plan. Yorkshire Water will include the expected 25-year leakage trajectory within the draft WRMP. Additionally, we will submit the individual cost and MLD benefit of each intervention type within the plan. In addition to smart metering and behaviour change activities our draft plan included offering household customers the option to be fitted with a flow regulation device, as stated in sections 8.4.2 and 11.2. Yorkshire Water has undertaken trials with companies offering water efficiency digital platforms. This trial covered several thousand customers and continued over multiple years. The engagement rate and benefits realised, has been considered when modelling the business systems and process's which are required to support customer water efficiency and the cost benefit of such initiatives. Yorkshire Water has developed process, system and resource requirements to support customer side leakage resolution, leakage find efficiency and improved night use modelling capability which in turn will improve leakage targeting. These processes have been costed and a roadmap is being created as to when these capabilities can be embedded into BAU activity, and the benefits realised. This will be dependent upon a positive PR24 determination, funding the required enhancement investment in hardware and systems.
CCW	Water efficiency Labelling of washing machines and dishwashers seems to account for a significant proportion of the demand reduction benefits. It	Details of water efficiency labelling are included in the main WRMP technical document. We will consider whether it is possible to include further detail in the non-technical summary, although we also note CCW's request to make the

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	would be helpful to include some details to support these assumptions in the non-technical summary	non-technical summary more accessible and less "wordy". There will clearly be a balance to be struck between adding further information to the summary whilst ensuring that it is accessible to all.
CCW	The dWRMP assumes that a 3% reduction in demand will occur for households upgrading to smart meters. We welcome the trial that is being conducted but would be interested to learn how the 3% assumption has been arrived at and how the trial results will impact upon planning assumptions?	1. Evidence from other water companies who are more advanced in the smart (AMI) metering delivery and customer engagement, have seen PCC reductions ranging from 2-12%. Accommodating a range of starting positions from no meter to visual read meter, to AMR. The lessons learnt from these companies is that using granular information, the highest percentile users of water should be the focus of proactive engagement as the mode water use is actually in line with long term ambitions to achieve 110 PCC. 2. Supply pipe leakage and PL visibility will be clear by utilising continuous flow analysis. Working with customers to resolve these continuous flows downstream of the customers meter will result in less water billed and a PCC benefit 3. Yorkshire Water plan an improved digital experience with customers, contextualising consumption across a number of comparators. The sharing of smart meter data with customers will enable customers to make better informed decisions about their water use and appliance water efficiency and result in PCC improvements Across the 3 statements above, it is acknowledged that PCC influencing is a medium risk, as customer habit is difficult to change and influence. However, the best information available to Yorkshire Water after significant engagement (including Yorkshire Water creating and chairing a UK smart metering advisory group) with national and international companies, is that 3% PCC reductions through smart metering initiatives through both proactive and passive

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		customer engagement is an acceptable and realistic ambition but not without risk.
CCW	The profiled leakage reduction targets outlined in table 11.2 of the plan indicates a significant decrease in leakage reduction between 2026-27 and 2027-28. We would be grateful for an explanation of how this is going to be achieved over this timescale.	For our revised draft WRMP we will be relooking at our leakage reduction profile and considering various different scenarios, which is likely to result in changes to the planned leakage reduction trajectory to achieve the 50% reduction for our final WRMP.
CCW	The non-technical summary (page17) outlines the targets for the growth in metered supplies, from the base year at 56% to 66% in 2025 and 89% by 2089. This seems like a very big jump by 2025 and then slows right down over the following 64 years. We would be interested to know the reasons for the increase in meter installations and how the company plan to achieve it	The proportion of households with a metered supply increases over time whilst the unmetered proportion decreases. This is due to all new builds being fitted with a meter and unmetered households selecting to be fitted with a meter. From 2015 to 2020 the proportion of metered households increased by 11% and on average 27.3k households switched from an unmetered to a metered supply. We have assumed a meter uptake rate that slows down over the planning period as the potential for unmetered households to switch to a metered supply declines as a larger proportion of households become metered over time i.e. there are fewer properties with an unmetered supply that can switch. At the start of the forecast period (2020 to 2025) we assumed an optant rate that is based on the recent average annual uptake but slightly lower at 26.7k per annum on average, to reflect a declining number of properties with potential to switch. This results in a 10% increase in metered households. From 2025 onwards we reduce the annual optants in each 5-year period, which results in a lower percentage change to the metered proportion. See WRP table lines 34.2BL, 43BL and 44BL for the rate of change at a zonal level.
CCW	It is disappointing that the draft WRMP lacks detail on how the wholesale company should work with business customers and retailers in the short and long term to reduce demand and increase water	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. We are considering granular options on NHH water efficiency

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	efficiency. We note however, that on page 20 of the Non-technical summary the company states "We are still developing our strategy for reducing non-household use to achieve a 9% reduction by 2035 and this will be incorporated into our final WRMP24." The non-household retail market has so far failed to deliver a market for water efficiency assistance for business customers in England to the extent that was envisioned when the non-household retail market opened for all businesses in 2017. While the introduction of a new business demand Performance Commitment by Ofwat in the PR24 final methodology means there will be greater transparency and an opportunity set challenging targets, this is not a regulatory measure that can deliver demand reduction by itself. We would like to see greater innovation and ambition in demand management, with the wholesale company showing how it will engage with customers and retailers on joined up strategies to help reduce demand.	which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.
CCW	CCW is calling on Wholesalers to have a clear plan for smart metering for business customers in their PR24 business plans (and WRMPs) and accelerate those plans where possible. These should include a targeted approach, prioritising the following areas from 2025: • Meters left unread for 12 months or longer. • Water stressed areas. • High water users.	At Yorkshire Water ~89% of NHH properties are metered. Yorkshire Water invested heavily in AMR's from AMP5 onwards. Yorkshire Water plans not to treat HH and NHH properties any differently regarding the progression to smart meters. Our Policy will be driven by the battery on the AMR device becoming life expired. This is expected to result in >85% of existing meters being upgraded to smart meters in AMP8, with the remaining meters occurring in future AMPs. As such Business customers will be part of the regional rollout programme and result in a high % of the NHH market operating using AMI technology by the end of AMP8.

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		This high level of AMI penetration within our NHH property base will enable opportunities in both leakage and water efficiency and is included within the demand management assessment in the WRMP. Yorkshire Water plan a conurbation-by-conurbation rollout methodology allowing for network infrastructure and meter install to be aligned in a cost efficient and timely manner. An approach which targets single properties discrete from a wider rollout plan, would not result in an efficient roll out programme and may result in lags between meter install and IOT network capability being "live" in that specific local. Large users are already a Continuously Logged users, as per existing Yorkshire Water Policy on a set volumetric value or a % of total DMA flow. As such Yorkshire Water already has 1295 CLU's collecting 15-minute flow data for the largest of our customers, and the wider smart meter rollout (subject to final determination) will replace over 100,000 NHH meters with Smart meters, minimising the number of meters long unread and collecting regular readings to understand high users water efficiency and wastage.
CCW	We also wish to see Wholesalers commit to working with retailers to implement water efficiency services/water audits in their business plans (and WRMPs)	We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.
CCW	The company's research found that customers have "a general willingness to pay a small increase in bills for investment against targets as long as water companies are transparent about this. It is therefore unfortunate that costs have been excluded from the	We will look to include some high-level cost data within a new non-technical summary when we publish our final WRMP24 later this year.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	Non-technical document. It would be helpful for customers looking at this document to know what the bill impact of the options chosen within this plan will be.	
CCW	It is clear from the dWRMP that there are many areas requiring investment all of which will come at a cost and lead to an increase in customer bills. That investment will be put at risk unless we protect those on a low incomes through a better-targeted affordability scheme.	Our proposals to continue to grow our support for customers for whom water bills are difficult to afford will be set out in our PR24 business plan submission.
CCW	Finally, for those readers who choose to take a deeper look into the plan, it may helpful to include footnotes, page numbers or preferably direct links directly within the Non-technical summary highlighting where in the technical documents they can find the underlying information	Thank you for your feedback, we will look to include some links as you have suggested in a new non-technical summary when we publish our final WRMP24 later this year.
CRT	The Trust have been working closely with Yorkshire Water for many years managing an existing raw water abstraction from the River Ouse, where the Trust are the Navigation Authority. We recognise that Yorkshire Water are recommending in their dWRMP24 that Option DV8(v), a new abstraction from the River Ouse and associated increased treatment works capacity, be brought forward to meet their predicted supply demand balance. Yorkshire Water are stating that the new works would be constructed in AMP8 (starting in 2025/26) in advance of the Severn Trent Water transfer termination in 2035. The Trust, as Navigation Authority, will need to understand the impact of this new abstraction and any associated infrastructure	The DV8(v) option does not require a new abstraction. It will make use of existing abstraction permissions. We will continue to work closely with CRT on all aspects of water resources planning in our region where there are joint interests, and this includes the potential for additional abstraction from the navigable River Ouse and any related implications for concerned parties.

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	requirements and look forward to developing this with Yorkshire Water	
CRT	It is not entirely clear why Yorkshire Water have redacted large parts of their published WRMP24 Tables. We would recommend that information is provided on a consistent and transparent basis, across the sector, to promote an open and collaborative approach to water resource planning.	We have redacted our dWRMP24 tables in line with the Security and Emergency Measures Directive (SEMD)requirements, in discussion with our own security team and consistent with our approach to previous rounds of planning.
Everflow	Opportunities in the business market Business (non-household) customers use around 30% of water supplies, but water efficiency work has focussed heavily on household rather than non-household customers over recent decades. It was expected that the opening of the business retail market would stimulate water efficiency delivery but neither customers nor retailers have been incentivised sufficiently for this to happen. Some structural barriers have contributed to this, and we helped develop the Retailer Wholesaler Group's plan, which proposes regulatory changes to provide the industry with targets, incentives and funding for water-saving interventions.	Noted. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.
Everflow	We were pleased to see that Defra announced the 9% demand reduction target for NHHs. We would like to understand further how this will be applied in practice, particularly in companies' WRMPs. For example, will certain areas of England take on a greater share of water saving than others? It does not seem fair that already water stressed areas with high demand are asked to save more than others –	We will continue to work closely with regulators, retailers, other wholesalers and NHH customers to promote and align water efficiency activity. We note that, in general terms, it is preferable to reduce demand for water particularly in areas of water stress, rather than invest in costly infrastructure to move water around the country, whilst noting that, of course, supply-side solutions do have an important role to play in future water resources resilience. A balanced approach needs to be taken.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	particularly with Ofwat's encouragement of water trading between regions.	We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.
Everflow	Overview of draft WRMPs Regional and wholesaler water resource management plans do not adequately consider the potential of the NHH market to deliver water demand reduction. Some general commitments to the NHH market are included, e.g., retrofitting NHHs with smart meters alongside households over 10 to 15 year periods, but we would like to see more details about NHH smart metering and water efficiency plans before final WRMPs. Echoing MOSL's point from their WRMPs response, several WRMPs barely mention the NHH market in the main document, and in some cases, important NHH information is buried in appendices. The NHH market consumes 30% of water in England, so it's essential to include an overview of how it features in your plans in the main document. Business customers' involvement is essential to the industry meeting its demand reduction targets, but they have low awareness of water scarcity threats and how they could affect their businesses. Business customer awareness also feeds into general household awareness and employers are in a prime position to influence their employees' behaviour.	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.
Everflow	Smart meters This market is ideally placed to support overall demand reduction targets, which will avoid investing in expensive and environmentally destructive new infrastructure. Our market consumes a third of	At Yorkshire Water ~89% of NHH properties are metered. Yorkshire Water invested heavily in AMR's from AMP5 onwards. Yorkshire Water plans not to treat HH and NHH properties any differently regarding the progression to smart meters. Our Policy will be driven by the battery on the AMR device becoming

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	potable water in England and Wales and lends itself to very targeted interventions. For example, 3% of NHH customers use 72% of water in the NHH market – or 20% of all consumption. Just 11,000 large meters and 152,000 medium-sized meters could be targeted for smart meters to achieve 80% of the impact of fixing leaks promptly and reducing consumption. Recent research by Artesia for MOSL found a strong business case for rolling out smart meters to NHH customers alongside domestic customers (e.g., by geographic area rather than prioritising one over the other). It also recommended companies without large-scale meter investment programmes would benefit from replacing or upgrading selected NHH customers' meters, particularly the largest customers and/or where businesses are close together Ensuring that customers' usage is visible to water providers and customers themselves, and that water scarcity situations are proactively communicated and linked to usage, is key to getting customers to understand their potential contribution towards reducing water scarcity and protecting the environment. We therefore urge wholesalers to align with the national NHH metering strategy being developed by MOSL. From our review of WRMPs, many wholesalers are intending to roll out smart meters from 2025 or have already started. However, there are no set dates for when every business will have one. Wholesalers that have already rolled out smart meters identified around 25% of the water being used by NHH customers is continuous flow – a large proportion of	life expired. This is expected to result in >85% of existing meters being upgraded to smart meters in AMP8, with the remaining meters occurring in future AMPs. As such Business customers will be part of the regional rollout programme and result in a high % of the NHH market operating using AMI technology by the end of AMP8. This high level of AMI penetration within our NHH property base will enable opportunities in both leakage and water efficiency and is included within the demand management assessment in the WRMP. Yorkshire Water plan a conurbation-by-conurbation rollout methodology allowing for network infrastructure and meter install to be aligned in a cost efficient and timely manner. An approach which targets single properties discrete from a wider rollout plan, would not result in an efficient roll out programme and may result in lags between meter install and IOT network capability being "live" in that specific local. Large users are already a Continuously Logged users, as per existing Yorkshire Water Policy on a set volumetric value or a % of total DMA flow, giving us 15-minute granularity into ~35% of our NHH demand already.

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	this could be leakage and/or wastage. Smart meters enable leaks to be detected much quicker so that wasted water can be minimised. One million smaller NHH customers use water in a very similar way to households (toilets, sinks, etc.) and have similar meter sizes and usage. We would like clarity on how many smart meters (AMI not AMR) you intend to deploy in AMP8 and beyond, including visibility for retailers on when and where they will be rolled out, to avoid duplication of effort or customers paying for loggers when they don't need to.	
Everflow	Data sharing We would like wholesalers to align with the national NHH metering strategy position on data sharing. Proactive logging and continuous flow/high usage alerts for customers via retailers are also key to obtaining 'in the moment' conversations about water efficiency which NHH customers are more likely to engage with, so smart data should be shared with the customers' retailer. We would also urge wholesalers to pool their NHH benchmarking data (ideally nationally) and share this with retailers operating in their area, so that the benefits of big data can be realised and result in better targeting of water efficiency and leakage services by retailers	Yorkshire Water currently notify retailers via bilateral processes when continuous flow alerts are flagged for our logged customers. As we transition into smart metering across the region over the coming years, we will seek to ensure the services we offer are designed to make retailers aware of potential leaks or unusually high consumption. – Yorkshire Water are committed to supporting non-household customers and retailers deliver reduction in business demand throughout AMP8. At present Yorkshire Water are leading on one Market Improvement Fund initiative (Project LIDA) to support nationwide benchmarking whilst also co-sponsoring another similar initiative (Project Discovery). We hope to be able to support the industry in defining a consistent approach to benchmarking consumption and identifying leakage to allow targeted water efficiency activities to take place, therefore delivering the optimum results against our targets whilst supporting resilience across the sector.
Everflow	Water saving National research by the RWG Water Efficiency sub-group steering group has shown that customer	Our approach on water efficiency will be collaborative and we aim to strike a fair balance between innovation and consistency. We are including a Smart Meter Programme in our

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	incentives to increase their water efficiency are insufficient and the savings required to achieve the customers' expected return on investment time unrealistic. The initial (time and money) investment required to achieve water efficiency relative to the size of their bill is a particular barrier to SME customers, which make up the majority of the NHH market. Wholesalers are in a position to apply for funding which they can use to incentivise retailers or collaborate with us on delivering water efficiency. A collaborative approach is important to avoid undermining competition and to increase customer uptake. There is low demand for water efficiency services among businesses1 - even when they are offered for 'free' to the non-household customer. Retailers' relationships with their customers are key to improving this and communications by wholesalers and retailers must be coordinated. We would like more detail on how water efficiency services will be offered to different categories of NHH customers. We want to be able to offer water efficiency services consistently nationwide so that water saving is simpler for NHHs to engage with. We would prefer a nation-wide approach to demand reduction so that multi-site customers have clarity about the services and funding and/or incentives available to them. This is another reason why wholesalers need to focus their efforts on incentivising and collaborating with retailers. Collaboration We would like to see true collaboration between	plans. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	wholesalers and business retailers that delivers value for customers, as well as environmental and water security benefits. In a recent trial with a large water wholesaler targeting customers with continuous flows, we demonstrated the value of our enhanced data and relationship management by more than tripling their usual engagement rate. However, it's important that adequate funding is transferred to retailers to cover such marketing, service provision (e.g., leak detection or water efficiency audits, products etc) and/or contact list costs, at a market rate which recognises the quality of the data they've invested in improving and enhancing since market opening. Funding also needs to reflect actual costs of engaging and delivering such services. Wholesaler water efficiency incentive schemes for retailers to date have been based on per litre usage reductions, and there are inadequate commercial retailer incentives. Due to low business engagement and willingness to pay for leakage and water efficiency services, retailers therefore have not been able to cover the costs of water efficiency services and delivering them. While not all retailers will prioritise providing water efficiency services for their customers, those that do should not be prevented from providing competitive services and innovations that benefit customers and the retail market, as well as the environment and security of supply. Being kept informed and involved in communications between wholesalers and customers is also crucial to maintaining great customer service. We would echo Waterwise's request last year for a	

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	wholesaler commitment to greater collaboration with retailers in the plan, and a more detailed plan for how they will deliver demand reduction in the NHH sector. This could involve: • Technical support with abstraction options • Providing a sterner 'police' type function when customers don't respond to retailers about potential leaks and over consumption (e.g., issuing leak notices and showing local connections with water deficits/risks to supply or the environment) • Sharing smart meter and logger data • Sharing plans for smart meter/logger roll outs • Offering white label services (as most wholesalers already do for meter reading) for leak detection and repair, water efficiency site surveys and installing water efficiency products. However, we believe a competitive market for these services would serve customers best, so do not think that wholesalers should offer these directly to NHH customers.	
Everflow	Drought plans Retaining TUBs and NEUBs for peak demand or droughts is regrettable for our customers, but if they must be used, we ask that the plan details how retailers will be involved in customer communications around these. Ideally communication protocols should be agreed in advance so that they can be sent out in a timely and organised way	TUBs and NEUBs are a required part of our drought management processes. Our WRMP24 shows that, without intervention, there is a greater risk of droughts in the future, which could increase the frequency of drought actions. We therefore propose a twin track approach in our WRMP24 to reduce demand and increase available supplies. This will lead to TUBs and NUEBs being required less frequently in the future, however for resilience we will still retain our drought plan including demand restriction actions, with improved levels of service. We note your comments on proactive communication. The Wholesale Retail Code and updated UKWIR Drought Guidance set out how communications should be carried out between wholesaler and retailers during a drought. In addition, Yorkshire Water currently chair the RWG Drought Group which

