South Staffs Water

South Staffs Water

Draft Water Resources Management Plan 2024

– Statement of Response

Securing your water future

Contents

1. Introduction to our statement of response

Summary

Every water company in England and Wales must produce a Water Resources Management Plan every 5 years. This plan looks at the predictions for water demand over the next 25 years, and what water supply is available to meet this demand. It then details how it will ensure it meets this demand through a range of potential demand management options and new supply options.

We produced our draft WRMP24 and submitted it to the Environment Agency in October 2022. Following a review, we were given permission by Defra to publish this plan and have sought public consultation on this over a period of 14 weeks.

The statement of response details the feedback received and our response to it. In some cases, this will have led to a change or update in our plan, or we will have provided more evidence or clarification in the detail of the plan.

We submit a revised draft WRMP at the same time as this statement of response so that it is clear what impact any changes have had on the plan and will enable more detail to be shared.

Following a review of the statement of response by the Environment Agency and Defra, in December 2023 Defra requested further information and some additional builds on some of our statement of response activities. In conjunction with this, the Environment Agency have provided some recommendations to improve the quality of our revised draft WRMP. The Defra information requests are outlined in section 4.16 with the Environment Agency recommendations detailed in section 4.17; these are new additions to this statement response, made in January 2024.

1.1 Public consultation on our draft water resources management plan

On 3rd October we submitted our draft Water Resources Management Plan 2024 (WRMP) to the Environment Agency. The Water Act 2003 states that companies must publish their draft plan within 30 days of notification that Defra is not proposing to give any direction (under section 37B(10) of the Water Act 2003) to amend the plan on the grounds of national security. We received this notification from Defra on 9th November 2022.

We published our plan on 15th November on our website and notified key stakeholders (as specified in the WRPG) of the consultation period, directing them to the website and advising that a paper copy of the plan is available if required. These stakeholders included:

- the SoS;
- the Environment Agency;
- Ofwat;
- Regional Development Agencies within our area of supply;
- Regional Assemblies within our area of supply;
- local authorities within our area of supply;
- Natural England;
- the Historic Buildings and Monuments Commission;
- Canal and River Trust;
- Severn Trent Water; and
- CCWater.

Our draft plan was out for consultation for 14 weeks, and consultation closed at midday on Tuesday 21st February 2023.

Throughout the consultation period we answered various queries from both the Environment Agency and Ofwat. In addition, we scheduled two stakeholder engagement webinars designed to share the detail of our WRMP with stakeholders in our area. However, both events were cancelled due to lack of interest.

1.2 What is a statement of response?

This statement of response shows questions or clarifications that our stakeholders have asked us and our response to these. In many cases we have responded to the point entirely within this document but, in other cases, we have addressed the point or made the suggested change in our revised draft Water Resources Management Plan (rdWRMP) and highlighted the location of this updated in this statement of response document. In addition, we have:

- Updated our demand profiles to take into account the post Covid-19 impact and provide the most up to date view.
- Updated our headroom profiles accordingly.
- Made changes to our plan based on customer and stakeholder priorities identified as part of our PR24 programme. For example, we have reviewed our metering programme.

Where we have addressed a point or made a change in our rdWRMP we have referred to this in our statement of response and signposted where in the rdWRMP we have made the appropriate changes.

At the April 2023 Board meeting, our Board of Directors have reviewed and endorsed our proposed Statement of Response and rdWRMP.

1.3 The process of developing our statement of response

The total time between publication of the draft WRMP for consultation and submission of the statement of response is 26 weeks. Our consultation period ran for 14 weeks and therefore our statement of response was due for submission 12 weeks later on 17th May 2023.

Although not mandatory, we will also be submitting a revised draft WRMP at the same time as our statement of response. This is because we believe it is the clearest way to show the changes we have made to our plan as a result of the feedback we have received through consultation. This means that our statement of response, in some areas, provide a high level overview of the change and will direct readers to a certain section or chapter of the revised draft WRMP to see the detailed response.

We have held review sessions with the Environment Agency, Ofwat and the Canal and River Trust during the development of the statement of response to ensure all feedback points are properly understood and to share our proposed approach to these points.

We have addressed each point individually in our statement of response. We have grouped the feedback by responding stakeholder organisation (alphabetically) below in order to make it easier for those who responded to identify the actions we have taken that directly relate to their feedback. We have also included, in chapter 2, an overview of the feedback under the key themes we identified to provide an overview of the resulting changes.

1.4 Consultation Responses

We received responses from the following organisations:

- Arquiva
- Canal & River Trust
- Consumer Council for Water
- Environment Agency
- Everflow
- Historic England
- MOSL
- National Trust
- Natural England
- Ofwat
- Strategic Panel & Committees
- Water Resources West
- Waterscan
- Waterwise

Following the closure of consultation, a letter was received from Defra and Rebecca Pow MP to all water companies referencing smart metering, and we have included this in our statement of response too.

1.5 Timetable

We will submit our statement of response on 17th May 2023 and publish this on our website. In addition, we will also submit our revised draft WRMP at this time.

We will publish our final WRMP on our website once the Secretary of State has authorised us to do so. Copies will also be made available at our head office.

2. Key Feedback themes

Summary

The consultation feedback can be grouped into key themes:

- Supply forecasting
- Demand forecasting
- Demand management
- Environment
- Options
- Best value and alternative plans
- General

In this chapter we share a high level overview of the feedback received within each of these key areas and the impact this has had on our plan.