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		includes in scope development of supplementary good practice guidelines regarding communication protocols.
Everflow	In summary, we ask that all wholesalers: • Specifically detail their plans for NHH metering and water efficiency • Align with MOSL led national approaches • Think about how to incentivise retailers to deliver water efficiency or collaborate.	Noted. Our approach on water efficiency will be collaborative and we aim to strike a fair balance between innovation and consistency. We are including a Smart Meter Programme in our plans. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.
Historic England	We support the approach to planning that identifies the 'best value' option, whereby decisions are made based not on cost alone but with consideration of other factors such as benefits to customers, the environment and society. However, we observe generally a lack of suitable references to the historic environment in the draft WRMP24. Our letter on the Pre-consultation Briefing Note explained why the historic environment is important in relation to water resource plans. In the final draft of the Plan we would recommend the addition of some contextual text relating to the interaction between the water and the historic environment and the implications of this for the Plan.	Heritage assets, their settings, and the historic environment, are all considered within the SEA which feeds the development of the WRMP. The SEA establishes a baseline against which the Plan's options are assessed and provides a framework for assessing the likely significant effects which this plan might have upon the historic environment. Within the WRMP we highlight the historic environment and its importance in relation to water resources in both Table 8.8 SEA topics and objectives and Table 9.1 WRMP24 decision making metrics
Historic England	We understand from the report that, as a result of a number of additional and significant risks to the future water resource position, in extreme dry years there is a risk of a supply-demand deficit throughout the planning period (2025 to 2085). The Draft WRMP24 plans to address the risks with a twin track approach investing in demand reduction and new supplies. We note	Noted and we are committed to ensuring that any impacts from future options, including the potential import from Northumbrian Water, are fully assessed as and when we are able to do so (as the detail of schemes is developed) and that appropriate mitigation is put in place where required. At the time of any project level environmental impact assessment, we would consult further with Historic England, planning authorities and other Stakeholders.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	that Yorkshire Water are developing an option for a potential import from Northumbrian Water, by new pipeline, from the from the River Tees from 2049. We understand that at this stage there is little detail on the exact siting of this at present but would welcome early engagement to carefully manage any impacts to the historic environment.	
Historic England	We take the opportunity to emphasise that, when laying new pipelines, known archaeological remains and unknown potential for archaeological remains represent both a constraint and consideration to factor into decision-making, informed by liaison with heritage professionals (in such circumstances case, archaeological advisers).	Noted.
Historic England	**Project Specific Comments** Where appropriate, we set out some brief comments on the site-based preferred plan solutions set out in Table 10.1 of the Plan which should be read alongside the general comments on site selection and heritage impact assessment set out in our response to the Pre-consultation Briefing Note.	Noted.
Historic England	R37b(ii) River Aire Abstraction Option 4 - Without knowing the exact location of this scheme it is difficult to comment on potential impact on significance. However, the information provided in Appendix E – Option assessment matrices of the SEA Appendices identifies that there are four Grade II listed Buildings nearby where the	The SEA is intended to be a high-level assessment aimed at highlighting potential environmental concerns, associated with plans and programmes at a strategic level. At a later stage, during the implementation of WRMP options, any major schemes would be subject to a more detailed Environmental Impact Assessment at a project level prior to implementation. It would be at this stage that we would

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	setting may be impacted. The asset may also be a non-designated heritage asset. We note that this project is expected to have a residual minor adverse effect on archaeology and cultural heritage.	consult further with the Conservation Sections and archaeological staff of the various planning authorities, as part of a much wider consultation process. However, should you wish to discuss any specific concerns prior to this we would be more than happy to oblige.
Historic England	DV3 Magnesium Limestone new GW supply - No map has been provided for this site. However, the Appendices Appendix E identifies that the pipeline will be in close proximity to the Roman Ridge Scheduled Monument and that construction work has the potential to disturb unknown buried assets. Without further detail it is difficult to assess the impact of this project, the appropriate level of investigation, evaluation and mitigation required and the necessary timing of this work (i.e. in advance or during construction).	The SEA is intended to be a high-level assessment aimed at highlighting potential environmental concerns, associated with plans and programmes at a strategic level. At a later stage, during the implementation of WRMP options, any major schemes would be subject to a more detailed Environmental Impact Assessment at a project level prior to implementation. It would be at this stage that we would consult further with the Conservation Sections and archaeological staff of the various planning authorities, as part of a much wider consultation process. However, should you wish to discuss any specific concerns prior to this we would be more than happy to oblige.
Historic England	R8b Sherwood Sandstone and Magnesium Limestone Boreholes Option 2 - We are not aware of the exact siting for this project. The SEA Appendices Appendix E identifies that there are a 'number' of Grade II Listed Buildings within 2km of the proposed construction which are anticipated to experience a reduction in the quality of their setting. We would need further detail to be able to assess the impact of this project. We note that this project is expected to have a residual minor adverse effect on archaeology and cultural heritage	The SEA is intended to be a high-level assessment aimed at highlighting potential environmental concerns, associated with plans and programmes at a strategic level. At a later stage, during the implementation of WRMP options, any major schemes would be subject to a more detailed Environmental Impact Assessment at a project level prior to implementation. It would be at this stage that we would consult further with the Conservation Sections and archaeological staff of the various planning authorities, as part of a much wider consultation process. However, should you wish to discuss any specific concerns prior to this we would be more than happy to oblige.
Historic England	R8g Sherwood Sandstone Boreholes support to North Yorkshire - Again, we do not	The SEA is intended to be a high-level assessment aimed at highlighting potential environmental concerns, associated

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	have detail over the exact siting of this project. However, the SEA Appendices Appendix E identifies that the pipeline route is within 1km of three Scheduled Monuments, as well as 120 listed buildings (three of which are Grade I listed) and that all of these assets are anticipated to experience reductions in the quality of their setting. We would need further details for us to assess the impact of this project. We note that this project is expected to have a residual minor adverse effect on archaeology and cultural heritage.	with plans and programmes at a strategic level. At a later stage, during the implementation of WRMP options, any major schemes would be subject to a more detailed Environmental Impact Assessment at a project level prior to implementation. It would be at this stage that we would consult further with the Conservation Sections and archaeological staff of the various planning authorities, as part of a much wider consultation process. However, should you wish to discuss any specific concerns prior to this we would be more than happy to oblige.
Historic England	DV8 (v) New WTW (York) supplied by the River Ouse new treatment stream adjacent to existing site - We do not have detail over the extent, and design specifications of this proposal. The SEA Appendices Appendix E states there are two scheduled monuments and 11 listed buildings within 1 km of the scheme construction, one of which (Grade II* listed building) is in close proximity to the land adjacent to the south of the existing WTW site. We would need confirmation of the location of the project to confirm this. We would need further details for us to assess the impact of this project. We note that this project is expected to have a residual minor adverse effect on archaeology and cultural heritage.	The SEA is intended to be a high-level assessment aimed at highlighting potential environmental concerns, associated with plans and programmes at a strategic level. At a later stage, during the implementation of WRMP options, any major schemes would be subject to a more detailed Environmental Impact Assessment at a project level prior to implementation. It would be at this stage that we would consult further with the Conservation Sections and archaeological staff of the various planning authorities, as part of a much wider consultation process. However, should you wish to discuss any specific concerns prior to this we would be more than happy to oblige.
Historic England	DV8 (iv) New north to south internal transfer connection -50Ml/d capacity 0 Ml/d benefit - We do not have details at this stage over the siting of this proposal. However, the	The SEA is intended to be a high-level assessment aimed at highlighting potential environmental concerns, associated with plans and programmes at a strategic level. At a later stage, during the implementation of WRMP options,

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	SEA Appendices Appendix E states there are three registered park and gardens, 20 scheduled monuments and numerous listed buildings within 1 km of the scheme construction, of which four scheduled monuments and 10 listed buildings (Grade II) are located in close proximity (~100m) to the scheme construction. We would need further details for us to assess the impact of this project. We note that this project is expected to have a residual moderate adverse effect on archaeology and cultural heritage.	any major schemes would be subject to a more detailed Environmental Impact Assessment at a project level prior to implementation. It would be at this stage that we would consult further with the Conservation Sections and archaeological staff of the various planning authorities, as part of a much wider consultation process. However, should you wish to discuss any specific concerns prior to this we would be more than happy to oblige.
Historic England	DV7a(vi) Tees to York Pipeline - NWL import - transfer from Northumbrian Water supported by Kielder Water - We do not have details at this stage in relation to the siting of this project. However, the SEA Appendices Appendix E states there are 15 scheduled monuments and numerous listed buildings within 1km of the scheme construction, of which two listed buildings are located in close proximity (~100m) to the scheme construction. We would need further details for us to assess the impact of this project. The SEA matrix for this proposal currently identifies potential residual effect on sensitive receptors (assuming good practice construction methods)' refers to a 'watching brief' as mitigation for (currently) unknown archaeology. This should be modified to make clear that mitigation might involve set-piece excavation through to monitoring and recording, and that a staged approach is taken to assess the presence and importance of	The SEA is intended to be a high-level assessment aimed at highlighting potential environmental concerns, associated with plans and programmes at a strategic level. At a later stage, during the implementation of WRMP options, any major schemes would be subject to a more detailed Environmental Impact Assessment at a project level prior to implementation. It would be at this stage that we would consult further with the Conservation Sections and archaeological staff of the various planning authorities, as part of a much wider consultation process. However, should you wish to discuss any specific concerns prior to this we would be more than happy to oblige.

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	unknown archaeology, including borehole surveys / deposit modelling, geophysical survey and trial excavation (trenching). We note that this project is expected to have a residual moderate adverse effect on archaeology and cultural heritage.	
Historic England	R31a Additional bankside storage at York WTW - we do not have details over the siting of this proposal it is therefore difficult to make an assessment on significance of the historic environment. We could not locate an assessment of this scheme under SEA Appendices Appendix E.	Thank you for your comment and we apologise for the omission for R31a in Appendix E which we will provide as part of the rdWRMP submission. However, the SEA is intended to be a high-level assessment aimed at highlighting potential environmental concerns, associated with plans and programmes at a strategic level. At a later stage, during the implementation of WRMP options, any major schemes would be subject to a more detailed Environmental Impact Assessment at a project level prior to implementation. It would be at this stage that we would consult further with the Conservation Sections and archaeological staff of the various planning authorities, as part of a much wider consultation process. However, should you wish to discuss any specific concerns prior to this we would be more than happy to oblige.
Historic England	R85 Rebuild Kirklees WTW – new WTW - we do not have details on the scale, siting etc. of this proposal it is therefore difficult to make an assessment of significance. However, the SEA Appendices Appendix E identifies that the WTW is within 1km of two Grade II Listed Buildings which may experience some small reduction in the quality of their setting as a result of the construction.	The SEA is intended to be a high-level assessment aimed at highlighting potential environmental concerns, associated with plans and programmes at a strategic level. At a later stage, during the implementation of WRMP options, any major schemes would be subject to a more detailed Environmental Impact Assessment at a project level prior to implementation. It would be at this stage that we would consult further with the Conservation Sections and archaeological staff of the various planning authorities, as part of a much wider consultation process. However, should

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		you wish to discuss any specific concerns prior to this we would be more than happy to oblige.
Historic England	Comments on the Strategic Environmental Assessment (SEA) We welcome that the need to conserve or enhance sites of archaeological importance and cultural heritage interest, particularly those which are sensitive to the water environment, has been identified as a key sustainability issue from the review of baseline conditions and is identified as a SEA Objective. We also welcome the recognition given to the protection and enhancement of designated and undesignated landscapes, townscapes and the countryside. Overall, we support the method that has been adopted regarding the identification of SEA objectives and the assessment approach outlined in Table 5.1 for archaeology and cultural heritage.	Noted
Historic England	As referenced above, we note that a number of the preferred plan solutions could result in potential for minor/moderate adverse effects on the historic environment. As such, where appropriate, careful and early planning in close liaison with Historic England will be required to avoid, minimise and mitigate any harm to potentially impacted heritage assets.	The SEA is intended to be a high-level assessment aimed at highlighting potential environmental concerns, associated with plans and programmes at a strategic level. At a later stage, during the implementation of WRMP options, any major schemes would be subject to a more detailed Environmental Impact Assessment at a project level prior to implementation. It would be at this stage that we would consult further with the Conservation Sections and archaeological staff of the various planning authorities, as part of a much wider consultation process. However, should you wish to discuss any specific concerns prior to this we would be more than happy to oblige.

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Historic England	We would also encourage you to work with local conservation officers, archaeology officers and local heritage community groups when bringing forward the preferred plan solution. They are best placed to advise on; local historic environment issues and priorities, including access to data held in the Historic Environment Record (HER); how the policy or proposal can be tailored to minimise potential adverse impacts on the historic environment; the nature and design of any required mitigation measures; and opportunities for securing wider benefits for the future conservation and management of heritage assets.	At a later stage, during the implementation of WRMP options, any major schemes would be subject to a more detailed Environmental Impact Assessment at a project level prior to implementation. It would be at this stage that we would consult further with the Conservation Sections and archaeological staff of the various planning authorities, as part of a much wider consultation process. However, should you wish to discuss any specific concerns prior to this we would be more than happy to oblige.
Historic England	In terms of the proposed SEA monitoring parameters set out in Table 9.1 – whilst we welcome the third proposed strategic indicator requiring consultation with relevant stakeholders, we would request a change to this indicator to acknowledge that the aim should always be to avoid impacts in the first instance, then minimise where this is not possible, subject to appropriate justification. This point also needs to be reflected in the second bullet point under 'Archaeology and Cultural Heritage' on page 87 of the SEA report regarding additional mitigation measures.	We recognise the concerns raised by Historic England regarding the proposed monitoring and believe that impacts should always be avoided in the first instance. The rdWRMP Environmental Report will include updated text in Table 9.1 and Section 8.3 to acknowledge this.
MOSL	We are pleased to see a number of commitments to the NHH market in your draft WRMP, including a commitment to retrofit NHHs with smart meters alongside households over a 15-year period. We were also pleased to see that you will be developing	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. Our approach on water efficiency will be collaborative and we aim to strike a fair balance between innovation and

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	options to meet the Defra target to reduce NHH demand by 9 per cent by 2038. We look forward to seeing further clarity on your NHH smart metering and water efficiency commitments in advance of and as part of your final WRMP. Despite Defra's guidance to consider the NHH market in companies 'best value' plans, several WRMPs make minimal reference to the market in the main document. In some cases, important NHH information is found only as part of the appendices. Considering that the NHH market accounts for 30 per cent of water consumed in England, it is essential that key points are included in the main document – not only as business customers have a key role to play in supporting the industry meeting its demand reduction targets, but also because NHH customers' awareness of water security challenges remains low.	consistency. We are including a Smart Meter Programme in our plans. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.
MOSL	We recognise that there are plenty of reasons to focus on the household market, and that Defra only confirmed last week the nine per cent water reduction target for NHHs by 2038. We also recognise that penalties and incentives for households currently dwarf those in the NHH market and that wholesalers no longer own the relationship with these customers	Noted. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP. Ofwat have encouraged us to work directly with non-household customers whilst allowing retailer collaboration which we have considered in our options.
MOSL	Maximising the Benefit of the NHH Market Despite the challenges we have outlined - as we discussed at our recent CEO Forum - there are several aspects of the market that make it ideally placed to support your water reduction targets. The first is scale. As a market that consumes a third of the potable water in England and Wales – three	Noted. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	billion litres per day – the NHH market can, and should, be making a proportionate contribution to your water reduction targets	
MOSL	The second is structure. Just one per cent of NHH customers use half of the water in the market (three per cent use nearer 70 per cent – or 20 per cent of all consumption). Just 11,000 large meters and 152,000 medium-sized meters account for 72 per cent of consumption in the market. This represents a significant opportunity for water companies to address a large proportion of the market's water usage through a targeted programme of smart meter replacements or upgrades (AMI, AMR, smart loggers, etc.). Wholesalers that have rolled out smart meters to date have also identified around 25 per cent of the water being used by NHH customers is continuous flow – a large proportion of this could be leakage and/or wastage.	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. Currently we have 1295 NHH customers with continuous data logging providing 15-minute insight into flow patterns, contributing ~35% of Yorkshire waters NHH demand. The Smart Metering rollout will likely replace end of life AMR technology with AMI technology in an efficient conurbation by conurbation rollout and will result in over 100,000 NHH properties having a smart meter installed in AMP8. This plan is subject to final determination. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.
MOSL	I would like to remind you of the research MOSL commissioned from Artesia Consulting in 2022, which established a strong business case for rolling out smart metering to NHH customers at the same time as domestic customers. It also recommended companies without large-scale meter investment programmes would benefit from replacing or upgrading selected NHH customers' meters, particularly the largest customers and/or where businesses are in close proximity.	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. At Yorkshire Water ~89% of NHH properties are metered. Yorkshire Water invested heavily in AMR's from AMP5 onwards. Yorkshire Water plans not to treat HH and NHH properties any differently regarding the progression to smart meters. Our Policy will be driven by the battery on the AMR device becoming life expired. This is expected to result in >85% of existing meters being upgraded to smart meters in AMP8, with the remaining meters occurring in future AMPs. As such Business customers will be part of the regional rollout

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		programme and result in a high % of the NHH market operating using AMI technology by the end of AMP8. This high level of AMI penetration within our NHH property base will enable opportunities in both leakage and water efficiency and is included within the demand management assessment in the WRMP. Yorkshire Water plan a conurbation-by-conurbation rollout methodology allowing for network infrastructure and meter install to be aligned in a cost efficient and timely manner. An approach which targets single properties discrete from a wider rollout plan, would not result in an efficient roll out programme and may result in lags between meter install and IOT network capability being "live" in that specific location. Large users are already a Continuously Logged users (15-minute flow granularity existing), as per existing Yorkshire Water Policy based upon a set volumetric value or a % of total DMA flow.
MOSL	One million of the smaller NHH customers are virtually indistinguishable from households in terms of the amount of water they consume, how they use water (toilets, sinks, etc.) and meter sizes. We recommend that wholesalers treat the smallest NHH customers effectively as households when it comes to meter replacement programmes, water conservation advice and devices, in order to minimise operating costs and maximise the economies of scale.	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. Our approach on water efficiency will be collaborative and we aim to strike a fair balance between innovation and consistency. We are including a Smart Meter Programme in our plans. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP. Our options include tailoring activity to certain business sectors including small and medium enterprises to minimise costs and maximise economies of scale.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
MOSL	What We Would Like to See in Companies' Final WRMPs Ensuring references to 'customers' are clear, in terms of whether you are referring to households, NHHs or all customers.	Thank you for your feedback we will amend the wording in our final WRMP with this in mind.
MOSL	A clear statement regarding the recognition of the size and importance of the NHH market and the role it plays in delivering your WRMP, reducing water demand and wastage.	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. This will be clearly outlined in our rdWRMP
MOSL	Reference to Defra's nine per cent water reduction target for the NHH market by 2038 and your detailed plans for achieving this target.	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. This will be clearly outlined in our rdWRMP
MOSL	Greater use of the research by MOSL and the Metering Committee to determine the business case for NHH smart metering and the benefits of making meter data available to retailers and customers	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. We recognise that data is key in informing targeted action and reducing NHH demand reduction. More detail on our metering strategy and our NHH demand reduction strategy and the dependencies between the two will be included in our revised draft plan. Yorkshire Water have already started smart metering NHH properties, with New Developments being smart metered as standard and some end of asset life meters being replaced in AMP7. We are currently building our in-house capabilities relating to continuous flow and future strategy for data sharing. Yorkshire Water has a delegate member on the Metering Committee and all the research carried out by MOSL and the Committee have been considered and have inputted to the rdWRMP. We have a log of all research considered and have

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		cross referenced this to where it has been included in the plan.
MOSL	Clarity on the number of smart meters you intend to deploy in AMP8 and beyond – visibility for retailers on when they will be rolled out and where will help avoid duplication of effort	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. At Yorkshire Water ~89% of NHH properties are metered. Yorkshire Water invested heavily in AMR's from AMP5 onwards. Yorkshire Water plans not to treat HH and NHH properties any differently regarding the progression to smart meters. Our Policy will be driven by the battery on the AMR device becoming life expired. This is expected to result in >85% of existing meters being upgraded to smart meters in AMP8, with the remaining meters occurring in future AMPs. As such Business customers will be part of the regional rollout programme and result in a high % of the NHH market operating using AMI technology by the end of AMP8. This high level of AMI penetration within our NHH property base will enable opportunities in both leakage and water efficiency and is included within the demand management assessment in the WRMP. Yorkshire Water plan a conurbation-by-conurbation rollout methodology allowing for network infrastructure and meter install to be aligned in a cost efficient and timely manner. An approach which targets single properties discrete from a wider rollout plan, would not result in an efficient roll out programme and may result in lags between meter install and IOT network capability being "live" in that specific location.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		Large users are already a Continuously Logged users (15-minute flow granularity existing), as per existing Yorkshire Water Policy based upon a set volumetric value or a % of total DMA flow.
MOSL	Where appropriate, cross-referencing the findings of other water companies smart meter rollouts to support smart meter proposals and the scale of water saving opportunities.	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. Thames & Anglian knowledge shares have been attended. There is a risk that other demographics benefits do not fully translate to other regions which will need to be considered.
MOSL	An approach that treats smallest NHH customers the same as households for the purposes of water conservation messages and devices.	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. Our approach on water efficiency will be collaborative and we aim to strike a fair balance between innovation and consistency. We are including a Smart Meter Programme in our plans. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP. One of our options involves communications which will be tailored to different types of customers including small NHH customers.
MOSL	Explanation of how water efficiency services would be offered to different categories of NHH customers – multi-site, industrial customers, commercial/offices etc.	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. Our approach on water efficiency will be collaborative and we aim to strike a fair balance between innovation and consistency. We are including a Smart Meter Programme in our plans. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP. Our

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		options include targeting of certain sectors where we have identified evidence of benefits.
MOSL	Explanation of how you plan to work with retailers collaboratively to engage with customers to reduce water consumption and carry out water efficiency interventions.	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. Our approach on water efficiency will be collaborative and we aim to strike a fair balance between innovation and consistency. We are including a Smart Meter Programme in our plans. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.
MOSL	Exploration of how you plan to work with retailers to avoid denial of PR24 outperformance payments – e.g., a pain/gain sharing mechanism or incentives for retailer water efficiency offerings.	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. Our approach on water efficiency will be collaborative and we aim to strike a fair balance between innovation and consistency. We are including a Smart Meter Programme in our plans. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP. Retailer incentives is one of the options.
MOSL	A country-wide approach to demand reduction, regardless of whether water company regions are designated as being 'water stressed' or not, recognising all areas have local demand challenges.	We are including a Smart Meter Programme in our plans. We are considering detailed options on NHH water efficiency which will be assessed. As stated previously, we are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan, using evidence where available. Our approach on water efficiency will be collaborative and we aim to strike a fair balance between innovation and consistency.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
National Trust	The Trust supports spatial planning and environmental management that takes a holistic and plan-led approach. This includes planning for the long-term, looking at the landscape or catchment scale, and considering the implications for climate change, landscape, heritage and nature	Noted
National Trust	The Trust expects that the final WRMP would incorporate: An environmentally responsible and sustainable approach to development, with clear SMART aims and objectives; The use of the mitigation hierarchy in all aspects of planning and programming – e.g. leakages of water resources to be addressed prior to new development of assets; The development of strategic/regional level drought resilience measures in parallel with the new infrastructure programme; A clear communication and education strategy on management of demand; A commitment to full and effective engagement and communication with all stakeholders that may be affected.	We note the Trust's comments and will take these into account as we finalise our WRMP.
National Trust	When the National Trust acquires land or buildings that it considers to be of outstanding quality, the National Trust Acts provide our trustees with power to declare that land "inalienable". This means that any such land cannot be sold or mortgaged, rather it must remain in the care of the Trust for the benefit of the nation, in perpetuity. Once declared inalienable, this designation cannot be reversed. It is one of the most important ways in which the Trust	We note the Trust's comment and during the delivery of our supply schemes we shall comply with all planning regulations and prior to any applications we will commence discussions with key stakeholders and interested parties.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	delivers its charitable purposes. Any land which the National Trust has declared as inalienable benefits from enhanced protection from compulsory acquisition. Such land cannot be the subject of compulsory acquisition against the Trust's wishes, without the consent of Parliament under a process known as special parliamentary procedure. We would recommend that any developer of water resource assets which may directly affect National Trust land should discuss their proposals with the Trust at an early stage	
National Trust	Affected National Trust property On review of the Yorkshire Water dWRMP, it is clear that a twin track approach is proposed including both supply and demand reduction options. Whilst there is some high-level detail included on the supply proposals, the consultation does not include any specific detail on the exact proposals including detailed locations or plans. Nevertheless, the National Trust has a number of properties / areas of land within the plan area that may have the potential to be relevant to the consultation and could be affected by the proposals. However, we are unable to comment on these specifically until further details are provided. National Trust land and property holdings within the area include (but not limited to) Fountains Abbey, Yorkshire Dales including Malham Tarn, North York Moors including Bransdale, York area properties including Beningbrough Hall and Nunnington, Marsden Moor, Hardcastle Crags, East Riddlesden Hall, Nostell Priory and Wentworth Castle Gardens.	The SEA provides a high-level assessment aimed at highlighting potential environmental concerns, associated with plans and programmes at a strategic level. At a later stage, during the implementation of WRMP options, any major schemes would be subject to a more detailed Environmental Impact Assessment at a project level prior to implementation. It would be at this stage that we would consult, and be able to provide more information to, stakeholders including of course the National Trust as appropriate. However, should you wish to discuss any specific concerns prior to this we would be more than happy to oblige.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
National Trust	We have identified that the following proposals may have the potential to impact upon National Trust land. We would like to request further information when available as it may be possible to discount any direct impacts at an early stage. - DV7a(vi) - Tees to York Pipeline – transfer from Northumbrian Water supported by Kielder Water - DV8(iv) – New north to south internal transfer connection (York to South Yorkshire Pipeline) - DV8(v) – New WTW (York) supplied by the River Ouse new treatment stream (adjacent to existing site) (if this is at either Acomb or Naburn then direct impacts on NT land considered unlikely) - R3a – River Ouse licence transfer - R8g – Sherwood Sandstone Boreholes to support North Yorkshire - R13 – East Yorkshire Groundwater Option 2 – new groundwater supply and WTW - R37b(ii) - River Aire Abstraction Option 4 - R85 – Rebuild Kirklees WTW	The SEA provides a high-level assessment aimed at highlighting potential environmental concerns, associated with plans and programmes at a strategic level. At a later stage, during the implementation of WRMP options, any major schemes would be subject to a more detailed Environmental Impact Assessment at a project level prior to implementation. It would be at this stage that we would consult, and be able to provide more information to, stakeholders including of course the National Trust as appropriate. However, should you wish to discuss any specific concerns prior to this we would be more than happy to oblige.
National Trust	The dWRMP recognises that major adverse impacts for options DV7a (vi) York Pipeline Option 1 and DV8 (iv) York to South Yorkshire Pipeline are anticipated in relation to biodiversity, materials assets and resource use, protection and enhancement of geology/soil quality, and minimisation of greenhouse gas emissions. With regard to cumulative impacts, the dWRMP recognises that the geographical extent of the pipeline routes in both schemes are large and until detailed construction	We note the Trust's comment and during the delivery of our supply schemes we shall comply with all planning regulations and prior to any applications we will commence discussions with key stakeholders and interested parties.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	plans are developed, it is not possible to confirm the likelihood of any effects. Consequently, we reserve the right to comment further on these proposals once further details have been confirmed.	
National Trust	It is important that for any new development of physical assets the need and justification is clearly set out, in comparison to other options or alternatives. In addition, the likely adverse impacts on cultural heritage, landscape, nature and in respect of climate change should be fully assessed, and minimised and/or mitigated as appropriate. We would also expect proposed developments to maximise the potential benefits for people and nature.	Our WRMP has identified a need for supply schemes and proposes a solution and further work is required as we move from the WRMP to planning applications then delivery. This will include full impact assessments and identifying appropriate mitigation measures where applicable. We note the Trust's comment and prior to any planning applications we shall gather the necessary data and evidence to support our proposals
National Trust	Where there are areas of National Trust land potentially affected by any stage of the overarching dWRMP options that we have not been specifically identified above, due to the absence of specific asset details and locations in the dWRMP, and/or due to the necessary optionality that such a long-term plan necessitates, the Trust would welcome further engagement on Yorkshire Water's draft WRMP24 prior to its finalisation.	The SEA provides a high-level assessment aimed at highlighting potential environmental concerns, associated with plans and programmes at a strategic level. At a later stage, during the implementation of WRMP options, any major schemes would be subject to a more detailed Environmental Impact Assessment at a project level prior to implementation. It would be at this stage that we would consult, and be able to provide more information to, stakeholders including of course the National Trust as appropriate. However, should you wish to discuss any specific concerns prior to this we would be more than happy to oblige.
Natural England	Natural England consider Yorkshire Water's dWRMP has insufficient information to determine impacts on designated sites concerning the Humber Estuary Special Area of Conservation (SAC) and Ramsar site, River Derwent SAC and Lower Derwent Valley Special Protection Area (SPA). Natural England requires	A meeting was held between YW and NE on 25/04/23 where we discussed our proposed approach to revising the dWRMP24 based on the comments raised during consultation. It was agreed we would revise our assessments to include as much information as possible regarding potential impacts and scope for mitigation. It was also agreed a proportionate

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	further information in order to determine the significance of these impacts and the scope for mitigation, if any.	approach could be applied to options outside of the preferred plan as these options tend to have more uncertainty and it is just the preferred plan which is subject to Reg 63 tests. See responses for specific comments pertinent to this below.
Natural England	Monitoring. Clarity is needed in relation to monitoring for options in regard to the HRA outcomes. This is pertinent to schemes which require mitigation. Yorkshire Water should note how the measures would be monitored, how long for, and how success/ failure would be determined using the monitoring outputs.	Specific monitoring requirements are not usually provided in the HRA. HRA outcomes feed into the SEA and any monitoring that may be recommended is picked up in this process. The SEA details, within Section 9, monitoring for options identified in the preferred plan. It should be noted that these monitoring recommendations are based on the current understanding of the scheme design. As options are brought forward for development, further monitoring requirements may be set out. This will be discussed with relevant key regulatory bodies and stakeholders to agree the appropriate scale and duration of such scheme-specific monitoring activities proportionate to the assessed environmental risks
Natural England	There are no maps within the HRA that highlight the option scheme in relation to designated sites – Natural England would encourage maps to be included to help with analysis.	The guidance suggests maps are recommendation over requirement. If NE would like to request a high-level overview map for a specific scheme this could be provided to NE only. This would be subject to security checks due to sensitive information.
Natural England	Natural England welcome the inclusion of combination and cumulative assessments in the report. However, Yorkshire Water need to consider inter-cumulative assessment. Natural England encourage Yorkshire Water to provide additional information to determine whether Yorkshire Water will be able to address the evidence gaps as necessary, to identify and remove uncertainty where impacts are expected in short-medium term.	We are aware of the limitations of the inter-cumulative assessment at the dWRMP stage. When submitting the dWRMP we did not have visibility of the plans from neighbouring water companies or regional groups. Section 7.4 of the SEA will be updated following a review of the now-published Draft WRMPs and Regional Plans. We will address any evidence gaps where we can and put proposals in place where this may not be possible in the timeframe for this plan.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
Natural England	The Environmental Destination as defined in the Regional Plan modelling that has been relied upon by Yorkshire Water may not go far enough, fast enough nor it is prioritised in the correct locations to meet the nature recovery obligations set out in Annex 2. In addition, the company has timed the obligations it does include within its plan towards the end of the 2050 period. This may be considered too late to meet many of the nature recovery obligations set out in Annex 2	For our revised draft WRMP we have reviewed the profile and pace of our proposed environmental destination. We are in active discussion with EA and NE on this issue, the need for AMP8 WINEP investigation(s) and the practicalities of moving at greater pace (should investigations support reductions in abstraction). Following a review of the comments on the draft plan, we propose to bring forward the Decision date to 2027 and the Trigger date to 2040. We will update section 3.8 of the plan (*Sustainable Abstraction and Environmental Destination*) to reflect this position and provide more context on the decision.
Natural England	Annex 1 - Detailed comments With regard to particular options as set out in the Habitat Regulation Assessment and Plan: • R31a Additional bankside storage on the River Ouse at Elvington. Although identified in the preferred plan but not until 2066. No mitigation measures identified for habitat loss and the effects on loss of functionally linked feeding and roosting habitat. Additional surveys will need to be considered for future implementation to ensure no adverse effects on the Lower Derwent Valley SPA and Lower Derwent Valley Ramsar.	We will revise the Stage 2 AA(s) in relation to this option and include the comments provided by NE. Where possible, we will identify a mechanism for mitigation against habitat loss, noting we are assessing at a strategic-level without site survey information and project-level scheme detail.
Natural England	• R3a Acomb Landing to Moor Monkton licence transfer – preferred plan 2027 The monitoring data that supports the no adverse effect on the population abundance of sea lamprey in the River Ouse is outdated (2014). Natural England suggest updated monitoring to rule out adverse effects on population abundance associated with the Humber Estuary SAC and Ramsar site. The	We are currently undertaking a WINEP investigation on the River Ouse assessing the effects of using the full licence capacity at Acomb Landing. To date this appears to show there would be no/limited hydrological impact over and above the current conditions. The Stage 2 AA for the Humber Estuary SAC/Ramsar will be updated to include latest information from this WINEP