2.1 Supply Forecasting

We received a variety of feedback points on our supply forecasting i.e. the way in which we have determined how much water we will have available for supply. It is critical that our supply forecast is as accurate as possible to ensure that our plan does not under- or over-estimate the future investment needs to ensure we have water available that we need. Some of the points raised required us to provide more detail or clarification, whilst others have led us to review certain elements of our supply forecast and update this with the most recent and accurate information.

One key point relates to our baseline deployable output (DO). The data tables for WRMP24 assess the supply demand balance in a 1 in 500 year drought situation, and so we have used our Aquator modelling to assess the available DO in this scenario, which equates to level 4 restrictions in our system. This is the DO we used in our draft WRMP data tables. However, the modelling also confirmed that our system is constrained at level 2 rather than level 4, and the Environment Agency highlighted that we should use this value in our data tables instead. We agree and have reviewed the modelling outputs and believe our baseline DO is therefore reduced by an additional 11.5 Ml/d.

We also reviewed the savings we had included in the data tables compared to our drought plan and those included in various modelling runs we undertook in Aquator. As a result, we have updated our savings through TUBs and NEUBs to bring these in line with both the drought plan and our Aquator modelling. This has led to an increase of 9 Ml/d in the demand savings from these combined. We have also updated our sustainability reductions in line 7.2BL of the table following agreement of the specific

licence caps with the local Environment Agency team since the draft plan publication, and we describe this in more detail in the environmental section below (2.4).

In our draft WRMP data tables, there are some areas which show a difference between the WRMP19 final plan 2024-25 supply demand balance position, and our WRMP24 starting point. In order to explain these differences, we have included section 6.9 in our plan. The most substantial change to our supply demand balance is due to the changes to the planning tables; at WRMP19 our tables represented a dry year annual average scenario, but at WRMP24 they represent a 1 in 500 year drought event. As such, our baseline DO is significantly impacted in this scenario, and reduces by circa 50 Ml/d.

We have also updated differences. These relate to demand management activities where our WRMP24 2025 position was not the same as our AMP7 outturn position that we have agreed in our 2019 business plan and as per our performance commitments. We have since updated the position for both leakage and PCC so that they reflect our AMP7 performance commitments.

We received feedback that our treatment works losses are high relative to others across the industry. As a result, we have reviewed our forecast and updated it. As we have progressed with our upgrade works at both of our major treatment works in AMP7, we now have a clearer view of the impact these process changes will have. This has led to a reduction in our treatment works losses forecast by over 8.5 Ml/d (29% reduction).

We also received queries around our selection of outage allowance and target headroom profile. We have provided more detail on this in sections 6.5 and 7 in the main plan respectively.

Whilst the above has led to some updates to our overall supply forecast, these have not led to a significant change in our overall water available for use (WAFU) as the various increases and decreases of values have balanced out overall. As such, this has not had a significant impact on our overall supply demand balance.

2.2 Demand Forecasting

As part of our plan, we forecast the future demand for water from both households and non-households. As with supply forecasting, it is important that we forecast this as accurately as possible so that we do not under or over-estimate any investment that may be needed in order to meet future demands.

One area raised in our feedback relates to our non-household consumption forecast. In 2017, non-household market opening means that retailers own the relationship with business and commercial properties in our region now. As a result, we are more removed from the detailed nature of these businesses, which in turn informs how they use water and therefore their future needs. We are currently unable to robustly classify a large proportion of our non-household customers which leads to some estimation in the data we're forecasting. We have, and continue to work with retailers in our area to try and define as many of these non-households as possible; however in many cases the retailer also does not have this detailed information. Occupier changes means information is out of date or not

collected, and maintaining and updating this requires close working between retailers, the non-household population and water companies.

However, the way that non-household forecasts are built does not take into account how much the individual businesses consume, but only what the total effect is. We split by sectors, but this is relatively coarse in nature (Agriculture, Service driven by population, Services driven by the economy, Non-services, and unclassified). Therefore, there is currently an industry project led by Anglian Water, involving MOSL, other water companies, and retailers. The aim is to identify a scheme for NHH properties that is relevant for water consumption and water saving.

We also received a query regarding our baseline water efficiency work i.e., what work we currently do to reduce consumption for non-households and households. We have included detail on this in section 10.1.3 and 10.1.4 respectively in the main plan.

2.3 Environment

We included sustainability reductions in our plan in AMP8 following our investigations relating to “no deterioration” in AMP7. These licence caps are designed to prevent any additional growth in the area being supplied through increased abstraction from our existing groundwater sources. Since submission of the draft WRMP, we have now agreed these licence changes with the local Environment Agency team, and we have included the details of these caps, the locations and the catchment impacted in section 6.10 of the plan. Following this, we have now been able to model the impact these caps will have on our baseline DO.

These licence caps do not alter either our peak licences or our annual averages. Therefore there is no impact to our baseline DO in a dry year, and indeed the 1 in 500 year drought scenario represented in the planning tables. We do however have a 15 year condition on these licences now, which means we have to ensure we meet a rolling 15 year abstraction level. We have modelled this impact to provide a normal year DO, which we also detail in section 6.10. We also appreciate that if we do utilise our peak licences in a dry year, or 1 in 500 drought scenario, we will need to reduce abstraction in following years in order to ensure we achieve the 15 year licence condition, and will manage this through our proactive monitoring and regulation of our licences. As this increase needs to be recovered over subsequent years, we have applied this 15 year condition as our DO sustainability every year in the planning tables to ensure the long term impact is correctly reflected

In our draft WRMP, we planned to meet the BAU+ environmental destination scenario by 2050. At this stage, there is still a high level of uncertainty regarding the true scale of the abstraction reductions required and we have planned to undertake investigations during AMP8 to help clarify these and any other actions that will be required in order to support this delivery. Due to the uncertainty, we had included a linear glide path for these reductions from 2030 to 2050. We received feedback during consultation around this glide path, asking for further justification as to why this is the optimum path, how reductions would be prioritised and whether the reductions could be completed sooner than 2050 based on the positive supply demand balance in the South Staffs area.