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	potential for mitigation measures should be implemented if sea lamprey population has increased. Consideration is needed that adverse effects on integrity have not been avoided or mitigated to remove adverse effects with sufficient certainty within this option.	investigation. [Note we are still waiting to discuss final outputs of the WINEP with the EA] This was discussed at a meeting with Natural England on 25/04/23 who agreed with this approach. We can share the results from the WINEP investigation with Natural England once this has been reviewed and approved by the EA.
Natural England	• R29 Reservoir de-silting –Potential adverse effects on North Pennine Moors SAC and SPA, South Pennine Moors SAC, Peak District Moors SPA, South Pennine Moore Phase 2 SPA. Desilting reservoirs were not subject to an Appropriate Assessment because of lack of site specific information. Natural England have concerns with regard to this option as it has potential for detrimental impact on protected sites. Natural England would request to be involved with the exploration of this option to ensure mitigation is acceptable to avoid adverse effects.	It should be noted this option is not included in our preferred plan or the adaptive pathways. It was selected c.2080 in the least cost scenario, which is used as a benchmark for the best value plan. It is not a proposed solution to meet the deficit. Stage 2 Appropriate Assessments will be completed for all designated sites potentially affected by the reservoirs included in this option, albeit at a high level using best available information. In-combination effects of reservoir de-silting will also be reviewed and assessed where appropriate. The reservoir sites are spread across the supply area therefore it is unlikely designated sites would be impacted by the de-silting of multiple reservoirs. The de-silting would also be staggered should the option be taken forward in future WRMPs.
Natural England	• R78 Tidal Abstraction Reservoir – Potential adverse effects on Humber Estuary SAC, SPA and Ramsar Site. There is potential direct loss of qualifying habitats. Natural England have major concerns surrounding this option and would request engagement during the development of this option due to the adverse effects on the Humber Estuary SAC, SPA and Ramsar Site if this option is to move forward. Natural England have concerns with regard to this option as it has potential for detrimental impact on protected	We recognise the complexity around options concerning the Humber designated sites. A Stage 2 Appropriate Assessment has been completed for this option and potential mitigation will continue to be explored. Due to the option implementation of 2068, we recognise there will be sufficient time for engagement with NE as the option progresses.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	sites. Natural England would request to be involved with the exploration of this option to ensure mitigation is acceptable to avoid adverse effects.	
Natural England	• DV8(iv) Elvington WTW to South Yorkshire pipeline –50 Ml/d – DV8(v) Elvington WTW capacity increase. preferred plan 2029 . Yorkshire Water have stated that this option is 0.11km from Lower Derwent Valley SAC, SPA and Ramsar and 0.18km from the River Derwent SAC – Further clarity and information relating to whether this is the pipeline route or the end of construction zone is needed. Natural England suggests that a four year construction is not labelled as 'short term' and the effects of construction on the European Sites should be assessed with a longer term view. Further consideration and information will be needed in relation to reinstating and provision of supporting habitat loss. Natural England encourages Yorkshire Water to undertake Phase 1 or UK Habitat Classification Surveys and wintering bird surveys to support the option. There is also a concern and needs further consideration that under option DV7a vi and DV8(iv) these may have adverse effects on River Derwent SAC and Lower Derwent Valley SAC during construction.	We realise the need for further information on the assessment of these options. The HRA for the designated sites will be reviewed and updated to include the suggestions outlined by NE with regards to mitigation and monitoring.
Natural England	**In combination assessment:** In relation to River Derwent SAC and Lower Derwent Valley SAC in relation to construction of four schemes in preferred plan. • R31a Additional bankside storage on the River Ouse at Elvington • DV7a(vi) Tees to Elvington Pipeline –NWL import –	Section 5.3 of the dWRMP states that the construction periods for these options do not overlap however we will need to consider the potential for effects as a result of successive construction. A Stage 2 Appropriate Assessment will be completed to cover the construction only impacts from implementation of the options. No operational issues have been identified.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	140 Ml/d • DV8(iv) -Elvington WTW to South Yorkshire -50 Ml/d capacity 0 Ml/d benefit • DV8(v) Elvington WTW capacity Increase . Yorkshire Water need to consider inter-cumulative assessment. Natural England encourage Yorkshire Water to provide additional information to determine whether it will be able to address the evidence gaps as necessary, to identify and remove uncertainty where impacts are expected in short-medium term.	Where possible, we will provide additional information in the plan-level cumulative assessment to address any evidence gaps and remove uncertainty.
Natural England	Further consideration and clarity is needed regarding possible cumulative effects on the downstream Humber Estuary in combination with schemes in Severn Trent Water draft WRMP which may affect flow in the River Derwent and River Trent. This could affect freshwater flows and could potentially affect qualifying interests for which the Humber Estuary designated features.	We are engaging with the other water companies/regional groups to agree a way forward in regard to assessing in-combination effects on the Humber Estuary. However, this is a complex issue, and the lack of available hydrological models and data mean this issue is unlikely to be solved before submission of the final WRMP. We will review the timing of the option implementation along with flow series data for the Humber Estuary to determine risk from the Yorkshire Water options. We will review this against the now-published Draft WRMPs and Regional Plans to determine potential for in-combination effects. However, as noted above there are likely to be actions to continue after submission of the final WRMP with the other water companies/regional groups, and we will put proposals in place where this may not be possible in the timeframe for this plan. This approach was agreed through further consultation with NE.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
Natural England	Specific designation site River Hull Headwaters SSSI. Information is needed as to whether there is potential impact on this specifically around issues of low flow associated with existing extraction from West beck (section of R Hull Headwaters).	Yorkshire Water is licensed to abstract water from two locations on the river Hull. We are currently undertaking an AMP7 WINEP investigation to assess the sustainability of abstraction from one of these locations (the West Beck raw water intake, located at the downstream extent of the Hull Headwaters SSSI). Based on historic concerns around the impact of abstraction on the SSSI, Yorkshire Water does not routinely use this intake and the investigation seeks to establish whether water can be abstracted without adversely impacting designated features. The outcome from the investigation, due to be completed in 2024, is unlikely to have a bearing on the WRMP supply-demand balance (the supply-forecast does not assume or account for any abstraction specifically from the West Beck intake). We will continue to engage with Natural England, the Environment Agency, and other stakeholders throughout the investigation.
Natural England	**Groundwater Options** The potential impacts of groundwater options (R6, R6b, R6c, R6d)(R8g) (R13) are anticipated to result in significant adverse effects, leading to moderate impacts on water due to potential impacts on ground water balance and surface water flows, with potential major adverse effects on biodiversity due to construction (SSSI impacts). Natural England welcomes further investigation on the potential impacts and would request to be involved with the exploration of this option to ensure mitigation is acceptable to avoid adverse effects.	It is important to highlight that not all options have been selected in the preferred plan or the adaptive pathways. However, it is noted in our assessment matrices for these options that consultation with Natural England (and other stakeholders) regarding detailed design and mitigation would be required during the project planning stage if any of these options were to be taken forward. At this stage, we would welcome NE's involvement in exploring these options further and agreeing appropriate mitigation.
Natural England	R61 East Yorkshire coast desalination and Tidal Abstraction Reservoir (R78) options have the potential for major adverse effects on biodiversity as it may impact on the Humber Estuary	The R61 East Yorkshire coastal desalination is not within the Preferred Plan, and is selected in an adaptive pathway c.2065. The Tidal Abstraction Reservoir (R78) is an alternative to this option.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	SAC/SPA/Ramsar. Natural England welcomes any further investigation on the potential impacts and would request to be involved where necessary, to address the evidence gaps, to identify and remove uncertainty where impacts are expected.	Acknowledging Natural England's concerns about these schemes, it was agreed during the meeting with NE on 25/04/23 that it is only the Preferred Plan which is subject to the Reg 63 tests and as such a degree of proportionality could be applied to these assessments where there is likely to be more uncertainty. It was agreed that high-level Stage 2 AAs will be completed, however these will be limited to best available information on both the extent of the qualifying features, and likely components of the schemes at a strategic-level i.e., dispersion plume modelling of any hypersaline waste-stream from the desalination plant has not been completed, therefore the Stage 2 AA can only make inferences around the potential for Adverse Effects on site Integrity. As option R78 is an alternative to R61 there are no in-combination effects with these options. Given the position of these options within the adaptive pathway and post-2060, there is sufficient time to engage with Natural England ahead of the next WRMP cycle.
Natural England	**Otter mitigation:** Many options have designated sites that have protected otters. The plan identifies minimum mitigation - CEMP/ dust/ air borne etc, therefore suggest further mitigation below: If the destruction of an otter holt is unavoidable, ensure: • there is no net loss of breeding or resting sites • an enhanced habitat, for example, its quality or area compared with that lost is provided	We will review and update the HRA with the suggested mitigation NE has outlined where impacts on otter have been identified.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	• any loss of otter access and habitat connectivity is replaced The proposal could include compensation measures to: • construct artificial holts to replace those that will be damaged or removed • build viaducts or underpasses to allow otters to cross barriers like roads • install mammal ledges on bridges and culverts to allow for continued passage alongside water bodies • restore or improve habitats to compensate for those that will be lost	
Ofwat	Overall, there are some areas of Yorkshire Water's plan that are in line with our expectations for this stage of a draft WRMP. In particular, it delivers on expectations by: • using methods and data appropriate to the scale and complexity of the problem that it needs to address and has recognising the different problems across its area; • undertaking stakeholder and customer engagement to inform the draft WRMP, including a research project to define customer and stakeholder opinions on the options that may form part of its best value plan.	Thank you for your feedback which has been noted.
Ofwat	However, there are several material areas we have identified from our assessment where the plan does not yet provide sufficient and convincing evidence that it delivers the best value, low regret plan in the interest of customers and the environment. The annex to this letter provides detail	Noted. Our response to these details is provided below.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	on the specific areas of the company plan that we consider need further work and evidence. In particular, in its final WRMP Yorkshire Water should:	
Ofwat	demonstrate that a wide range of options have been fully considered, including appropriate supply and demand options covering a range of option sizes and with different lead in times. Given the current complexity and scale of the planning problem in the draft WRMP, we expect the final plan to provide a wider range of options and more detail of how the scale of options is appropriate for the need in each water resource zone (WRZ). In particular: o consider and test different options to achieve 50% leakage reduction target; o consider alternative delivery profiles and blends of meter technologies to provide sufficient and convincing evidence that its metering strategy is optimal over the long-term;	As discussed with Ofwat in our call on 25th April, it is not feasible to identify and develop new supply options between dWRMP and rdWRMP, due to the work required to identify, scope, cost, and carry out environmental assessments, etc. The EA has accepted this position and we have agreed with the EA that we will submit to them a clear programme showing our forward plan of options development through the remainder of AMP7 and into early AMP8. Since publishing our draft plan we have commissioned RPS consulting to review leakage and water efficiency options. For leakage options, we have submitted a detailed forward plan to the EA for leakage which ensures that we meet the legal requirement in relation to WRMP Direction 3(k). Our rdWRMP24 will include 12 leakage options instead of the six leakage profiles included in the draft WRMP24.
Ofwat	provide sufficient and convincing evidence that the preferred options have been assessed against feasible options using cost data that is reliable, efficient and appropriately allocated;	We have reviewed the cost data used for our preferred and feasible options. Our review did identify some errors in opex figures for some groundwater schemes (double counting of some costs) but these have now been corrected and we are confident that our rdWRMP will present data that is reliable, efficient and appropriately allocated. The WRP tables have been updated to reflect the corrected cost data.
Ofwat	clearly explain the assumptions and methods applied to the cost calculations to demonstrate that feasible options are not excluded from selection due to artificially high estimated costs;	Through review, some issues were some identified with costs in the draft plan, and these have been corrected in our optimisation model. The WRP tables and associated references in the technical document have been updated to reflect the corrections.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		1. Some of the supply option opex was including both standby and duty costs. For example, groundwater sources usually include more than one borehole and in practice we alternative between sites to ensure assets are used regularly. This ensures if there is a pump failure at one site there is always a backup pump. The opex costs were assuming all pumps would operate at all times and this has been corrected. 2. Demand option costs were entered into the optimisation model incorrectly. For the revised plan we have commissioned and consultants with experience in demand management to review the demand options and cost data. The optimiser has been updated and we have rerun the optimiser model to create solutions to the baseline and alternative scenarios (including the Ofwat Common Reference scenarios). By repeating the optimisations, we can assess if the cost revisions create a change to the preferred programme and adaptive pathways. See comments below on specific issues.
Ofwat	provide evidence explaining why policy/decision making constraints have been imposed on its decision-making process. This should explain why constraints are appropriate and in the interests of customers and the environment	This query was discussed with Ofwat in our call on 25th April, and it became apparent that the reference to constraints Ofwat referred to was in Section 3 of the draft WRMP24 and related to deployable output modelling constraints e.g. licence limits at low flows. The policy / decision making constraints imposed on the decision making were explained in Section 9 of the draft plan and listed in Table 9.6 as 'objectives'. Policy and decision-making constraints were used in our dWRMP in response to align with clearly stated regulatory requirements and expectations. We are reviewing these constraints for our rdWRMP. We will revise the terminology used in Section 9 of our revised draft plan to provide clarity where objectives are linked to policy constraints and to provide further explanation on why the

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		constraints are appropriate. This includes the demand reduction policy requirements and an interconnecting pipeline that allows water to be provided to South Yorkshire once the transfer from STW terminates. The Tees transfer was selected in each of the optimisation runs. We delayed the start date to alter in the programme to allow time to investigate alternative options. In addition, we tested the impact of constraining supply-side options into the programme (see table 9.8 of the draft plan). These options had additional non-drought related benefits, which is an objective of our plan.
Ofwat	provide robust and clear supporting evidence for its data tables. We are concerned about the accuracy applied to the WRMP data tables, with missing, incomplete, and resubmitted data. This limited our ability to assess the draft plan and raised concerns about Yorkshire Water's ability to finalise the plan with accurate information.	Our rdWRMP data tables will be fully assured and checked before publication.
Ofwat	Annex Demand management ambition and outcomes A further target is now set in the Environmental Targets (Water) (England) Regulations 2023 for the reduction of potable water supplied by water undertakers in England to people in England. This is that the volume supplied per day per head of population is at least 20% lower than the 2019-20 baseline by 31 March 2038. We expect companies to demonstrate how they will deliver against this target in their final WRMP.	Our rdWRMP will include consideration of delivery against this new policy constraint alongside the other policy constraints already referenced above.
Ofwat	We welcome that Yorkshire Water has set out its plans to reduce leakage by 50% from 2017-18 levels	For leakage options, we have provided a detailed forward plan to the EA which ensures that we meet the legal

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	by 2050. However, it is only proposing a three-year average leakage reduction of a further 6.7% across the 2025-30 period which is a lower level than the 15.0% it is delivering for the 2020-25 period. We expect the company to provide sufficient and convincing evidence of long-term target and ambition testing, an explanation of its decision-making process and a justification for the selected leakage reduction in its final WRMP. We also welcome that Yorkshire Water has set out its plans to meet the per capita consumption (PCC) target of 110 l/h/d by 2050.	requirement in relation to WRMP Direction 3(k). The detailed response shows the range of scenarios optimised, the intervention level costs and benefits and the lowest cost/ best value glidepath to achieving the long-term target. Yorkshire Water is determining the demand side target performance levels and trajectory to the long-term target using a 2-phase optimisation process. This process has changed since draft submission and for revised draft will utilise individual intervention unit cost and benefits. The optimisation is happening within the Yorkshire Water WRMP optimiser. This optimisation will set the long-term target for leakage reduction and any incremental requirements along that glidepath. Yorkshire Water has used the RPS Strategic Optimisation of Leakage Options for Water resources (SoLow) tool. This tool is recognised as best practice across the industry and is used to optimise the interventions within the plan to deliver the leakage targets and the trajectory of leakage improvement within the plan. Yorkshire Water will include the expected 25-year leakage trajectory within the draft WRMP. Additionally, we will submit the individual cost and MLD benefit of each intervention type within the plan. Yorkshire Water has run multiple scenario options with fine optimisation occurring. As such we will evidence our best value trajectory to achieving our long-term leakage target within the revised draft plan.
Ofwat	The company's final WRMP should also reference the target to reduce distribution input by 20% by 2037-38 and demonstrate how it plans to deliver this through a combination of reductions in the key demand components of leakage, household consumption and non-household consumption.	Our rdWRMP will include consideration of delivery against this new policy constraint alongside the other policy constraints already referenced above.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
Ofwat	Demand reduction strategy As we outlined in November 2021, we expect near-term interventions identified in WRMPs to deliver long-term targets (e.g. 50% leakage reduction and 110 l/h/d PCC) to be set in the context of the optimum long-term strategy. Setting a glidepath to meet long-term targets and outcomes should enable an efficient and deliverable long-term programme to be identified. Yorkshire Water's plan only considers a linear leakage reduction profile for achieving the 50% leakage reduction by 2049-50. The company has not considered alternative investment profiles such as one that considers non-linear reductions. The company should provide sufficient and convincing evidence to justify why a linear profile – rather than doing more or less in the near term – is optimal from a timing of investment perspective.	For leakage options, we have provided a detailed forward plan to the EA which ensures that we meet the legal requirement in relation to WRMP Direction 3(k). The multiple scenarios modelled have been optimised to create the lowest cost/ best value glide path to achieving the long-term target. This considers the sustainability of the service improvement, the lifetime of the asset & subsequent investment cycles. The optimised pathway will therefore not be flatline and be optimised based on cost and risk. In summary, we will ensure the rdWRMP includes sufficient appropriate different trajectories for policy areas such as leakage, PCC, etc., to evidence that final preferred plan is appropriate, and in the interests of customers and the environment. Yorkshire Water is determining the demand side target performance levels and trajectory to the long-term target using a 2-phase optimisation process. This process has changed since draft submission and for revised draft will utilise individual intervention unit cost and benefits. The optimisation is happening within the Yorkshire Water WRMP optimiser. This optimisation will set the long-term target for leakage reduction and any incremental requirements along that glidepath. Yorkshire Water has used the RPS Strategic Optimisation of Leakage Options for Water resources (Solow) tool. This tool is recognised as best practice across the industry and is used to optimise the interventions within the plan to deliver the leakage targets and the trajectory of leakage improvement within the plan. Yorkshire Water will include the expected 25-year leakage trajectory within the draft WRMP. Additionally, we will submit the individual cost and MLD benefit of each intervention type within the plan. Yorkshire Water has run multiple scenario options with fine optimisation occurring. As such we will

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		evidence our best value trajectory to achieving our long-term leakage target within the revised draft plan.
Ofwat	We are concerned that the unit costs assumed for demand-side feasible options are an order of magnitude higher than the industry median. The data provided suggests that the 'house water audit' feasible options have an average unit cost of 4,712 p/m³, and 'other water efficiency' feasible options have an average unit cost of 1,254 p/m³. These are not credible unit costs. The company should provide sufficient and convincing evidence that the preferred options have been assessed against feasible options using cost data that are reliable, efficient and appropriately allocated in its final plan.	For the revised plan we commissioned consultants with experience in demand management to review the demand options and cost data. The optimiser has been updated and we shall rerun the scenarios and include the updated costs for the options and the best value plan in our revised draft WRP tables.
Ofwat	Delivery of PR19 performance commitments and WRMP19 targets We welcome that the company is planning to meet its PR19 performance commitment levels for leakage by 2024-25. However, we are concerned that based on the draft WRMP data tables the company does not forecast to deliver its PR19 performance commitment levels for PCC by 2024-25. The company has confirmed that it will be unable to meet PR19 performance commitment levels for PCC. It has also stated that it may revise its PCC performance forecasts as part of its revised draft WRMP24. We expect the company to deliver its PR19 and WRMP19 targets. Companies should not expect additional customer funding to address deficits resulting from under delivery in the current or previous periods. We expect the company to review its proposals in these areas for its final WRMP.	Our PCC target in AMP7 was an 8.9% reduction by the end of AMP7. This was a baseline assumption, and the benefit was mostly due to meter optants. We did not include any enhanced funding for PCC reduction initiatives in our WRMP19. The PCC glidepath has been rebased in WRMP24 from a 2019/20 base year. In 2020/21 demand significantly increased due to the impact of COVID-19 on customer use at home and the impact of the new normal on consumption is still unknown. This is reflected in the pre-plan years. We are unable to achieve the 8.9% reduction in PCC in AMP7 due to our industry leading PCC outturn at the end of AMP6 and the ambitious target set in AMP7 coupled with the impact of COVID-19. A glidepath for PCC in AMP8 is to be determined in the rdWRMP which takes into account the improved data from the Artesia multi-regression model and the adaptive planning required to ensure our 2050 target is achievable.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
Ofwat	Business demand We are concerned that Yorkshire Water has not set out a strategy to reduce non-household water consumption. We have previously highlighted the opportunity for companies to deliver non-household demand reductions, and our expectations that WRMPs will deliver significantly improved levels of water efficiency in the business sector. We expect the company to clearly set out an ambitious strategy for non-household demand reduction in its final WRMP. The company should clearly explain how it has assessed the option of increased smart metering levels for business customers and how its metering plans for business customers aligns with its overall metering strategy.	Our final WRMP and our PR24 submission will clearly articulate our forward strategy for reductions in NHH water consumption. Our approach on water efficiency will be collaborative and we aim to strike a fair balance between innovation and consistency. We are including a Smart Meter Programme in our plans. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.
Ofwat	Per capita consumption (PPC) The data provided by the company to date indicates that it is proposing a three-year average PCC reduction over the 2025-30 period that will deliver a level of PCC 5.6% below the 2019-20 baseline by 2029-30. This represents a further reduction of 3.3% beyond the company's 2024-25 performance commitment level of 8.9%. As the company further develops its forecast PCC performance trend from draft WRMP to final WRMP, it should include the reasons for any changes and explain the impact of any revisions on the optimisation and best value option selection in its preferred plan. We expect the company to provide sufficient and convincing evidence in its final WRMP to justify why its selected targets for demand reduction represent the best	Policy and decision-making constraints were used in our dWRMP in response to clearly stated regulatory requirements and expectations. We are reviewing these constraints for our rdWRMP which will incorporate an assessment of the latest requirements as set out in the Government's Environmental Improvement Plan (Environmental Improvement Plan (publishing.service.gov.uk)). We will update the justification of the profile and targets to deliver the PCC reduction in the Final Planning Section of our revised draft WRMP24.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	value approach to meeting a supply-demand balance or delivering long-term strategic outcomes.	
Ofwat	Leakage We are concerned that Yorkshire Water has looked at a narrow set of demand management options. On leakage, the company has only appraised six options. These options reflect different levels of leakage reduction targets (e.g. 20%, 30%, 50%) rather than different ways of achieving the same target. The company also did not consider targets larger than 50%. The company has therefore provided insufficient evidence that its leakage strategy is best value. We expect the company to consider and test different options to achieve a 50% leakage reduction target in its final plan.	For leakage options, we have provided a detailed forward plan to the EA which ensures that we meet the legal requirement in relation to WRMP Direction 3(k). Yorkshire Water is determining the demand side target performance levels and trajectory to the long-term target using a 2 phase optimisation process. This process has changed since draft submission and for revised draft will utilise individual intervention unit cost and benefits. The optimisation is happening within the Yorkshire Water WRMP optimiser. This optimisation will set the long-term target for leakage reduction and any incremental requirements along that glidepath. Yorkshire Water has used the RPS Strategic Optimisation of Leakage Options for Water resources (Solow) tool. This tool is recognised as best practice across the industry and is used to optimise the interventions within the plan to deliver the leakage targets and the trajectory of leakage improvement within the plan. Yorkshire Water will include the expected 25-year leakage trajectory within the draft WRMP. Additionally, we will submit the individual cost and MLD benefit of each intervention type within the plan. Yorkshire Water has run multiple scenario options with fine optimisation occurring. As such we will evidence our best value trajectory to achieving our long-term leakage target within the revised draft plan. The leakage scenarios run have included up to a 60% leakage reduction. details of the cost benefit analysis for the differing long-term targets, policy decisions and trajectories will be included in the revised draft plan. The multiple scenarios modelled have been optimised to create the lowest cost/ best value glide path to achieving the