We have reviewed this profile in light of this feedback and made several changes. We have brought forward the delivery of these abstraction reductions in line with our supply demand balance. We have ensure we maintain a healthy supply demand balance through the planning period, but now we plan to deliver the necessary abstraction reduction by 2040. We have also provided more detail in section 6.11 regarding our prioritisation of these abstraction reductions. We will prioritise based on the following criteria:

- Those reductions that would benefit designated sites e.g. SSSIs.
- Reasons for Not Achieving Good Status (RNAG) – where this is impacted by abstraction.
- Priority catchment – agreed at Water Resources West as the Worcester Middle Severn, based on extensive data gathering of all of the current issues, deficits and opportunities.
- Those reductions that would remove the need for augmentation schemes.

We will also balance these reductions to ensure that they do not drive any temporary short term supply side investment that does not deliver best value. An example of this is that we will undertake reductions across all of our catchments rather than undertake all of the abstraction reductions in our priority catchment of Worcester Middle Severn first. This is because the scale of the proposed reductions means that we would create a deficit in this zone for a short period of time until the demand management activity (e.g. leakage and consumption reductions) reduce the demand in line with these reductions. As such, we would need to build additional storage in the zone and an interconnector pipe, which would be needed for less than 5 years. By reducing abstraction across all of our catchments in a phased approach, although still prioritising based on the above elements listed above, this means we can deliver the overall environmental destination quicker and without temporary infrastructure investment.

Natural England stated that the BAU+ scenario should be the minimum that we plan for and would strongly advise us to aim for the enhanced scenario. However, our preferred plan still looks to deliver the BAU+ scenario. This is due to the high level of uncertainty in the scale of the abstraction reductions required. The investigations we undertook in AMP7, as part of our no deterioration assessments to determine the sustainability reductions we will make in AMP8, showed deficits in waterbody flows that were of a similar scale to the BAU+ scenario reductions. As a result, we believe this is the more likely scenario at this stage, although this will of course be reviewed in WRMP29 following our AMP8 investigations. We have also included a scenario in section 10.6 of the plan that shows the enhanced scenario as an adaptive pathway in our plan, should our AMP8 investigations show this is the required level of reduction. Our supply demand balance enables us to meet the enhanced scenario without the need for any additional supply side options within the planning period, and we would be able to deliver this by 2050.

In our consultation feedback, we received various comments relating to our environmental assessments. For both the SEA and NCA, the scope was developed in 2021 and we undertook a consultation process on this at the time to ensure all key stakeholders had the opportunity to input to this. We have developed these assessments based on that scope, and so any points that relate to additional requirements outside this will not be undertaken or updated as part of this process.

We have made some changes to our SEA and NCA based on comments received to ensure methodology descriptions are sufficient detailed, that the links between the plan objectives and these key documents are aligned, and to signpost information more clearly.

Climate change is a clear focus for the plan, and we have assessed the impacts of this on a number of areas:

- Raw water availability
- Raw water quality
- Water demand
- Environmental needs

We have included more information on these elements throughout the plan, and particularly in section 6.6 of our plan following feedback stating it wasn't clear how we had assessed some of these areas.

In our original submission, we had not adequately met direction 3(d) regarding to the inclusion of an assessment of the greenhouse gas emissions from both our current operations and total emission forecast for future operations across the plan period. We have now included this detail in section 10.10 of the plan. Here we show the benefit to our carbon emissions through the delivery of our plan, as our demand management measures reduce our distribution input over the lifetime of the plan by over 63 Ml/d. As a result, we reduce our chemical usage and pumping, as well as electricity costs, which are our major contributors to operational carbon. Overall, our plan sees a reduction in operational carbon of 8,137 tonnes from our end of AMP7 projected position. We have also included details of our journey to net zero in our plan in the same section.

2.4 Options

The feedback we received regarding our options mostly related to the quantity of supply and demand options we have as feasible options in our plan. Having too few options could mean that there is limited choice which means it is difficult to be confident that a proposed plan truly is the best value plan available.

At the pre-consultation stage of our draft WRMP development, feedback from the Environment Agency meant that all of our groundwater options could no longer be classed as feasible due to groundwater availability in our catchments. However, through engagement with third parties, we believe we have a wide range of different supply option types available for selection in our plan. These include:

- Reservoir enlargement
- New reservoir
- New surface water supply
- Water transfers from other water companies
- Water transfers from third parties
- Licence trades
- Potable water transfers

Our preferred plan does not require any supply options in the planning period; however, we believe having a wide range of supply options is critical and we are continually looking for new options that we can include at future WRMPs.

In our original data tables in our draft plan submission, we only included the preferred demand side options. However, there were multiple other options identified and assessed as feasible options for leakage as well as PCC and non-household consumption reduction. These have now been included in the updated data tables submitted with this statement of response, and more detail describing these options has been included in the narrative in chapter 9.5.

In addition, we have updated the size and costs of one of our third party transfer options following feedback from the Canal & River Trust regarding the potential yield. This is reflected in the data tables. We have also provided some additional clarity around our other third party options to better articulate the option detail and provide more assurance around their feasibility.