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		long-term target. This considers the sustainability of the service improvement, the lifetime of the asset & subsequent investment cycles. The optimised pathway will therefore not be flatline and be optimised based on cost and risk. Within the optimisation we have input all known and emerging leakage interventions and determined the optimum blend of solutions. This includes: Active Leakage Control Smart Network solutions Pressure Management Trunk Main/Upstream initiatives Smart Metering Customer side interventions DMA splitting & optimisation Asset renewal policies
Ofwat	Although the company presents the costs and benefits of each leakage reduction option, it does not present the costs and benefits of the various leakage activities included within each option. For the 50% leakage reduction option, which is selected as the preferred approach, the company lists more than 20 activities which are covered by it including mains renewals, smart metering and pressure management. However, the company does not present the costs and benefits of each of these activities. Therefore, we are not clear how the company has optimised its leakage programme based on the evidence provided. To demonstrate how the company optimises its leakage strategy, disaggregated costs and benefits for each activity included in the leakage options considered, should be presented in the final WRMP	For leakage options, we have provided a detailed forward plan to the EA which ensures that we meet the legal requirement in relation to WRMP Direction 3(k). Yorkshire Water is determining the demand side target performance levels and trajectory to the long-term target using a 2 phase optimisation process. This process has changed since draft submission and for revised draft will utilise individual intervention unit cost and benefits. The optimisation is happening within the Yorkshire Water WRMP optimiser. This optimisation will set the long-term target for leakage reduction and any incremental requirements along that glidepath. Yorkshire Water has used the RPS Strategic Optimisation of Leakage Options for Water resources (Solow) tool. This tool is recognised as best practice across the industry and is used to optimise the interventions within the plan to deliver the leakage targets

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		and the trajectory of leakage improvement within the plan. Yorkshire Water will include the expected 25-year leakage trajectory within the draft WRMP. Additionally, we will submit the individual cost and MLD benefit of each intervention type within the plan. Yorkshire Water has run multiple scenario options with fine optimisation occurring. As such we will evidence our best value trajectory to achieving our long-term leakage target within the revised draft plan. The multiple scenarios modelled have been optimised to create the lowest cost/ best value glide path to achieving the long-term target. This considers the sustainability of the service improvement, the lifetime of the asset & subsequent investment cycles. The optimised pathway will therefore not be flatline and be optimised based on cost and risk. Within the optimisation we have input all known and emerging leakage interventions and determined the optimum blend of solutions. This includes: Active Leakage Control Smart Network solutions Pressure Management Trunk Main/Upstream initiatives Smart Metering Customer side interventions DMA splitting & optimisation Asset renewal policies
Ofwat	Yorkshire Water sets out its customer supply pipe policy to reduce leakage. This includes free supply pipe investigation and repairs/renewals, raising customer awareness about supply pipe ownership and giving customers options to manage their responsibility for supply pipes. We welcome that the	The industry has many forums regarding smart metering, supply pipe leakage/ adoption and water efficiency, which Yorkshire Water actively participate in or indeed chair. Yorkshire Water Policy in AMP8 for supply pipes is currently being reviewed with most water companies now aligning to a free repair for vulnerable customers policy, with greater

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	company is proactively engaging and partnering with water technology companies to trial more effective ways of promoting a more efficient use of water. We are encouraging companies to evaluate the benefits of a common industry approach to addressing leakage on customers' own pipes. We expect companies to provide a view on the benefits of a common industry approach in their statements of response and final WRMPs. We will support companies in the development of a common approach but expect the industry to lead on the development. The Water UK leakage route map to 2050 committed to an informed debate on customer supply pipe strategy by December 2022	emphasis of data sharing with customers to promote self-fix on water losses through customer owned assets, such as pipes, toilets fixtures & fittings for instance. Our finalised strategy for supply pipes will be evidence in section 5.5 of the rdWRMP.
Ofwat	Metering Yorkshire Water has forecast meter penetration to increase from 62% in 2025 to 74% by 2035, and to 80% by 2045. Yorkshire Water is proposing to replace existing automated meter read (AMR) meters with advanced metering infrastructure (AMI) meters. AMI meter penetration is planned to reach 55% by 2035, and 80% by 2045.	Yorkshire Water have undertaken a study to determine our definition of "full" smart metering. This has considered practicalities of installing meters to properties with complex pipe arrangements and the benefit to key use cases of moving closer to 100% smart metering. Further Yorkshire Water has considered 7 scenarios for achieving full smart metering including policy changes such as Change of Occupancy metering and enhanced DMO. More details will be provided in the revised dWRMP for future metering penetration, the policies we wish to implement and our overall benefit realisation strategy.
Ofwat	Although the company sets out its plans to adopt smart AMI metering, it has not considered a wide range of options. The plan considers just three options: enhanced metering for domestic optants, metering on change of occupancy and smart metering. The company proposes to deliver AMI meters over a 15-year period starting from 2025. This	Yorkshire Water has 1.38 million AMR meters which will become battery life expired in AMP8. 7 Metering strategies have been considered, however due to regret spend, deliverability risk, or not being strategically aligned to YW long term strategy, only 3 have been considered within the WRMP. A summary of the 7 metering strategy scenarios will be

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	is despite the company saying that it is still assessing the business case for using AMI and that a decision on this will be dependent on this being cost beneficial. The company has also not tested different delivery profiles nor alternative blends of meter technologies. We expect the company to consider alternative delivery profiles and blends of meter technologies in its final plan and to provide sufficient and convincing evidence that its metering strategy is optimal over the long-term.	included in the revised draft plan, detailing the cost delta, regret spend and service differences between the options.
Ofwat	Assessment of water needs A robust assessment of current and future water needs is critical as it drives the gap between supply and demand and therefore drives the scale of investment required for the 2025-30 period and beyond. We provided detailed feedback on Yorkshire Water's assessment of water needs in our preconsultation feedback in 2022. Some of our feedback has not been appropriately or fully addressed in the draft WRMP and has been raised again in amongst points in this section. Yorkshire Water should provide sufficient and convincing evidence that the feedback has been addressed in the final WRMP. We have identified areas that require further work, and these are set out below.	Our rdWRMP will include further consideration of the feedback that Ofwat has previously provided and include updated evidence as required / where appropriate.
Ofwat	The company's supply demand balance starting point for the draft WRMP24 is significantly lower than its forecast for the same point in the final WRMP19. The reduction in available water for 2025-26 is equivalent to 19% of company water demand	Our draft WRMP24 discussed the difference between WRMP19 and WRMP24 in Section 1.7. Our rdWRMP will include further clear narrative on the differences between the two plans, where there are changes at component level, and fully justify the reasons for the change.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	(distribution input). Although some of the changes are due to supply-demand balance reporting updates, there is still insufficient evidence to understand changes in some areas. In some areas, the evidence suggests that non-delivery or underperformance is the cause. This includes not meeting expected WRMP19 PCC levels, increased non-household demand, changes to climate change impacts, and increased outage and process loss allowances. This means that there are significant concerns whether the overall outcome of the WRMP19 as funded at PR19 has been delivered in the round. The company should fully quantify and justify the reasoning for changes between WRMP19 and the starting point for WRMP24 at a supply-demand balance component level with sufficient and convincing evidence.	
Ofwat	Yorkshire Water should provide assurance that abstraction reductions are not double counted when licence capping is combined with environmental destination scenarios. The explanation of the timing of abstraction reductions, particularly changes in the short term, should be clear and consistent in the main plan narrative.	To develop our proposed Environmental Destination, the National Framework for Water Resources modelled scenarios were interrogated and potential licence reductions (by Ofwat reference scenario) were identified. These were converted into estimated deployable output impacts by adaptive pathway and we can confirm that there is no double counting of reductions. We will ensure the rdWRMP narrative is clear on abstraction reductions.
Ofwat	Yorkshire Water should include improved understanding of demand following the Covid-19 pandemic. We encourage consideration going forward, through sensitivity analysis, of the combined impact of new hybrid ways of working and dry weather not experienced in recent actual data and the impact this may have on the dry year uplift.	The draft demand forecast base year was 2019/20, before the pandemic. We therefore included a covid uplift in the dry year and normal scenarios based on Artesia data, as explained in Section 4.3.7 of the draft plan. The uplift is sustained at 1.68% from 2022/23 onwards. This has not been changed for the revised draft. The dry year uplift is also unchanged since draft.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
Ofwat	It is important that Yorkshire Water steps up its efforts on WRMP19 delivery and meeting PR19 commitments ahead of WRMP24. We expect the company to make substantial efforts on demand reduction for the rest of the 2020-25 price control period, to ensure that the WRMP19 forecast, and PR19 performance commitment targets are met annually, and to set firm foundations for delivering WRMP24.	Yorkshire Water's PCC performance was industry leading in AMP6, at the commencement of AMP7 we saw the start of COVID-19 which impacted and continues to impact our PCC performance in AMP7. Our in-year PCC outturn as reported in APR23 shows a significant improvement on PCC (the best in the industry) but our 3-year rolling average still remains adverse to target. Our target is an 8.9% reduction of PCC from the baseline of 128.2l/h/d as set in WRMP19, this was an ambitious target but one we were confident that we could achieve through the benefits evidence from increased new meter optants and technological improvements across the AMP. We didn't receive any enhanced funding for additional water efficiency initiatives that weren't funded from base and due to the impact of COVID-19 and the need to cease some of the initiatives due to the restrictions imposed this has hindered our ability to reduce household consumption to achieve our PCC targets to date in AMP7. We have an AMP7 turnaround plan in place to ensure we reduce household demand as much as possible by the end of AMP7 to put us in a strong position for AMP8. However, to enable us to achieve the targets set in the rdWMRP24 our PCC will be adjusted to reflect the impacts of COVID-19 in AMP7 and the change in customers behaviours as a result. We are still on track to deliver our long-term PCC target of 110l/h/d by 2050 if we receive the level of enhancement funding required to do so within WRMP24 and PR24.
Ofwat	Options to meet water needs Yorkshire Water faces supply demand deficits, starting at around 100 Ml/d at the start of the planning period, increasing to 400 Ml/d by 2085. The main challenges are climate change, environmental destination and loss of an existing transfer from	As discussed with Ofwat in our call on 25th April, it is not feasible to identify and develop new supply options in between dWRMP and rdWRMP, due to the work required to identify, scope, cost, and carry out environmental assessments, etc. The EA has accepted this position and we have agreed with the EA that we will submit to them a clear

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	Severn Trent Water. There is an increased need to identify options to remove future risk as well as resolving short term supply demand deficits up to 2025. Identifying an appropriate number and range of options to meet water needs is essential to ensure that customers and stakeholders have confidence that the preferred programmes are optimal. We queried how many unique options were included on Yorkshire Water's feasible option list, how much water they could provide and what proportion of expected needs in 2050 these could meet. In its response, Yorkshire Water confirmed it has 37 unique schemes capable of providing an additional 603 Ml/d of water available for use (WAFU). When compared to the forecast deficit of 296 Ml/d in 2050, Yorkshire Water therefore has feasible options that can meet around 203% of its need. Although this represents double the need for Yorkshire Water, we view there being opportunity to explore a greater number and range of feasible options. This is to ensure the best value assessment has the flexibility to select options which are justifiable as best value options for the preferred plan. The final plan should provide details of how the scale of options is appropriate for the need in each water resource zone.	programme showing our forward plan of options development through the remainder of AMP7 and into early AMP8. For leakage options, we have submitted with our SoR a detailed forward plan to the EA for leakage which ensures that we meet the legal requirement in relation to WRMP Direction 3(k).
Ofwat	Yorkshire Water's preferred plan includes 13 options covering a range of option types including new groundwater sources, surface water enhancements, as well as demand options for water efficiency and leakage control. This additional WAFU gained in this preferred plan by 2050 represents approximately	Our rdWRMP data tables will be fully assured and checked before publication.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	125% of the forecast 2050 deficit. We note that some option information in the draft WRMP data tables was lacking. For the final WRMP, we expect all options to be worked up to the same level of detail. This will enable the decision-making tool to select an unbiased preferred best value plan from the option portfolio.	
Ofwat	Yorkshire Water should provide sufficient and convincing evidence to show that it has robustly tested the sensitivity for the date to meet 1 in 500 year drought resilience. This should include presenting the costs, benefits and impact on the selection of preferred schemes of choosing alternative dates including a test of 2050. The selected date to achieve 1 in 500 year resilience should be justified based on this testing and optimised based on the costs and benefits. This is important as the scale of impact, and importantly the date for achieving it, is a key driver for scheduling schemes in the investment programme. The company currently states that this is a regulatory target it must meet and that customers agree with the target level and date. However, customers have not been provided with any context for this or any data on the alternatives. This point was raised in the pre-consultation meeting and has yet to be appropriately addressed.	The WRMP24 Grid SWZ is in deficit from the start of the planning period and our preferred plan is to plan to a 1 in 200 scenario until 2040. To meet the near term 1 in 200 deficit we plan to implement supply and demand options and meet the demand reduction policy requirements. In the draft plan this meant the near-term investment, followed by the medium-term demand reduction closed the 1 in 500 deficit by the 2030s. As part of the revised draft updates, the change to the deficit to meet the long-term environment destination sooner, could alter this position. We will test further scenarios to understand the options around the 1:500 scenario and justify our decision in the Best Value Planning section.
Ofwat	Yorkshire Water has not provided sufficient information regarding option utilisation in the draft plan. We expect to see more robust evidence on utilisation in the final WRMP, in line with feedback in our pre-consultation feedback letters, to fully	YW is completing additional utilisation modelled as a part of the programme of work that will be completed between draft WRMP and revised draft WRMP. We shall incorporate this into our Best Value Planning section and the relevant WRP tables.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	explain and justify the utilisation rates given and to provide evidence that modularity and scalability in optioneering has been fully considered and explored to manage low utilisation situations. Yorkshire Water must provide more evidence in the final plan that operational interventions have been considered and will be implemented where appropriate if this is the best value solution	
Ofwat	Decision making and prioritisation In its best value analysis, the company has considered natural capital and other environmental factors including quantifying the carbon impact. A comparison and justification between the least cost and best value programme has been provided and where investment is needed beyond least cost the value of the additional benefit needs to be presented within the WRMP planning tables with the robustness of this valuation data important for significant areas of investment.	We have made some changes to our demand options and supply demand balance (linked to Environmental destination) in response to consultation feedback. Our revised plan will include the outputs of further optimisation and best value analysis. We will expand on the text in the Best Value Planning section and update the WRP tables.
Ofwat	Yorkshire Water should explain why constraints imposed on its decision-making process are appropriate and in the interests of customers and the environment. Sensitivity tests have been carried out, however there is no narrative to explain whether the constraints limit the cost benefit or value of the potential programmes. In the final plan, evidence should be provided explaining why policy and decision-making constraints have been included as well as a clear narrative about the sensitivity testing outcomes.	Policy and decision-making constraints were used in our dWRMP in response to clearly stated regulatory requirements and expectations. We are reviewing the demand reduction options and 1:500 resilience year related to these constraints for our rdWRMP and will update the Best Value Planning section with the benefits of the alternative programmes we will consider.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
Ofwat	Yorkshire Water has not referred to Ofwat's public value principles. We would like Yorkshire Water to use Ofwat's public value principles, and to reflect expectations set out in the PR24 final methodology, within its best value planning process in its final plan, and to explain how these have been used to inform best value decision making. The robustness of this valuation data is important where companies are requesting significant areas of investment. As well as clearly presenting this, the company should provide sufficient and convincing evidence that the costs to deliver the best value plan is outweighed by the additional value it provides.	Whilst the public value principles may not be explicitly mentioned within the dWRMP, the sentiment and principles behind them intrinsically form part of YW's approach to six capitals and to multi-criteria analysis, which has been used to identify our best value and adaptive plans. We will review how to provide a clearer link between these areas in our rdWRMP.
Ofwat	Yorkshire Water proposes to invest £29 million interconnecting its network in the 2025-30 period. The company has proposed no benefits in this period for these schemes and this should be clearly explained. Additionally, the company may have schemes where interconnectors are necessary to deliver new supplies to areas where water is needed. In these cases, the schemes should be evaluated by combining the costs of developing the new supply with the interconnector costs as a single option to produce an optimised best value plan. We also reiterate our pre-consultation feedback, which aligns with the WRMP guidelines, that sub zonal schemes (not impacting on zonal WAFU) can be discussed within the narrative of the WRMP to provide context but they need to be presented and justified with sufficient and convincing evidence in PR24 business plans rather than the WRMP. When presenting such enhancement schemes companies should clearly identify how they have assessed the	Since publishing our draft plan, we have modelled the benefit of the interconnector. The interconnector will allow water from the York area to be transferred to South Yorkshire. The benefit varies depending on the new supplies built into the plan. At draft the interconnector benefit was zero and the supply benefit was linked to the associated new supply scheme. For the rdWRMP24 we will allocate the benefit the interconnector provides to the option. We will update the WRP tables to reflect the modelled benefit. Our rdWRMP will also provide narrative on any sub zonal schemes that will be included in the business plan.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	degree of overlap with activities they are funded to deliver through base expenditure. Companies should not expect additional customer funding to address risks resulting from under delivery in the current or previous periods.	
Ofwat	Yorkshire Water has used adaptive planning in its draft WRMP to better understand and manage uncertainty. Yorkshire Water sets out three alternative pathways that focus on the biggest areas of long-term uncertainty and show what action will be taken in each case. Decision and trigger points are identified for each alternative pathway and the dates are justified with reference to lead times and uncertainties. Yorkshire Water sets out how it will monitor metrics associated with each trigger point, as well as wider risks and uncertainties that may need to feature in future iterations of the plan.	Thank you for your feedback, your comments have been noted.
Ofwat	In its final plan, we expect Yorkshire Water to present a core pathway in line with the WRPG definition that includes low-regret investment to meet future uncertainties and additional option value to allow further flexibility in the future. The company presents a core pathway, but it includes the existing transfer from Severn Trent Water, which Yorkshire Water states is unlikely to be retained after 2035. The existing transfer from Severn Trent Water, and other options needed in this more unlikely circumstance, should be presented as an alternative pathway in the final WRMP. This is because we define low-regret investment as that required in all or most plausible futures. Feasible and preferred alternatives options	In our draft WRMP, the core pathway did not include the backfill option as the Upper Derwent Valley strategic resource option (SRO) had potential to develop into the preferred pathway once the scheme was progressed further in the RAPID gated process. The backfill was excluded from the core to reflect this uncertainty. Since publishing the draft WRMP24 the SRO study has concluded that the Upper Derwent Valley SRO cannot provide sufficient resource in the time required. This confirms the backfill option is required in all scenarios, and it will be built into the core pathway for our rdWRMP. We will update the Best Value Planning and Grid Surface Water Zone preferred plan sections in the main document and the WRP tables to reflect this.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	to the transfer from Severn Trent Water should be clearly presented in the final plan.	
Ofwat	The forecast supply-demand balance has been tested against each of the common reference scenarios. Yorkshire Water then uses the scenarios that have a 'material impact' to inform decision making and optimisation. However, it is insufficiently clear how scenario testing, in particular the low climate change and low demand scenarios, has been used to identify low regret investment that is required in all or most plausible futures. This testing should expose what investment should be undertaken regardless of future circumstances and therefore is selected in the core pathway. In its final plan, Yorkshire Water should demonstrate: • how the common reference scenarios affect the supply demand balance given the solutions in the preferred pathway; and • whether the optimiser model selects the key core pathway supply options under all or most of the common reference scenarios. As part of this evidence, Yorkshire Water should clearly set out the impact of the Ofwat common reference scenarios compared to the 'most likely' scenarios on which the preferred plan is based. This should include quantifying the impact on demand of the low and high scenarios for climate change, demand, and abstraction reductions across the planning period.	This work will be completed for our rdWRMP, and we will update the Best Value Planning section to show which options are selected in all the common reference scenarios. If this alters the pathways, we will ensure the WRP tables are also updated.
Ofwat	The company should also quantify the estimated impact on the expenditure requirement of: 1) planning based on the high scenarios for climate	This work will be completed for our rdWRMP. As noted in response to Ofwat's queries on our draft WRMP24, much of the investment is driven by an immediate deficit at the start of the

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	change, demand, and abstraction reductions, and the slower scenario for technology; and 2) planning based on the low scenarios for climate change, demand, and abstraction reductions, and the faster scenario for technology. This will allow for improved understanding of the drivers of investment, the sensitivity of the plan to future scenarios and confidence in the investments being proposed. The company should use the results of this testing to identify and justify with sufficient and convincing evidence low regret investments, rather than just ones that meet both high and low planning needs in a non-adaptive way.	planning period. To close this deficit, we must commit to near term investment. This limits the scope for adapting the plan in the short to medium term. However, we will carry out further sensitivity testing and quantify the impacts to reassess / justify the programme and its adaptability. We will update the Best Value Planning section to present this further work.
Ofwat	We expect Yorkshire Water to test the Ofwat common reference scenario for low abstraction reductions, which is to 'assume only currently known legal requirements for abstraction reductions up to 2050'. Following the approach agreed between Ofwat, the Environment Agency and the regional water resources planning groups, companies should include agreed water industry national environment plan (WINEP) changes and licence capping, and use the agreed BAU+ scenario to form a long-term view, but use local reviews to remove licence reductions with significant uncertainty, to form a plausible 'extreme low' scenario.	The draft plan considered the low abstraction reductions scenario in forming the core pathway. This pathway assumed no known legal requirements for abstraction reductions as the reductions included in the WRMP preferred plan are not confirmed. This resulted in a plausible low scenario of zero abstraction reductions. We will reassess the scenarios in view of Ofwat's above comments and our rdWRMP will clearly set out how we have considered abstraction reduction scenarios.
Ofwat	Yorkshire Water identifies some of the assumptions it has made in making forecasts but should be more explicit about what these are in the final plan. The interaction between risk, headroom and adaptive planning should also be explained in more detail.	Information provided in response to Ofwat's queries on our draft WRMP has been added to section 6 of the rdWRMP.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	This should include the information provided in response to our queries.	
Ofwat	We expect to see a clear line of sight between long-term WRMPs and the requested investment at PR24. Yorkshire Water acknowledges that the PR24 business plan is a mechanism to set out investment needs in order to deliver the outcomes specified in its WRMP. The company states that this WRMP forms part of a larger planning framework including the DWMP, regional plans, the river basin management plan and the drought plan.	Noted and we will ensure that investment plans across our strategic planning frameworks and PR24 business plan submission are consistent.
Ofwat	Long term best value programme The company has identified £179 million of enhancement expenditure relating to delivery of its draft WRMP in the 2025-30 period. Over the 2025-50 period the company has identified a requirement for over £1.1 billion of enhancement expenditure. For this investment, Yorkshire Water plans to deliver 139 Ml/d of supply demand benefits (excluding interconnectors) in 2025-30. We have some concerns about Yorkshire Water's proposed investment to deliver its demand side (water efficiency) improvements at a unit rate cost of 4.5 £m/Ml/d. This is higher than the industry median unit rate cost of 0.7 £m/Ml/d and therefore the company should demonstrate how its costs are efficient.	We have commissioned a third party to review demand reduction options and provide cost benefit information that will be used in our revised draft plan. We will repopulate table 4 of the WRP tables to show the revised costs.
Ofwat	Yorkshire Water have identified £3 billion of investment over preferred options (based on whole life costs). There are three preferred options that stand out in terms of whole life net present cost, as costs are high when compared to the benefit for	We have reviewed the cost data used for our preferred and feasible options. Our review did identify some errors in opex figures for some groundwater schemes (double counting of some costs) but these have now been corrected and we are confident that our rdWRMP will present data is reliable,

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	these schemes. Of these options, two are surface water options for which unit costs are higher than the industry average across all options, but these options also present higher unit costs when compared to similar options in the industry. The third is a substantial project, a new groundwater option which has the highest unit cost when compared to other new groundwater options across the industry. Similarly, some of the larger feasible options presented have very high unit costs. Yorkshire Water should provide sufficient evidence costs are efficient and sight any wider reasons for high unit cost options being selected as preferred. These high costs can constrain the scope for choice between options when optimised. Assumptions and methods applied to the cost calculations for both preferred and feasible options should be clearly explained to demonstrate that options are not excluded from selection due to artificially high costs.	efficient and appropriately allocated. We will repopulate table 4 of the WRP tables to show the revised costs.
Ofwat	Several preferred schemes include upgrades to current assets. Yorkshire Water should provide sufficient and convincing evidence that the additional abstraction will be available from these sources in drought conditions, how its inability to currently fully utilise is not a result of poor maintenance of the sites, and that future base maintenance savings of any upgraded assets at these locations have been accounted for in programme costs.	A number of the preferred schemes are linked to existing assets, but the investment proposed is to increase deployable output, not for maintenance. This will be evidenced in the revised plan with the list of schemes of and associated increased deployable output due to enhancement and how the future maintenance will be accounted for going forward.
Ofwat	Stakeholder engagement Stakeholder and customer engagement has been undertaken to inform Yorkshire Water's draft WRMP,	Thank you for your constructive feedback and your comments have been noted.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	including a research project to analyse customer and stakeholder opinions on the options that may constituent a best value plan. The outcomes from customer and stakeholder engagement were used to develop metrics that were used in best value decision making. Customers were given information on the options that could form the best value plan and were able to express preferences on options, including on investment options and their timing and scale. Retailers' preferences on how to deliver market efficiency to the non-household market were also sought as part of the pre-consultation process and considered in the draft WRMP. Engagement with neighbouring water companies and the Water Resources North (WReN) regional group has been undertaken and is well described. Yorkshire Water took part in a joint customer research project with Northumbrian Water and Hartlepool Water as well as collaborating with members of WReN to align strategies. The WReN regional plan has been considered in the development of adaptive pathways in the draft WRMP. Effective engagement with regulators has been undertaken and has been used to refine the draft WRMP.	
Ofwat	Yorkshire Water did not provide sufficient detail of opportunities identified to enable co-funding or co-delivery. Further investigation of partnership opportunities for co-funding and co-delivery with stakeholders should be undertaken and set out in the final WRMP.	We will continue to explore opportunities for co-funding and co-delivery. Whilst this approach may not be suited to a number of the interventions in our WRMP, such as increasing supply, we acknowledge that there could be opportunities for co-delivery and co-funding of other activities, such as water efficiency. We have not identified any opportunities for these co-funded and co-delivered initiatives at this stage but will

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		seek opportunities where appropriate as we plan to deliver our commitments.
Ofwat	Assurance A Statement of Assurance from the Board is provided but is not signed. A supporting statement has been provided setting out how the Board were engaged on the draft plan and confirming that the Board has approved the plan. A detailed description of how the Board and the Board Public Value Committee were updated and consulted is provided, but there is no other information provided of the governance structure or responsibilities for decision making process. In the final WRMP, Yorkshire Water should provide signed assurance statements, and describe the governance structure and how relevant responsibilities are accounted for in the decision-making process.	Our rdWRMP will include a description of the assurance process that we have gone through and how this aligns with the WRMP assurance requirements and the broader PR24 governance structure.
Ofwat	In the final plan, we expect to see evidence of assurance on Yorkshire Water's understanding and acceptance of the approach to licence capping. This is to ensure the risk and impact this imposes on Yorkshire Water is fully understood in the context of the largest drivers of future investment in the plan and the uncertainty that still surrounds this.	Our rdWRMP will include clear narrative around our understanding of licence capping.
Peak District NP	In relation to the Yorkshire Water Draft Water Resources Management Plan 2024 Consultation, the National Park Authority's prime concern is in relation to the effect of actions resulting from the Plan on the Peak District National Park. This relates to the reservoirs themselves, the methods used to	Thank you for your comments which have been noted.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	distribute water around the area and beyond, and any effects on the landscape, cultural heritage and wildlife of the National Park.	
Peak District NP	The Peak District National Park Authority has specific concerns in relation to two proposed schemes within the Water Resources North Draft Regional Plan Consultation that would affect land within the National Park. These are: -	Noted
Peak District NP	1. The Upper Derwent Valley reservoir expansion (UDVRE) The Upper Derwent Valley is located towards the north of the National Park and is surrounded by land that falls under high level environmental designations (Site of Special Scientific Interest, Special Protection Area, Special Area of Conservation). Whilst the proposals might not directly affect the designated areas, any potential for indirect effects would need to be assessed. The delivery of a the UDVRE proposals would constitute major development within the National Park. There is an underlying National Presumption against major development within a National Park. Such development should only take place where strict criteria have been met, as set out within the National Planning Policy Framework (2021). The delivery of such a scheme would be dependent on the developer demonstrating that the scheme: - i) Was in the National Interest ii) Could not be delivered elsewhere (outside of the National Park) iii) Showing consideration of the negative effects of the scheme on the National Park	We note the points raised by PDNPA in relation to UDVRE SRO. With our SRO partners, Severn Trent Water, we are engaging directly with PDNPA and other stakeholders around the development of the SRO scheme and we are committed to continuing with that engagement. This also includes reviewing back-fill options which are now more likely alternatives to the UDVRE expansion.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	and ways in which these could be mitigated. The measures suggested range from the raising of existing dam walls to increase capacity, through to the creation of a new reservoir. In all cases, there will be an extremely large negative impact on the Special Qualities of the National Park.	
Peak District NP	2. DV8(iv) New York WTW to South Yorkshire treated water transfer It is unclear what the route of this proposed scheme will be. However, Table 9.5 of the Yorkshire Water Draft Water Resources Management Plan in relation to the proposed scheme states that: - "Mitigation measures will need to be identified and agreed with Natural England. Detailed scheme design will need to consider risks which have been identified in relation to permitted waste sites and historic landfills, air quality impacts on local populations, heritage assets and the Peak District National Park." It is unclear what part of the National Park could be affected, however, there is a large part of the northern area of the National Park within South Yorkshire that is covered by the same high-level environmental designations (Site of Special Scientific Interest, Special Protection Area, Special Area of Conservation) as the Upper Derwent Valley. Reference to Natural England, would suggest that there is an expected impact on land covered by the aforementioned designations either within or without the Peak District National Park. We note that the delivery of this scheme may be interlinked with delivery (or not) of the Upper Derwent Valley reservoir expansion (UDVRE) scheme.	The original DV8(iv) route had a short (~800m length) proposed pipeline that intersected the Peak District National Park to the west of Sheffield. Construction of the pipeline could have caused temporary adverse effects on the National Park. If this option were to be selected there would be further consultation with the PDNP regarding detailed design and mitigation for impacts on the site. However, YW has also undertaken further route development and are including a new option, DV8(iv)A that avoids the National Park area. Details of this will be provided in the rdWRMP. We are committed to engaging with the National Park on the 'backfill' schemes that we would have to implement should the existing transfer from STW cease and will engage as we develop firmer details of the likely nature of the scheme (including pipeline route).

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	The DV8(iv) proposal seeks to address any shortfall in supply should the transfer of water from Severn Trent Water cease. Given the potential impact of the pipeline on the National Park, we would welcome early engagement in relation to this scheme as the design progresses.	
MOSL Strategic Panels & Committees	The Panel is clear that Water Efficiency is an issue of strategic importance for the future resilience of the water supply and the environment. It is important that market participants and customers are incentivised to use water efficiently and that the market enables customers to better understand their consumption. It is essential that water efficiency becomes core to everyone's business and meaningful wholesaler engagement in relation to the non-household market is critical. An essential enabler for this is water companies' WRMPs and commitments to smarter metering.	Noted. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.
MOSL Strategic Panels & Committees	Having reviewed water companies' draft plans, the Strategic Panel does not believe that they are currently considering the needs and potential contribution of NHH customers. With Defra's target to reduce NHH demand by 9% by 2038 now confirmed, more work is needed by water companies to go further, not only in the commitments set out around metering and water efficiency for the NHH market, but for these commitments to be much more prominent in companies' plans. The NHH market accounts for 30% of the total water consumed in England and Wales. Business customers therefore have a significant role to play in reducing demand	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. At Yorkshire Water ~89% of NHH properties are metered. Yorkshire Water invested heavily in AMR's from AMP5 onwards. Yorkshire Water plans not to treat HH and NHH properties any differently regarding the progression to smart meters. Our Policy will be driven by the battery on the AMR device becoming life expired. This is expected to result in >85% of existing meters being upgraded to smart meters in AMP8, with the remaining meters occurring in future AMPs. As such Business customers will be part of the regional rollout

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	and water wastage – which is particularly important given that 15 of the water company areas in England and Wales are now classified as "seriously water stressed".	programme and result in a high % of the NHH market operating using AMI technology by the end of AMP8. This high level of AMI penetration within our NHH property base will enable opportunities in both leakage and water efficiency and is included within the demand management assessment in the WRMP. Yorkshire Water plan a conurbation-by-conurbation rollout methodology allowing for network infrastructure and meter install to be aligned in a cost efficient and timely manner. An approach which targets single properties discrete from a wider rollout plan, would not result in an efficient roll out programme and may result in lags between meter install and IOT network capability being "live" in that specific location. Large users are already a Continuously Logged users (15-minute flow granularity existing), as per existing Yorkshire Water Policy based upon a set volumetric value or a % of total DMA flow.
MOSL Strategic Panels & Committees	On 9 February, MOSL CEO, Sarah McMath, wrote to you individually asking for specific actions to be taken in developing the final plans. We support the actions MOSL has set out and call on all water companies to clarify their commitments and how they intend to achieve Defra's reduction target. As stated in our market outcomes document 'Water efficiency can no longer be seen as an "add-on"'. Neither can the NHH market be simply an "add on" to water companies' plans for household customers. Instead, the NHH market must be fully integrated into these plans as business customers represent a	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. At Yorkshire Water ~89% of NHH properties are metered. Yorkshire Water invested heavily in AMR's from AMP5 onwards. Yorkshire Water plans not to treat HH and NHH properties any differently regarding the progression to smart meters. Our Policy will be driven by the battery on the AMR device becoming life expired. This is expected to result in >85% of existing meters being upgraded to smart meters in AMP8, with the remaining meters occurring in future AMPs. As such

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	significant opportunity to reduce demand and as the majority of NHH customers use water for the same purposes as household customers (taps and toilets).	Business customers will be part of the regional rollout programme and result in a high % of the NHH market operating using AMI technology by the end of AMP8. This high level of AMI penetration within our NHH property base will enable opportunities in both leakage and water efficiency and is included within the demand management assessment in the WRMP. Yorkshire Water plan a conurbation-by-conurbation rollout methodology allowing for network infrastructure and meter install to be aligned in a cost efficient and timely manner. An approach which targets single properties discrete from a wider rollout plan, would not result in an efficient roll out programme and may result in lags between meter install and IOT network capability being "live" in that specific location. Large users are already a Continuously Logged users (15-minute flow granularity existing), as per existing Yorkshire Water Policy based upon a set volumetric value or a % of total DMA flow.
MOSL Strategic Panels & Committees	I urge all water companies to clarify their plans for NHH smarter metering and water efficiency within their final WRMPs and ensure engagement with the market is at a Board level.	We are continuing to work up our detailed strategy for NHH demand reduction and remain committed to working closely with retailers and NHH customers to deliver an effective plan. At Yorkshire Water ~89% of NHH properties are metered. Yorkshire Water invested heavily in AMR's from AMP5 onwards. Yorkshire Water plans not to treat HH and NHH properties any differently regarding the progression to smart meters. Our Policy will be driven by the battery on the AMR device becoming life expired. This is expected to result in >85% of existing meters being upgraded to smart meters in AMP8, with

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		the remaining meters occurring in future AMPs. As such Business customers will be part of the regional rollout programme and result in a high % of the NHH market operating using AMI technology by the end of AMP8. This high level of AMI penetration within our NHH property base will enable opportunities in both leakage and water efficiency and is included within the demand management assessment in the WRMP. Yorkshire Water plan a conurbation-by-conurbation rollout methodology allowing for network infrastructure and meter install to be aligned in a cost efficient and timely manner. An approach which targets single properties discrete from a wider rollout plan, would not result in an efficient roll out programme and may result in lags between meter install and IOT network capability being "live" in that specific location. Large users are already a Continuously Logged users (15-minute flow granularity existing), as per existing Yorkshire Water Policy based upon a set volumetric value or a % of total DMA flow.
SYMCA	As Yorkshire Water continues to develop a new long-term strategy and business plan and prepare related documents such as the Drainage and Wastewater Management Plans and the Water Resources Management Plan, we welcome the positive approach taken to engage with stakeholders, including through the Yorkshire Leaders Board round table events.	Thank you for your feedback your comments have been noted