2.5 Best Value and alternative plans

It is important that we are able to demonstrate that our plan represents best value. A best value plan is one that considers factors alongside economic cost and seeks to achieve an outcome that increases the overall benefit to customers, the wider environment and overall society.

Our draft WRMP represented our best value plan. This is also our least cost plan. As our preferred plan is delivered through demand management and the achievement of the national targets for household and non-household consumption, as well as leakage, there are limited options for developing an alternative programme. We cover this is more detail in section 10.8 in the revised draft WRMP.

Some changes to the activities may well make a certain AMP period cheaper, particularly at the start of the planning horizon. This could be utilised if there are significant cost challenges elsewhere in the business e.g. large scale investment required for water quality that would lead to a significant and unacceptable bill increase for a period of time. Our customers have told us that, if bills must increase, they do so steadily in order to help them manage the increases.

Our best value plan for the draft WRMP represented a linear profile for achieving leakage, which aligned with our customer preferences for affordability. Since the submission of the draft WRMP, we have been undertaking more work on the development of our PR24 business plan. Here we also develop the rest of the business needs for 2025 to 2030. With a view of these investment needs, we can understand the overall impact to customers and identify whether we need to impose any additional constraints on our decision making around the demand management trajectory to align with this.

We have seen this be the case for metering. Our draft WRMP states we will deliver universal metering to all customers by 2035. However, our PR24 business plan also includes our Cambridge Water operating area, and there are some significant enhancement costs included in that WRMP to deliver short term water resource security. These two plans combined form a large proportion of the enhancement work within our PR24 plan, and therefore we have needed to make decisions on the pace of delivery of universal metering in the South Staffs region, whilst still ensuring we are able to achieve the 110 l/h/d

interim targets. We discuss these constraints in more detail in section 9.8, and the details of the overall plan impact is shown in section 10 where we share our updated demand management costs and profiles.

As we have updated our demand side activities for the revised draft WRMP, this has led to the cost for these activities being updated, particularly for the delivery of the water efficiency and metering elements. In order to put that into context, we have included a view of the bill impact in the revised draft WRMP in a new section 10.12. Here we show that that the bill impact for customers equates to £5.24 in AMP8 and £8.91 by 2050.

We have also included more detail in section 10.6 of the revised draft WRMP to demonstrate why our preferred programme represents the most likely scenario, how this relates to our core pathway. We also cover why we believe this represents low regrets investment to meet future uncertainties and how it allows additional flexibility in the future.

In order to demonstrate that our plan is robust and resilient to uncertainty, we test it against a range of scenarios. We received feedback that more information on the outputs of this scenario testing would help clearly demonstrate the impact these scenarios would have on deliver, and particularly on cost. We have included additional information in section 10.6 of the revised draft WRMP that articulates these scenarios and the outputs of these.

One element that is important in the scenario testing, due to the level of uncertainty associated with it and the scale of the potential impact on the available supply, is the environmental destination. The low environmental destination scenario would be BAU+ with those reductions that have a high level of uncertainty associated with them removed, as agreed locally with Environment Agency teams. Through our engagement and discussions with these teams, they have confirmed that our low scenario should be the same as BAU+. As such as low environmental destination scenario is the same for both our core pathway and preferred plan. While the scenarios are designed to understand, in part, changes to the cost of programmes, this is not of relevance for South Staffs for environmental destination. This is because we are able to achieve the BAU+ abstraction reductions without the need for additional supply side options, and through achieving the demand management targets outlined in Government plans. As such, a lower environmental destination does not lead to a lower cost plan.

These scenarios highlight where we may need to take an alternative pathway if we are to ensure we continue to maintain a positive supply demand balance. We have included a new chapter in the revised draft WRMP, section 10.7, that takes the outputs from the scenario testing and identifies any alternative pathways that are required alongside our preferred plan should we need to adapt in the future. We show the impact if our demand management activities only delivered 50% of the demand reduction we are forecasting, and also a pathway that would be taken should our AMP8 environmental destination WINEP investigations show that the Enhanced scenario level is reductions is in fact required. In this section, we also look at how we'll monitor against our plan and the trigger points for these adaptive pathways.

Ofwat shared concerns regarding the unit cost of our demand management programme compared to other water companies, and the need to therefore better demonstrate that our plan truly is best value. For our draft WRMP, we assumed that metering delivered no direct water saving benefits. Instead, we

viewed it as an enabler, allowing other mechanisms to provide more efficient and cost effective leakage reduction and water efficiency activity e.g. innovative tariffs. Following feedback from Ofwat and the Environment Agency, we have updated this for the revised draft WRMP. We have engaged with other companies who have undertaken extensive smart metering campaigns in AMP7 and taken their detailed evidence of the savings identified. As such we have updated our planning assumptions so that a household meter delivers 13% benefit upon installation. This means our costs for delivering water efficiency activities have reduced as we are delivering some of these benefits through the metering campaign.

In addition, through extensive planning and engagement with our supply chain, we have updated our metering costs and reduced these in the revised draft WRMP. We have also reviewed our leakage programme, following the update of our demand forecast and taking onboard feedback regarding the high unit cost for this area, and have updated these costs also.

As a result, the overall cost of the programme has reduced to £113.84m. We provide the detail behind the specific changes in section 10.1 of the revised draft WRMP, and the data tables have also been updated to reflect this.

Some of our consultation feedback highlighted that there were gaps in some of the data in the planning tables that means it wasn't always possible to understand the costs and benefits of options and programmes. We have updated these and they have been submitted alongside this statement of response. We have also been able to fill in gaps that were left due to timing – some elements of the tables relate to the PR24 business plan, and at draft submission stage it was too early to have these plans fully formulated. These are now updated and we have also updated costs of options and programmes where we have reviewed and updated these.

We have demonstrated, in a new section 9.10, how we believe our plan aligns with Ofwat's public value principles and ensures we deliver better social and environmental outcomes as a result.

2.6 Demand Management

Our preferred plan relies on demand management in order to meet the water needs of our customers and the environment over the planning period to 2050. As a result, it is important to clearly articulate the detail behind these plans and we received feedback during consultation that we needed to provide more information in this area, including on how we will deliver these activities, how we will monitor our performance and what we will do if we are off-track. We have provided additional detail covering these areas in section 10.2 in the plan. This details:

- Our approach to monitoring performance – this includes reporting via our annual review of our WRMP and delivery of our performance commitments for certain elements that will be incentivise out performance and penalise for failed delivery.
- What we will do if we're off track – alternative activities and trigger points for initialising these.
- Other activities to support – our engagement and participation in the Water UK water efficiency roadmap and leakage roadmaps, innovative trials and third party engagement.

In our draft plan, we did not include for uncertainty in the delivery of demand side options in our target headroom calculation headroom. As our preferred plan depends wholly on demand side options, it is important that any uncertainty is included. Therefore, we have undertaken an assessment for headroom component D4 (uncertainty associated with demand side options) and included this in our target headroom calculation, which has also been updated in the tables.

We received many comments relating to smart metering. Many consultees are supportive of universal metering proposals, emphasising the need to ensure these are delivered as quickly as possible in order to recognise early benefits. We were asked to demonstrate the different profiles we had explored for metering, explain further why we have proposed the programme we have and how that represents best value. Recognising the ambitious rollout will have an impact on our customers, we were also asked to provide more information on how we propose to support our customers through this transition, particularly those who will see a cost increase to their bill as a result.

At the draft plan submission stage, we were still working through the details of the types of support packages we could offer to our customers as we rollout universal metering. Since then we have further developed these and we have now included section 10.1.2.3 in the revised draft plan which shares the detail behind these proposals. We are still working on the detail behind some of these schemes, and this list is not exhaustive at this stage as we continue to develop our plans in this area prior to our business plan submission in autumn 2023. Elements we have included are:

- We aim to have a maximum of 3% of our customers in water poverty by 2035
- We will expand our existing Assure programme to support nearly twice as many customers in AMP8 as we are supporting in AMP7
- We will provide a 2 year grace period for meter rollout. Customers will have 2 years from the date of meter installation before we switch to metered billing so we can provide them with regular consumption and proposed bill data. This will enable them to understand the impacts and plan for the potential changes were required.

Following feedback from both the Environment Agency and Ofwat, we have reviewed our initial approach that installing a smart meter does not on its own deliver any direct water saving benefit. In our draft plan, we assumed it worked as an enabler to allow delivery of other water saving activities e.g. innovative tariffs. However, we have since reviewed the findings from others in the industry who have undertaken extensive smart metering campaigns in AMP7 to identify the typical savings they have observed from installation of smart meters. As a result, we are now including a benefit where we install a meter into a household that previously was unmetered which equates to a 13% reduction in consumption per person. This has also been updated in the data tables.

This change means that metering now delivers a proportion of our proposed PCC reduction programme. As a result, we have reviewed the water efficiency proposed options and the scale to which they will be needed in the early AMPs of the project which means the overall cost of the PCC reduction programme has reduced.

This answers another query we received which highlighted concern with the cost of our demand management programme compared to other companies. As we assumed no direct benefits from metering, we needed additional water efficiency activities to achieve our targets. By adopting evidence

from other companies who have undertaken detailed research into the savings meters provide, we can reduce the additional water efficiency activities we need to undertake and therefore reduce the costs of the demand programme more in line with other companies.

We have reviewed our metering programme since our draft plan submission as we have been developing our business plan submission for AMP8. We have reviewed different delivery profiles and timing, and have shown these scenarios, the costs and benefits of each in section 10.1.2.1. Here we provide the detail as to why we have chosen to progress with our particular metering strategy.

Our universal metering programme applies to both household and non-household customers. We intend to fit smart meters to our entire non-household population over the next ten years. We will undertake this as a joint programme of work with the household rollout as many of these businesses are small local businesses e.g. hairdressers, shops etc. It is more economical to combine the programmes so that we can target installation geographically. This also means our communication can be more streamlined and it is clearer for all customers where sit within our plans.

At draft plan stage, we (and our sister company Cambridge Water) were the only companies to include a reduction to non-household consumption in our plan. Our plan achieved the proposed 9% reduction which was still being consulted on by the Government at the time of submission. With the release of the Environment Improvement Plan 2023 in January this year, this target was confirmed. As a result, we have increased our non-household water efficiency activity in our revised plan in order to ensure we deliver the new 2050 target of 15% reduction in non-household consumption. We are proposing to work with retailers to enable additional water efficiency services such as water efficiency audits, advice and incentives, as well as data reviews to enable targeted interventions to save water both through consumption and leakage.

Since the submission of the draft plan, we have seen the publication of the Environment Act targets, the Environmental Improvement Plan 2023 and the Government Plan for Water. Our draft plan already included most of these targets, but the Environmental Improvement Plan (further supported in the Plan for Water) included new interim demand management targets. We have updated our profiles for demand management to ensure that we meet these interim and final targets for leakage, household and non-household consumption and demand per capita. We believe our plan aligns with the objectives in these plans.