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
SYMCA	Growth, resilience and water services in South Yorkshire Aligning Yorkshire Water's plans with the region's housing and economic growth ambitions is vital. SYMCAs Strategic Economic Plan (SEP) sets out a 20 year vision for South Yorkshire. By 2041 it seeks to secure an extra £7.6bn GVA, 33,000 extra people in higher level jobs, and 30,000 more people with higher level skills. It highlights the particular role of growth in the digital, advanced manufacturing, health innovation and energy sectors. Delivering on its ambitions will require new housing, economic development and supporting infrastructure, including the regeneration of brownfield sites and the repurposing of our key urban centres.	Thank you for your feedback your comments have been note
SYMCA	Working with partners, we know that key resilience challenges across South Yorkshire include responding and adapting to the challenges of a changing climate; improving the resilience of our communities to flood and drought events and delivering environmental and water quality enhancements.	Thank you for your feedback your comments have been noted
SYMCA	These issues have implications for water supply and demand across our region. We recognise the challenges faced, as set out in the dWRMP, and are supportive of programmes and investment which improve the quality and efficiency of water services to South Yorkshire's residents and businesses.	Noted and we thank the Authority for their support.
SYMCA	Plan objectives, levels of service and demand reduction We are broadly supportive of the objectives	Noted and we thank the Authority for their support.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	identified in the plan, recognising the policy, guidelines and directions which the plan must respond to.	
SYMCA	The leakage and water consumption targets set out are supported in principle given that they align with the Environment Agency's 'Meeting our future water needs: a national framework for water resources' (2020). This would see leakage fall from 323Ml/d (2017/28) to 161Ml/d (2049/50).	Noted and we thank the Authority for their support.
SYMCA	The dWRMP notes that there is uncertainty as to whether the leakage reduction target can be met and if it will be affordable in the future, and that achieving this will require enhancement of existing leakage techniques and identification of new techniques. Whilst recognising these concerns and challenges, we remain supportive of positive measures which would increase the scale and pace of leakage reductions wherever possible –delivering a 50% reduction in leakages before 2050 and delivering more than a 50% reduction in leakage by 2050.The cost of achieving the leakage reduction target needs to be set against the financial and environmental cost of supply, including replacing the possible loss of Severn Trent transfers discussed below.	Our WRMP explores a range of trajectories for achieving ambitious reductions in leakage, appraised through our Multi Criteria Analysis approach to ensure that our final WRMP can be presented as a 'best value' plan across a whole range of metrics. "We are committed to reducing leakage throughout the life of our plan and we will continue to review leakage techniques and drive leakage down. Our plan at a zonal level reduces the need for increased supply by delivering the 50% leakage reduction and we shall review the timeframe for our rdWRMP. However, the Severn Trent transfer requires alternative supply to be provided as demand reduction cannot substitute the loss of such a key resource. There would be insufficient supply from elsewhere in the network to provide water to the South Yorkshire area, particularly in dry years.
SYMCA	Measures to support a reduction in per capita consumption of water include further roll-out of smart water meters both for households and non-household properties. This is supported both as a means of helping reduce consumption but also recognising that meters can help deliver savings	Noted and we thank the Authority for their support.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	and help reduce the cost of living for customers within South Yorkshire. Encouraging take-up will be vital, and as such we welcome the recognition that the metering strategy will be developed further.	
SYMCA	We are also supportive of the approach adopted to be resilient to a 1 in 500 drought event without reliance on drought measures by no later than 2039.	Noted and we thank the Authority for their support.
SYMCA	Water supply A clear risk highlighted in the dWRMP is the potential loss of the existing water supply transfer from Severn Trent Water owned reservoirs in the Derwent Valley from 2035. Severn Trent include the cessation of this transfer in their dWRMP as part of their preferred approach. Yorkshire Water's dWRMP recognises that this is a critical source of supply to the South Yorkshire area. The loss of this could have significant supply implications for our region. We welcome the commitment from both Yorkshire Water and Severn Trent Water to investigate options which could see this transfer retained by exploring options around increasing storage in the Derwent Valley.	Noted and we thank the Authority for their support.
SYMCA	However, the dWRMP identifies that the most likely outcome is that the transfer will cease and looks to plan for alternative sources of supply to compensate for the deficit. A potential solution to be explored is via an internal transfer from York to South Yorkshire, although further work to explore other options as well will continue.	Noted

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
SYMCA	We are supportive of the approach being taken to plan for alternative scenarios to ensure sufficient supplies are maintained. However, we would highlight concerns at the environmental and carbon impact of transferring water from York to South Yorkshire, including requiring new pipeline and associated infrastructure. The Strategic Environmental Assessment accompanying the dWRMP identifies that major adverse impacts are anticipated from this scheme in relation to biodiversity, material assets and resource use, protection and enhancement of geology/soil quality, and minimisation of greenhouse gas emissions. Whilst this is balanced to some extent with delivering major to moderate beneficial impacts as a result of the increase in available public water supply, we would strongly encourage any investigations (including those with Severn Trent Water related to maintaining the transfer from Derwent Valley) to appropriately consider and minimise environmental and carbon emission impacts in determining the most appropriate solution to this supply issue. This is particularly important in view of national, regional and local net zero carbon targets, including the water industry's net zero carbon commitments.	Noted, and we share SYMCA's concerns that the broader potential environmental impacts of water resources solutions, some of which are required specifically to address reductions in abstraction, are not fully considered within the regulatory and assessment process. We are in dialogue with regulators to understand how this can be better accounted for in future rounds of planning, and how the impacts of, say, reducing abstraction from some sensitive waterbodies are compared to the (potentially greater) impacts of significant water resources infrastructure.
SYMCA	Preferred solution Subject to the comments above, the preferred solution set out in the dWRMP is broadly supported, and it is welcomed that this is forecast to deliver a surplus supply-demand balance, including headroom to 2082/83, recognising that this will require trade-offs to be achieved. The Adaptive	Noted and we thank the Authority for their support.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	Pathways approach is also supported in terms of providing a planning approach to move to alternative solutions at identified gateways depending upon circumstances.	
SYMCA	It is estimated that the preferred solution could increase customer bills by around £4 per year in the early stages (2025-30), rising to around £14 per year towards the end of the planning period (2045-50); recognising the caveats that further work is required to refine these figures. Wherever possible we are supportive of measures which minimise the financial impact on customers within South Yorkshire.	Noted.
UK Water Retailer Council	We are responding to Yorkshire Water's consultation specifically around 1) smart(er) metering and 2) water efficiency. Both of these are key issues to tackle not only to improve service levels to NHH customers, but also to deliver the priorities set out by Government prior to Market opening and in the recently issued 'Environmental Improvement Plan. 2023', confirming the 9% reduction in NHH demand by 2038	Thank you for your comments which have been noted.
UK Water Retailer Council	Thank you for refencing your engagement with Retailers, both directly and through the UKWRC/MOSL coordinated PR24 trading party forum that included issues covered by WRMPs. It is clear from the draft plan that you have picked up the issues that are key for the Water Retail Market, for Retailers and for their non-household (NHH) customers around smart(er) metering and water efficiency.	Noted

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
UK Water Retailer Council	**Smart(er) metering** We welcome the company's intention to install smart(er) metering to both household and non-household properties from 2025. However, we understand however these are likely to be 'smart capable' with the capability turned on subject to the business case being positive. However, we believe the business case for smart(er) metering has generally been established by the work carried out by Thames Water, that highlighted the capability of smart(er) metering to identify continuous night flows on a significant percentage of NHH properties, plus other benefits identified in the research by Artesia Consulting for MOSL.	Every water company has a different starting point for customer metering. Be it the existing meter penetration, the existing technology, the level of supply pipe leakage and PCC for instance. Yorkshire Water already has 65% meter penetration nearly all of which is AMR metered. The incremental business case to transition from AMR to AMI is significantly different to Thames water business case where the focus was no meter to transition to smart meter, whereby there is a significantly greater ability to mitigate leakage due to no existing controls being in place to utilise meter reading data or AMR alarms to manage customer side leakage. As such it is not appropriate to apply other companies' business case without the consideration of company specifics. Yorkshire Water is building the business case for a AMR to AMI transition considering a full range of drivers including but not limited to: Leakage Leakage find efficiency PCC NHH water efficiency Voids Operational Carbon Cmex BR Mex treatment & pumping costs Offsetting capital infrastructure investment
UK Water Retailer Council	We also welcome your proposal to commence a smart meter retrofit programme with all existing household and non-household properties	Thank you for your comments which have been noted.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	that already have an AMR meter installed being fitted with a smart meter over a 15-year delivery programme.	
UK Water Retailer Council	MOSL data suggests that there are 7,482 larger meters (i.e. 40mm and above) accounting for 5.9% of the meter asset base in the Yorkshire Water region. In normal circumstances these meters should be recording far higher consumption than even the highest using household customers.	Yorkshire Water has 1295 Continuously logged users, in line with our leakage policy where the customers demand is above 24 m3/d or a significant proportion of the DMA night use. Together these customers account for circa 35% of our NHH demand. Yorkshire Water will be looking to leverage this data along with the data from our wider metering strategy (which will be updated in the dWRMP) to ensure we reduce demand.
UK Water Retailer Council	The target demand reductions required in the NHH market will require significantly improved data quality, granularity and availability. This cannot be achieved without smart(er) metering – primarily AMI based. Will the company therefore also be including NHHs that currently do not have AMR meters fitted, in their retrofit programme? If so, will priority be given to the higher consumption customers?	Full details of the NHH demand reduction plan will be detailed at intervention level in the revised draft plan. Smart Metering and Continuously logged users are likely to be included within the plan for NHH customers and utilising the data and insight from these devices in an effective manner will be a core strategy to achieving multiple service outcomes for our customers.
UK Water Retailer Council	Water efficiency We note your reference to the 9% target set by government for water efficiency savings in the NHH Market by 2038, and welcome your positive approach to • Introducing new innovative data services to support customers in identifying opportunities for water efficiency. • In conjunction with other wholesalers, retailers and MOSL developing a NHH water efficiency scheme that would support retailers	Thank you for your comments which have been noted.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	developing business models to deliver NHH demand reductions. However we would reiterate your survey findings that it should be role of the retailers, not the wholesaler, offering these services direct to non-household customers. • Developing new innovative data and field solutions to enhance the company's supply point data that should enable improved accuracy of NHH customer bills – reducing customer complaints and incentivising more efficient use of water. • Reviewing tariff and charges and incentivising NHH customers to become more efficient in their water ruse. Retailers will look forward to working in collaboration with the company to engage NHH customers and promote water efficiency	
UK Water Retailer Council	Looking ahead to Final WRMPs When referring to customers, defining whether household or non-household	Noted
UK Water Retailer Council	Confirmation that NHH customers will be included in • The company's rollout of smarter meter installation programmes • The delivery of water efficiency advice and measures. In both cases companies should set out their plans and how they propose to engage and collaborate with retailers and NHH customers.	NHH customers will be included in the conurbation centric roll out of smart meters alongside HH customers and be based upon the end of life of existing AMR technology. In doing so allow for an efficient delivery plan with IOT network and metering solution deployment being delivered in parallel. Full details will be included in our revised draft plan

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
UK Water Retailer Council	Confirm the number of smart(er) meters they intend to rollout during AMP8, broken down by HH – NHH and by AMR – AMI.	Our rdWRMP will include greater detail of our proposals for smart metering roll out.
UK Water Retailer Council	Demonstrate how they have taken account of evidence from the existing research work on smart(er) metering already in the Market, commissioned by MOSL, and the trials already carried out by other water companies	Yorkshire Water conducted a trial of ~3000 smart meters including ~2000 NHH customers starting in 2020. We are deploying smart meters as BAU currently for all new developments and customers HH & NHH who request a meter. As such we have our own growing evidence base on the prevalence of customer side leakage and continuous flow. By the end of FY23/24 we expect to have ~60,000 smart metering operating across Yorkshire. Whilst benchmarking and incorporating knowledge from established smart metering programmes is important and regular liaison with Thames & Anglian water has occurred, we are careful to appreciate the differences between companies in applying assumptions across multiple companies. The starting point for Thames, in most cases being no meter to a AMI meter, provides a very different benefits case to Yorkshire Waters position of AMR metering being upgraded to AMI. Yorkshire Water appreciates the collaboration across the industry in sharing learning and benefits cases and will apply relevant interpretation of the results to the Yorkshire Water business case.
WaterScan	General Feedback We expect Wholesalers to provide a clear, compelling roadmap to meet every target in their WRMP as the current goals are unhelpfully vague. The same applies to the industry-wide commitment to reach net zero operational carbon emissions by 2030.	Our rdWRMP will clearly set out our forward programme of activity to meet targets.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
WaterScan	We recognise the temptation to fall back on national targets set by Defra (for example to reduce per capita water consumption by 9% by 2038) as this allows water companies to request funding through PR24 to meet these targets directly. However, it is essential that Wholesalers move more quickly and go further than Government-set targets. This is especially important considering that per capita consumption excludes non-household (NHH) consumption, undermining the incentives and funding available for improving NHH water efficiency. We are concerned about the setting of national targets and the tendency for water companies to default to these targets. There is a troubling lack of transparency over how these national targets were chosen and whether they are suitable or ambitious enough for particular catchments, water resource zones (WRZs), and/or water companies. Given the risks that national targets have been watered down and do not push Wholesalers far enough, there needs to be greater clarity and justification around why goals and deadlines have been chosen. This is particularly relevant when percentage decreases still leave excessive leakage rates due to high starting points. For instance, roughly 24% of Thames Water's supply is currently lost to leakage, but halving this to 12% is still not nearly acceptable. We do not believe that the current targets are challenging enough. Maintaining shockingly high leakage rates disables customer motivation to	Our draft WRMP included various trajectories towards national targets and our rdWRMP will build further on these. We recognise that some stakeholders would like us to go harder and faster against targets, but it should be recognised that other stakeholders (including regulators) have challenged us to demonstrate that our plans demonstrate best value for customers, and this may mean that in some instances a slower pathway is more appropriate.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	change behaviours and sends the de facto message that high leakage is both acceptable and the norm	
WaterScan	Environmental Action We support interconnected action to tackle climate change, for examples through net carbon neutrality goals and taking better care of local ecologies like sensitive chalk environments. Anglian Water is so far the only water company to voluntarily cap abstraction licences by 2025, which will reduce their abstraction licences by 85%. We urge other Wholesalers to follow Anglian Water's example to strengthen environmental protections and to go beyond mandated targets.	We are committed to enhancing environmental protection where appropriate and this could potentially include further reductions in abstractions. However, we would note that we also need to ensure that we maintain resilient supplies to our customers including during extreme 1 in 500 droughts, and this necessarily means abstracting water from the environment. Where abstraction reductions mean that investment in alternative new supplies becomes required, funding for that investment is required (not always possible if going beyond regulatory requirements) and as a sector we also need to be careful that we do not create other adverse environmental impacts through our investment - such as increased carbon (embedded and operational) - potentially associated with large infrastructure projects. The decision by some companies to cap licences will be dependent on historic abstractions and whether the full licence was utilised and over what periods, therefore it is not always the case that there is under-utilised licence available to cap
WaterScan	A recurring theme across the draft WRMPs is operational net zero carbon emissions targets, with deadlines beginning from 2027 for Essex and Suffolk Water and Northumbrian Water. We encourage water companies to measure, disclose, and work to reduce their carbon emissions – as well as their water footprint – through the Carbon Disclosure Project (CDP). We are also keen for Wholesalers to consider and share their position on water neutrality	Our WRMP optimisation process includes consideration of carbon impacts, and, in common with other water companies, we are continuing to work on our long-term plans for Net Zero in line with industry commitments and regulatory requirements. We will provide additional information about our wider Net Zero plan in our rdWRMP24 submission in the Section on climate change.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
WaterScan	Pre-Emptive Work Wholesalers need to take anticipatory action before the final WRMPs are published in 2024. For Wholesalers who do not forecast a water deficit before 2040 (like Yorkshire Water, Essex and Suffolk Water, and Northumbrian Water), there needs to be greater emphasis placed on innovation to channel investment into preventive measures and scoping projects that the industry as a whole would benefit from. Such trials could include water neutral partnership work and developing final effluent reuse possibilities	YW is forecasting a deficit before 2040 - indeed, our baseline plan shows the risk of a deficit from the very outset of the WRMP24 planning period. We will continue to work with partners and other companies on innovation in the water industry.
WaterScan	Missing Pieces Pollution Events Controversial pollution and sewage discharge events must be reduced to as close to zero as possible. We expect pollution events to be a much more explicit focus in the final WRMPs. Failing to adequately acknowledge these events and to provide a transparent, transformative roadmap for how such incidents will be systematically prevented are blatant shortcomings in the current WRMPs. Pollution events affect the availability of water, the health of society, and the ecological status of river catchments. They also cultivate public distrust and cynicism in the water market, sentiments which are incompatible with positively changing consumer behaviour. The toxic consequences of pollution events lead Waterscan to demand that water companies lead a major cultural shift in the water market. The carelessness of Wholesalers dramatically undermines the credibility, integrity, and potential of any efforts to reduce water demand	Whilst we acknowledge WaterScan's concerns regarding pollution incidents, we would note that the WRMP is about planning for water resources as part of our clean water service, and consequently it does not relate to forward planning for our wastewater service which is covered by other strategic plans such as Drainage and Wastewater Management Planning.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	and wastage or to better protect the environment and this must change.	
WaterScan	Partnership Work While we support the consistent emphasis placed on partnership work, there was an overall lack of clarity and specificity over how such partnerships would be set up, run, and assessed. 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. Wholesalers also need to play a greater role in researching the key challenges facing the water industry by working with collectives like the National Leak Research Centre (run by Northumbrian Water), the Water Research Institute at the University of Cardiff, and the Environmental Change Institute at Oxford University.	We acknowledge the points raised by WaterScan and would refer them to our PR24 business plan submission, when available, for more information on our approach to partnership working which goes well beyond the remit of the WRMP process. For example there will be more information provided around nature based solutions that are being put forward for funding and the partnerships this involves.
WaterScan	Working With Retailers Wholesalers have an untapped resource in Retailers to drive down NHH water usage. We believe Wholesalers need to develop a mechanism that empowers Retailers to offer this service to NHH customers. This would allow Wholesalers to focus on deliverables that cannot be achieved by third parties like leakage reduction, net zero, meeting household (HH) targets, and reducing pollution incidents.	Our approach on water efficiency will be collaborative and we aim to strike a fair balance between innovation and consistency. We are including a Smart Meter Programme in our plans. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.
WaterScan	Impacts on Other Stakeholders There is a serious lack of consideration in the draft WRMPs over how the Plans will affect other	We would welcome further clarity from WaterScan as to the context of this comment. If WaterScan is able to provide a clearer description of the issues that it references and how

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	stakeholders, particularly NHH customers. There is a lack of transparency and clarity around the impact Wholesaler decisions will have on business customers. It is not acceptable to pass problems onto customers. While Wholesalers have a statutory requirement to protect domestic water supplies over NHH properties, this legal caveat should not translate into normal operating practice. This is particularly the case when NHH customers are proactive in managing and reducing their water use. These supply issues are happening now, yet are not analysed in the draft WRMPs. Given these issues, we require all Wholesalers to more carefully consider the cascading impacts of their Plans on other stakeholders like NHH customers.	these specifically relate to Yorkshire Water we will gladly given them further consideration.
WaterScan	Smart Metering: Plans, Data, and Messaging There is some interesting work planned for smart meter networks from Wholesalers like SES. However, considering that smart metering has now been established as the default position in PR24 (Ofwat are expecting 'full' smart meter penetration by 2035-2045), smart meter extension plans no longer seem so impressive. Moreover, the smart metering plans are often presented as broad commitments without providing the substantial detail that is required to inspire confidence in these plans. Importantly, we need more detail on the kinds of smart meter data that will be available, in what form, from what date, to who, and how – and at what cost – this data will be shared.	Yorkshire Water has already adopted a smart meter as standard approach to metering. Our current smart meter specifications log hourly flow data from 4am-2am the following day and 15 minute data from 2am-4am. The exact strategy for integration into the Market and data sharing with retailers is being developed and will be published accordingly. Yorkshire Waters' definition of "full smart metering" is in development and will be included in the revised draft plan, along with a detailed assessment of our glidepath to achieve the required outcomes for our customers in a cost effective manner. Yorkshire Water currently offer a suite of consumption data sharing services, from our market leading meter reading service to access to granular consumption data collected via our data loggers or smart meters. Smart metering is an area which will continue to grow in the Yorkshire area as we reach the end of AMP7 and into AMP8 and beyond; the introduction of large