The Plan for Water highlights the £400m of infrastructure investment that has been accelerated by Defra since the submission of the draft WRMP. We submitted a bid to accelerate some of our proposed investment identified in our draft WRMP and were successful in being awarded funding to accelerate both our household and non-household metering programmes. This enables us to start these programmes earlier than 2025 and therefore deliver the associated benefits sooner. We have included more detail on this in section 10.1.2.2 of the plan.

2.7 General

We received some helpful feedback on the format and accessibility of our document and have ensured we have clearly explained any technical terms in the revised draft WRMP as well as removed acronyms

where possible. We will also be updating our non-technical summary to be more visual and include more infographics where possible prior to publication of the final plan.

One area of concern highlighted related to the quality of areas of our data table submission. We have worked closely with the Environment Agency since to submission to resolve any outstanding errors. In addition, the updated Water Resource Planning guidelines provided some additional clarity and detail regarding certain elements of the data tables in order to remove and reduce errors, and we have followed this updated guidance when updating the data tables for this revise draft plan submission. We have also added an additional data assurance step into our review, so there is now another internal review step prior to submission to identify any anomalies or errors.

As stated above, in mid-March we received the updated water resource planning guidelines (WRPG). We have followed these revised guidelines in developing our revised draft WRMP, and new areas include:

- Inclusion of any Defra accelerated spend approved and the impact on the plan.
- Development of an appendix detailing the 2022 drought and any implications on the plan.
- Detailing our contribution to the Environment Act 2021 water demand target.
- Providing clear and robust justification for any significant differences to the supply demand balance between the beginning of the WRMP24 planning period and the final plan 2024-25 figure.

3. Commonality across WRW

The below table outlines how we have ensured commonality across WRW whilst developing our statement of response and revised draft WRMP.

Table 1 Commonality across WRW

Common statement for WRW and its core member companies

	WRW and core members position on commonality
All members have continued to work collaboratively to develop their WRMP in a regional context and their revised WRMPs are consistent with the regional Statement of Response.	
Environmental destination (ED)	**Wales** WRW has continued to develop the plan for Wales including further meetings with NRW and stakeholders. Each of our member companies with operations in Wales have committed to investigations and schemes in their 2025-30 National Environment Programme (NEP) relating to Environmental Destination in Wales. There are also opportunities identified from the development of new water resource options. **England** Early in the planning period the latest position agreed with the EA on licence capping, to protect the environment from deterioration due to sustained increases in abstraction, has been included for their preferred plans. All members in England are using the latest best estimate of the 2050 BAU+ locally verified scenario (referred to as BAU+ in the plan). This scenario uses existing policy and regulatory approaches now and into the future. It also includes applying flow targets required for European designated riverine sites by 2050 at the latest. Locally verified refers to the analysis that the regional group has done to refine the scenario data developed at national scale by the Environment Agency for the National Framework. This incorporates the discussions held locally with stakeholders and regulators plus work that has already happened or is in progress to ensure the right level of protection and enhancement is being applied. There is a consistent approach across the region with regards to sustainability changes and scenarios. Further scenarios have been developed to evaluate undertaking licence reductions earlier to accelerate the achievement of current regulatory needs and bring resilience to the water environment.
Drought resilience position	All members are planning to achieve 1 in 500-year level of drought resilience by 2039/40, despite Hafren Dyfrdwy and Welsh Water not being required to meet a 1 in 500 level of resilience by 2040.
Demand management policy	All members in England are planning to achieve the government policy objectives, part of the Environmental Improvement Plan, for demand reduction: • 20% reduction in Distribution Input per head of population by 2038

	• Non-household demand reductions of 9% by 2038 and 15% by 2050 • Per Capita Consumption (PCC) reduction to 110 litres/head/day by 2050 and are using the dry year annual average position. All members in England have adopted the leakage reduction targets of 20% by 2027, 30% by 2032, 37% by 2038 and 50% by 2050 (at the latest) from 2017/18 levels. Hafren Dyfrdwy has adopted the leakage target of 50% reduction from 2019/20 baseline levels by 2050, with a leakage reduction target of 10% in AMP8, and 110 litres/head/day PCC target in a dry year by 2050. Welsh Water has adopted the leakage target of 50% reduction from 2017/18 levels by 2050, 110 litres/head/day PCC target in a dry year by 2050 and the non-household reductions of 15% by 2050.
Supply resilience	All members have adopted the intermediate scenario of climate change (RCP 6.0) in their preferred plan. All members have generated regional-level hydrological and climate change datasets, collaborated on extensive water resources model development, and undertook in-depth analysis on outputs. United Utilities, Severn Trent and Welsh Water are proposing investment in new supplies and/or increased network connectivity across WRW from early on in the planning period to further bolster supply resilience. South Staffs and Hafren Dyfrdwy only have demand options selected and therefore are not.
Reconciliation – Scheme selection	All members have worked collaboratively through a reconciliation workstream to ensure the transfer scheme selection aligns across the region and with other regions. The preferred plan transfers are: • 25 Ml/d Vyrnwy raw water from United Utilities to Severn Trent in 2030; • Grand Union Canal transfer from Severn Trent to Affinity Water selected in 2031 at 50 Ml/d, increasing to 100 Ml/d in 2040; • Cessation of the Derwent Valley export from Severn Trent to Yorkshire Water in 2035. The adaptive pathways for the STT have also been aligned with WRSE.

4. Responses to Consultation Feedback

Summary

We have collated the feedback from each organisation set these out in individual sections below in alphabetical order of the organisation.

In some cases, we may provide a high level overview as a response and point the reader to a specific chapter or section within the revised draft WRMP to provide the detail. This will enable readers to understand the full impact and provide a clearer narrative in relation to the rest of the plan.

4.1 Arquiva

Consultation Comment	Response
We encourage South Staffs Water to pursue an ambitious rollout of AMI within the 2025-2030 period, to help ensure the delivery of its benefits to demand reduction are not delayed.	Through discussions with our supply chain, we have identified a programme of delivery that we believe is ambitious yet deliverable. Many water companies are proposing universal metering programmes throughout AMP and AMP9 as part of their WRMPs and we need to acknowledge the impact this will have on the existing market. Our plan has been developed with our delivery partners to ensure that we can meet our level of ambition as well as ensure the programme is deliverable. We propose to utilise both AMR and AMI technology. There are situations where AMI metering does not yet prove to be cost beneficial due to the additional infrastructure costs required e.g. in rural areas. South Staffs Water were successful in our bid for funding to accelerate our universal smart metering rollout programme, and we are starting this in AMP7 now which will accelerate the delivery of our plan.

4.2 Canal and River Trust

Consultation Comment	Response
The Trust had previously offered South Staffs Water two canal transfer options in the development of their WRMP19 and are pleased to see those transfer schemes are still being evaluated as feasible options in their dWRMP24. However, it is unclear why option ID 7.1.2.1 (Third Party Option: Canal & River Trust, Birmingham Blithfield surplus) is stated as 5Ml/d WAFU benefit in their published WRMP24 tables. The Trust believe the raw water transfer yield for this scheme is 15Ml/d and would like to understand this discrepancy.	We appreciate the Trust raising this and we have since had further discussions regarding this option. As a result, we have updated the option in our plan from 5 Ml/d to 15 Ml/d. We have also updated our costs and environmental assessments as a result. We also acknowledge that this option has been offered to multiple companies and regions. As part of the regional reconciliation process, we have taken this into account to ensure that multiple plans do not select this option.

4.3 Consumer Council for Water

Consultation Comment	Response
It is good to see that the Baseline supply / demand balance; Deciding on Future Options and Our Proposed Programme has reflected the evidence and the 'golden threads' arising from customer engagement. However, it may be challenging for South Staffs to be able to deliver all the demand side solutions and ensure a resilient water supply in 2050 without additional supply side input.	We have updated our supply and demand forecasts for the revised draft plan to ensure we are presenting the most up to date accurate information. In our draft plan, we tested a scenario where we our demand management activity only delivers 50% of the savings we have assumed. In this scenario, we were still able to achieve a positive supply demand balance without the need for supply side options. This is still the case for the revised draft plan and we describe this in more detail in section 10.6 of the plan. We have also articulated in section 10.2 our plan for delivering our demand management proposals and how we will monitor our performance. We also outline the steps we will undertake at various trigger points should we find we are behind in our profile.
It is good to see the Non-household challenge addressed and ambition outlined for greater focus on communication with NHH customers following a dip in 'education' since the market opened. We wish to see all wholesalers make demand management an integral part	Our draft WRMP planned to achieve the 9% non-household consumption reduction as outlined in the Environment Act targets – at the time, these targets were only proposed and not confirmed. We planned

of any strategy to address risks to future water supplies and meet Defra's target to reduce water demand. We would like to see greater ambition on how the wholesale company should work with business customers and retailers in the short and long term to reduce demand and increase water efficiency. 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 to set challenging targets, this is not a regulatory measure that can deliver demand reduction by itself. Wholesale companies' plans need to be clearer on how they will manage business demand, especially in areas more at risk of water scarcity. 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.	to achieve this through fitting enhanced meter technology to all our non-household customers between 2025 and 2035. Following the confirmation of this target in the Environment Act in December 2022, we have further enhanced our proposal in this area to ensure we are working closely with retailers to drive behavioural changes and efficiencies in the non-household population, as well as identify and target customer supply side leakage within this population. As a result, our plan will now meet the 15% reduction target by 2050. In fact, our plan exceeds both the 9% and 15% targets. These additional activities are described in section 10.4.1 and include: - Water efficiency audits and reviews - Data reviews of continuous use to identify possible wastage and leakage We have been part of a club engagement project with several other water companies where we have been engaging with retailers to identify how we can best work together to deliver these ambitions. This includes looking at communication and incentivisation, and we will continue to build on this throughout the rest of AMP7.
In discussing the roll out of universal metering (p10), the plan did not address the concerns clearly mentioned in customer research (section 4 of main plan) and in particular the need to provide the re-assurance that support will be provided to the vulnerable, those struggling with affordability and larger households during the transition to and after meter roll-out.	In our draft WRMP we acknowledge the concerns raised by our customers and highlight that we were working through our plan to support customers as part of our PR24 process. We have undertaken further customer research on the potential options and have agreed the following approach: - We aim to have a maximum of 3% of our customers in water poverty by 2035 - We will expand our existing Assure programme to support nearly twice as many customers in AMP8 as we are supporting in AMP7