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		numbers of smart meters over the coming years will give us the opportunity to redefine the services we offer, ensuring we remain committed to maintaining an excellent standard of data provision to retailers and non-household customers.
WaterScan	There is a significant lack of clarity in the messaging around what the smart meter data is expected to achieve. For example, despite the rollout of new meters and water efficiency campaigns, water consumption in the Portsmouth Water area has increased in recent years. This raises questions about the power (or lack thereof) of smart meters to produce long-term behavioural change, meaning that this technology alone should not be relied upon or considered a magic bullet to reduce water consumption	Smart Meters a to be considered alongside a range of other demand reduction solutions to reduce leakage ,PCC and NHH demand. Yorkshire Water will clarify the benefits realisation categories within the revised dWRMP. However, this will include, Supply pipe leakage, plumbing losses as well as behavioural changes to water consumption.
WaterScan	Taking these challenges into account, any smart meter investment should be focused on where there is both opportunity and the need for water reduction. We recommend water companies target the middle sector of the NHH market where a balance between opportunity and customer engagement to reduce water use.	Yorkshire Water has already placed 15 minute logging technology on its largest customer, 1295 CLU's which contribute 35% of yorkshire Waters NHH demand. Yorkshire Water's existing AMR metering solution is approaching its 15 year asset life and as such the AMP8 plan would look to focus on an exchange programme of life expired meters where service can be sustained and improved. Given 89% of NHH properties are AMR metered and >85% of AMR solutions will be replaced in AMP8 Yorkshire Water will have a good coverage across all customer types subject to inclusion in the revised draft plan and PR24 determination.
WaterScan	Given the risk that large scale investment in smart metering generates excellent reporting but fails to tackle underlying issues, Wholesalers need to make greater efforts to fundamentally change perceptions of water as a critical resource. Changes	Noted. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	to price and/or data alone will not be enough to galvanise the changes needed for the majority of the market.	
WaterScan	The Need for a Major Cultural Shift in the Water Market Water companies have a substantial responsibility to lead an urgent, large-scale cultural shift in the water industry. Perceptions are powerful and shape behaviours on all levels, so startling statistics on Wholesaler pollution events and leakage rates create a negative feedback loop that entrenches stagnation and poor practice. The market looks to Wholesalers for leadership in these and other areas. 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.	Our approach on water efficiency will be collaborative and we aim to strike a fair balance between innovation and consistency. We are including a Smart Meter Programme in our plans. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.
WaterScan	Wholesalers need to change the narrative in the water market that propagates, rationalises, and normalises inefficient, irresponsible, and uninspiring performance. Threats to water security, water quality, and water stewardship are very much present in the here and now, so Wholesalers must not allow the current culture to seep into yet another planning cycle.	We note WaterScan's comments, although we would also suggest that any "narrative" around water is not one that is purely in the gift of wholesalers to change and it requires participation from multiple players right across society. Working collaboratively with Regulators and all stakeholders is key to changing the cultural approach
WaterScan	Inaccessible Plans Barriers to Engagement On a presentation note, from the perspective of a reader, many of the Plans were extremely dense and formatted in a way that created barriers to close	We will provide a more customer friendly summary of the plan when we publish our final WRMP24 later this year. We will also look to create a video or animated version of the plan to aid accessibility (as we did for WRMP19).

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	reading or clear understanding. This undermines the quality and integrity of the whole consultation process.	
WaterScan	The Summary documents often provided a useful overview, but the main documents were largely unwelcoming. For documents very often 100+ pages, it was surprising how often questions were left unanswered at the end. Wholesalers must think more carefully about their audience and the role these Plans play in the consultation process. Some of the more digestible Plans came from Affinity Water, United Utilities, Southern Water, South Staffordshire Water, and Severn Trent Water.	We understand WaterScan's concerns regarding the main WRMP documentation. However, it must also be understood that the WRMP has multiple audiences all of which must be satisfied - which is why we produce different versions of the plan, including non technical summaries, for difference audiences. A radical reduction in length of the main WRMP document may not satisfy the particular requirements of regulators and those stakeholders who wish to interrogate the technical detail of the planning process. As per previous comments we have made a commitment to provide a more cusomer friendly summary of the plan
WaterScan	Specific Comments to YW As Waterscan is keen to better understand how catchment scale partnerships work and the conditions that help such schemes thrive, we are interested to find out more about Yorkshire Water's flood prevention and tree planting programmes (with the National Trust as a key partner). We also hope to gain further details into how collaboration with landowners and other stakeholders is managed to achieve multiple benefits (including biodiversity gains and carbon storage).	We would be happy to discuss this work further with WaterScan. We will pass on the request to our catchment management team in order to initiate communication with the right people within YW.
WaterScan	Yorkshire Water's emerging Biodiversity Strategy is outlined in the WRMP. Core Environmental Aspirations guiding this strategy include achieving a net biodiversity gain and enhancing customer engagement with river catchments. However, there is a lack of detail in terms of how these goals will be	Biodiversity and Natural Capital are included in the metrics that we used as a part of the multi-criteria analysis that we carried out to optimise our WRMP. The metrics measure the biodiversity impacts and our multi-criteria- analysis approach compares different combinations of solutions using metric data. Ideally we select the solution that had the lowest impact

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	operationalised in practice and how they feed into the WRMP.	on biodiversity. By assuming the PCC policy requirement and reducing the number of supply side options in our preferred solution the biodiversity metric scored more favourably than the least cost programme. However, in order to ensure we have sufficient supply to meet demand in the future, we have to invest in new supplies, which impacts on biodiversity. When we come closer to implementing a supply scheme we shall assess the impacts further and carry out detailed studies that will include identifying the best solution for offsetting biodiversity impacts and achieving a 10% net gain where applicable. This will be through a combination of onsite, offsite and trading biodiversity credits.
WaterScan	The third Environmental Aspiration ('To give a strong voice to nature in our decision making') is intriguing. Yet this unique stance only appears to translate into making biodiversity 'a consideration within our corporate investment Decision Making Framework' (page 69 of the Main Document, emphasis added). It is surprising that these environmental considerations are not already incorporated into decision-making processes. This falls short of the implications in the ambition statement, which upon first reading appears to connect with the Rights of Nature movement. We encourage Yorkshire Water to be more creative and innovative, or at least to think more carefully about how nature's 'voice' can be better heard in environmental decision-making.	Biodiversity and Natural Capital are included in the metrics that we used as a part of the multi-criteria analysis that we carried out to optimise our WRMP. The metrics measure the biodiversity impacts alongside other key criteria and our multi-criteria- analysis approach compares different potential solutions to close the deficit. Our best value plan scored most optimum for biodiversity compared to the alternatives, meaning of all the candidate solutions it was the least impacting for biodiversity. The plan is a twin track approach that implements both demand reduction and new supply options, and the new supplies will require mitigation actions to ensure, where applicable, biodiversity 10% net gain is achieved. This will be considered at the planning phase through detailed environmental impact assessments and planning applications, which will identify a biodiversity net gain actions that will be a combination of onsite and offsite activities and credit purchases.
Waterwise	Overall we are pleased to see significant detail in the draft plan on how future demand has been calculated and the demand management options	The YW strategy for demand reduction will be closely aligned to the Waterwise UK Water Efficiency Strategy to 2030 which we helped to develop.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	that have been considered when it comes to household demand and leakage. It would be good to see the final plan reference the new UK Water Efficiency Strategy to 2030 which the company helped develop.	
Waterwise	We fully support the water efficiency programme presented including the planned programme of targeted home water saving visits; Thames Water's smarter home visit programme which targets high users is delivering sustained savings of 70 litres per property per day. Areas where we think additional investment could be considered include:	Thank you for your comments which have been noted.
Waterwise	Funding to undertake or support a leaky loo campaign. The former could be progressed as a collaborative campaign on leaky loos with other water companies, the BMA and Waterwise as recommended in our position statement.	We have reviewed the option to include a leaky loo campaign in our AMP8 initiatives with Yorkshire Water providing a free fix for customers with an internal plumbing loss on their tap, toilet or shower. We will re-review the cost benefits of this option and include it as an initiative if there is a demand reduction. Will include the opportunity to link this campaign nationally with other water companies with the support of BMA and Waterwise.
Waterwise	The company could consider offering a leaky loo fix, or a financial incentive to customers to get a leaky loo fixed to sit alongside your existing free supply pipe fix offer.	We have reviewed the option to include a leaky loo campaign in our AMP8 initiatives with Yorkshire Water providing a free fix for customers with an internal plumbing loss on their tap, toilet or shower. We will re-review the cost benefits of this option and include it as an initiative if there is a demand reduction. Will include the opportunity to link this campaign nationally with other water companies with the support of BMA and Waterwise.
Waterwise	We would encourage Yorkshire Water to also include a campaign to raise awareness on dual flush buttons. Research by ESW has found 20% of people incorrectly identify which is the small flush button in their own homes.	We have included an enhancement initiative for water efficiency communication during AMP8 which can include some budget to assist with raising awareness of correct use of dual flush buttons to reduce the volume of water used per toilet

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
		flush to help Yorkshire Water reduce their household water consumption.
Waterwise	We support the trial and planned large scale roll-out of flow controllers in new build properties. Numerous trials across the UK have shown that they can work well and save circa 30-65 litres per property. As well as targeting new build Yorkshire Water could also work with local authorities and housing associations to install them in social housing.	Within our initiative included in the dWRMP for flow regulators, we are trialling flow regulators in AMP7 and including new build developments and collaborating with the YW vulnerability team to install them on customers in social housing as part of the trial.
Waterwise	Yorkshire Water could consider applying for the Waterwise Checkmark for your main office and other offices as part of the programme outlined in Section 5.8 as an externally validated demonstration that you are reducing your own water use.	YW is reviewing this option in AMP7 but we need to ensure this links to the YW accommodation strategy to ensure we using the site with the most opportunity to maximising the demand reduction benefits.
Waterwise	We are pleased to see that the plan includes continuation of the "Use Less, Save More" communication campaign. Given the cost of living crisis this link is more important than ever. As well as water savings the company can highlight associated energy (and carbon emissions) savings.	The YW communication team released the teapot index in 2022 which includes the associated energy savings that customers can achieve if they reduce their hot water consumption. The energy cost saving theme will also run through the 'Use Less, Save More' summer campaign in 2023 to maximise water use reductions and increased customer water bill savings.
Waterwise	We are pleased to see Yorkshire Water proposing to fit smart water meters going forward to HH and NHH customers with a commitment for every new home fitted with a smart meter. Our research coupled with the experiences of Anglian and Thames Water to date have shown that smart metering is a game changer when it comes to reducing leakage and engaging with customers on water use and water wastage. We expect to see more information in the final plan on how this programme will inform and be integrated into the water efficiency programme	We note Waterwise's comments and would agree with them that all water companies should be given the option to progress compulsory metering. Our view is that this option should be available to water companies even if their area is not yet considered water stressed. Why wait until an area is water stressed? It is better to be proactive ahead of time. Unfortunately, Defra have indicated that the current policy in relation compulsory metering and water stressed areas is unlikely to change in the near future.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	planned for AMP8 including sharing consumption data from the meters with customers, potentially through the existing app or a portal . Given the water supply deficits that Yorkshire Water must address to meet the needs of customers and the environment we believe that the government should allow Yorkshire Water to progress compulsory metering with charging in areas of deficit.	
Waterwise	We are pleased to see that Yorkshire Water recognises the potential contributions to demand reduction from government policies such as water labelling of products and have included this in the plan. We are asking all companies to include a budget in their final plans to support/promote the roll-out of water labelling in AMP8 helping to explain to their customers why it is important and how they can use the label. The trial of an incentive scheme could also be considered. There are further opportunities to secure additional savings through more ambitious policy-led solutions with regards to new build development and retrofit set out in the Environment Improvement Plan (p117-118) and we value Yorkshire Water's ongoing work with Waterwise to advocate for more supportive policies.	We have included an enhancement initiative for water efficiency communication during AMP8 which can include some budget to assist with the promotion of water labelling to help Yorkshire Water customers understand the step change in labelling on water based products and how they can support the roll out of these products to reduce their household water consumption.
Waterwise	The dWRMP24 plan is weak in terms of both the understanding of future non-household PWS needs and any options or plans to reduce NHH water demand. This is a major omission especially in light of the government's Environment Act target (which includes NHH demand reduction) and Ofwat's planned performance commitment (which also includes NHH demand reduction). It is	Our approach on water efficiency will be collaborative and we aim to strike a fair balance between innovation and consistency. We are including a Smart Meter Programme in our plans. We are considering detailed options on NHH water efficiency which will be assessed, prioritised and the detail will be provided in the demand section of the final WRMP.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	acknowledged as a gap in the draft plan (and those of other water companies will need to be addressed in the final plan.	
Waterwise	We are pleased to see the company considering how its developer incentives can be refreshed to help minimise the water demand footprint of new development and Thames Water have a good existing example of this (page 9). We believe that new developments in any area with a water supply deficit and where the companies' abstraction licences are being capped or reduced to protect the environment, should be water demand neutral….in much the same way as regulators require new developments in flood prone areas to be flood neutral. This could be achieved through proactive collaborative work with planners and developers at a WRZ or catchment level in these sensitive areas	Thank you for your comments and support which have been noted. Additionally, to help minimising the water demand footprint new developments all have smart meters as standard to aid in water efficiency.
Waterwise	At Waterwise, we're committed to driving equity and preventing discrimination at work and in the work we do. A great deal of our impact is delivered through challenging others through consultations such as this to ensure equity, diversity and inclusion has been considered in all policy and planning decisions. We encourage as you develop the final plan to consider the impacts on social wellbeing and how you will understand impacts of decisions, including in the long-term following trade-offs, on the diverse members of the Yorkshire Water customer base	Thank you for your comments which have been noted.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
Water Resources West	**Collaborative Working between Water Resources West and Yorkshire Water** We wish to thank Yorkshire Water for working collaboratively with us as part of Water Resources North (WReN), through the Regional Coordination Group and the reconciliation process. The publication of the draft plans is a substantial achievement for regional groups and water companies alike. Much work has gone into the draft plans, which required close collaboration between water companies in both WRW and WReN regions through two rounds of reconciliation in 2021 and again in 2022. We want this close collaboration to continue through the next year as we develop our final regional plans and beyond. Together we have an opportunity to build on the lessons learned so far through the process and implement these to improve our approach in future planning rounds. We therefore encourage Yorkshire Water to continue working collaboratively with WRW via existing links into Severn Trent Water	Noted, and likewise we welcome the collaborative approach to forward planning taken by Water Resources West and other planning partners/stakeholders.
Water Resources West	**Transfers between WRW and Yorkshire Water** The regulatory timetable for producing the final plans is relatively tight, especially given that a third round of reconciliation between regions must also be accommodated. Both our draft regional plans (and company level WRMPs for Yorkshire Water and Severn Trent	We have continued to work closely with STW and WRW (through WReN) to ensure that rdWRMP and Regional Plans remain as aligned as possible, including participating in the third reconciliation exercise which is now completed.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	Water) include the cessation of the existing Derwent Valley transfer in 2035, with a decision point in 2030. You have therefore included an adaptive pathway in your WRMP which sets out the options needed to secure the resilience of the Yorkshire Grid zone on the basis of this transfer ceasing. Assuming the need for and feasibility of options remains similar to the second reconciliation, the position regarding the cessation of the current bulk water export from Severn Trent to Yorkshire Water is likely to remain unchanged. Only a light-touch reconciliation exercise will be required between our two regions. This will seek to reconfirm the position on the transfer and ensure a consistent narrative on this transfer is included in the final versions of both regional plans and company WRMPs. WRW is engaging with WReN, Yorkshire Water and Severn Trent to establish a mutually agreeable timeframe to conduct the third reconciliation exercise.	
Water Resources West	In addition, Severn Trent Water is preparing the Gate 2 submission for the Upper Derwent Valley Reservoir Expansion SRO, which is currently scheduled for April 2023. WRW remains committed to working with Yorkshire Water to progress the development of the SRO for the mutual supply resilience benefits it could bring to both Severn Trent and Yorkshire water and by extension, our two regions.	Noted, and we are continuing to work closely with STW on the Gate 2 submission for UDVRE SRO, including the Yorkshire Water backfill option.
Water Resources West	WRW welcomes the collaborative working we have had with Yorkshire Water so far and the reflection of that in Yorkshire Water's draft regional plan. We are committed to the continuation of the collaborative	Noted, and likewise we remain committed to continuing a collaborative approach up to and beyond final plans.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	working for the final regional plans, WRMPs, RAPID gate submissions and beyond. We expect that Yorkshire Water will make a similar commitment.	
Individual	"I wish to comment on part of a single paragraph. The paragraph is on page 60 of the draft technical document in a section about Levels of Service. It is as follows. The deployable output of the East SWZ is currently limited by the capacity of the water treatment works. However, if restrictions were required in the Grid SWZ, we would consider including the East SWZ. This is because during periods of reduced resources, we would want to communicate to all of our customers the collective need to preserve water stocks." "This paragraph is significantly different from the equivalent paragraph in the 2019 plan in two respects. - In 2019 they say they 'intend to'. In the draft they say they 'would consider'. - No explanation for the policy is given in 2019. An explanation sentence is added in the 2024 draft." It is clear from the wording of the 2024 paragraph that YW still consider it acceptable to impose a TUB on the East SWZ when they have no shortage of water for distribution in that area. However it is also clear that they no longer consider the explanation they gave me for this policy to be sufficient. As the draft was being written about the same time they sent me their justification, this is surprising. The 2019 paragraph had the benefit of clarity. It was clear what the trigger was for a TUB in the East SWZ (even if I disagreed with this). This is lost in the 2024 draft. The term 'would consider' raises the question	We have noted the comments on the appropriateness of including the Whitby area in TUBs when we impose TUBs in the rest of the region. We will ensure the wording in our revised draft WRMP clarifies the issue and will discuss options with our regulators. We will also update our analyses of river flows to improve our understanding of likley environmental and supply risks for the East SWZ in the light of the 2022 drought.

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	of what would YW consider in making the decision. I can see no reason why they could not clarify this in this document. Without this YW would be open to accusations that they want to give the impression of making a change while actually having no intention of doing so. After considering an unknown something they would carry on and impose a TUB on the East SWZ in similar circumstances to 2022. The inclusion of an explanation for the policy is welcome. However it is so general as to be uninformative. It does not seem to make sense. Why would a desire 'to communicate to all of our customers the collective need to preserve water stocks' explain to anyone why YW was imposing a TUB on the East SWZ when it did not have a shortage of water? Furthermore (unlike the Q&A answer) it is not consistent with the policy justification YW gave me in response to my enquiry. An explanation is clearly needed given the bizarre nature of the policy, and this should be clear and complete, so anyone reading this public domain document can understand it The experience of the TUB in 2022 as described above highlighted the shortcomings of the paragraph in the 2019 WRMP. These include the lack of a convincing justification and questionable legality. East SWZ customers were asked to spend time making water savings which just flowed into the sea. The 2024 draft paragraph has the same shortcomings. In addition it raises further issues as outlined above. It is clearly not acceptable in its current form. All these issues could be overcome if the paragraph was redrafted to say that a TUB would only be	

Stakeholder	Stakeholder comment	Yorkshire Water response to comment
	implemented in the East SWZ if there was a serious shortage of water in that zone. No explanation would be needed as this would make sense to any reader. YW could be open in their communications on this issue confident that they would have the support of their customer base.	