	- We will provide a 2 year grace period for meter rollout. Customers will have 2 years from the date of meter installation before we switch to metered billing so we can provide them with regular consumption and proposed bill data. This will enable them to understand the impacts and plan for the potential changes were required. We cover this in more detail in section 10.1.2.4.
Given the challenges other water companies have faced in implementing universal metering it would have been useful to see more detail in the plan on how South Staffs will use a behavioural science approach (or other similar innovations) to persuade customers it is the right thing to do. It will also be important to learn from the experience of other companies and to offer both practical and financial support to customers where needed. CCW looks forward to discussing these plans with the company.	As part of our PR24 customer engagement, we discussed with customers the potential options to support those who need it throughout the universal rollout programme. In addition, we undertook multiple sessions with South East Water who have already rolled out universal metering. We have also taken on board the learnings of other companies who have undertaken ambitious metering programmes in AMP7, such as Anglian Water and Thames Water. Through this we learned what worked well, what improvements they would recommend, and customer feedback and preferences throughout the journey. We have included this in our plan for support as detailed in the revised draft WRMP and will build further on this in our PR24 submission. We will continue to share these plans with CCW as we develop our PR24 business plan.
It is notable that the plan outlines the company's long-term ambition to achieve: - 50% reduction in leakage (from 2017/18 levels) by 2050 - 110 l/h/d household consumption by 2050 - 9% reduction in non-household consumption by 2037 We would expect the final plan to make reference to the interim statutory demand targets outlined in DEFRA's Environmental Improvement Plan (EIP) to-	At the time of submission of the draft WRMP in October 2022, the interim targets were not yet in place as they were published in December 2022. In our revised draft WRMP we have updated section 10.1 to show how our WRMP outcomes compare to the Environment Act targets, including the interim positions.

-reduce household water use to 122 litres per person per day (l/p/d); -reduce leakage by 37% (20% by 31 March 2027 and 30% by March 2032); and, -reduce non-household (for example, business) water use by 9% all by 31 March 2038. We would wish to see a glide path showing what level and when reductions in demand are expected to be delivered.	
The plan identifies the main challenges the water company faces, but with regard to climate change the emphasis appears to be on its impact on the environment (and thus the need to reduce existing groundwater supplies) rather than considering its impacts 'in the round'.	Our plan has looked at the impacts of climate change on two key elements of the plan: - Raw water availability (see section 6.6) - Customer demand i.e. how it may impact customer behaviour and water needs (see section 7.1.2) We also include a level of uncertainty associated with climate change in our headroom calculation, acknowledging that climate projections get more uncertain the further into the future they go.
The non-technical summary would benefit from infographics.	We will be updating our non-technical summary for the final plan and will look at how to include more infographics as part of that revision. We also share our customer facing documents with our online forum of customers, H2Online, for feedback and builds to make sure our communications are as user friendly and engaging as possible, and we'll ensure we do this again for this final version.
There is no easily accessible information regarding the likely bill impact of the Plan. Any price increase will be in addition to the bills impacts from other regulatory requirements and investment needs, and should be made clear. A single water affordability scheme is needed to make sure those most in need are protected from higher bills due to increasing environmental investment pressures.	We have included a section in the revised draft WRMP in section 10.11 that details the bill impact of the proposed programme. Overall affordability testing has been undertaken as part of our PR24 customer engagement programme.

4.4 Defra

Consultation Comment	Response
Recognising the significant benefits of smart metering on usage of water including identification of leaks we expect water companies to consider how to rapidly increase installation of meters for household and non-household customers (even where they cannot charge by metered volume). We also expect companies to quickly move towards all new and replacement meters being 'smart', where this is the best value for customers and the environment. You will also be aware that smart meters can be installed without the need to change billing procedures.	Our plan shows we will deliver universal metering for all our household and non-household customers by 2035. All new installations will be smart. We are developing our support packages for customers to ensure that transitions to metered bills is affordable. As part of this, we will offer a two year transitioning period where we can share meter data to help customers identify potential savings or enable them to prepare for the changes to their bills. We will also enhance our support packages from 2025 to support vulnerable customers. We were also successful in our bid as part of the Defra accelerated infrastructure development and we will be accelerating some of our programme into AMP8.

4.5 Environment Agency

The below section provides the overview recommendations and improvements identified within the Environment Agency feedback. The Environment Agency also provided a detailed evidence report where each of these recommendations and improvements were broken down into sub-actions. This detail has been included at the end of this document in Annex 1.

Consultation Comment	Response
Recommendation 1: Ensure that there is a clear plan to achieve the proposed demand reductions and that it is deliverable. As South Staffs Water's plan is wholly demand based it should provide assurance on how it will deliver the demand side options of its plan and what it will do if it fails to deliver reductions in demand. The company should also improve how it includes the option of smart meters and review the assessment of uncertainty around its demand side options.	We have included a new section in our plan, section 10.2, which discusses our demand management strategy in more detail. In this section we describe how we will deliver the demand management, how we will monitor and report on our performance, and the actions we will take if we are off track. We included the delivery of universal metering in our draft WRMP. All new meters installed will be smart meters. We have updated the benefits we are attributing to installing a meter following a review of experience from others who have already completed extensive metering campaigns such as Anglian Water and Thames Water. We

	have included the detail of this and more information on our metering strategy in detail in section 10.1.2. We have also included an assessment of uncertainty around our demand side options in our target headroom assessment in our revised draft WRMP. This has been updated in the data tables and more detail can be found in section 7.1.
It is important that the company engages with retailers to ensure it improves its non-household demand forecast and it includes additional options to reduce non-household consumption and contribute to the 2037/38 water demand target under the Environment Act 2021. The company should also provide clear information on how existing water efficiency activity is factored into the baseline demand forecast.	We have continued to engage with retailers to improve our non-household demand forecast, and have updated this for the revised draft WRMP. Our draft plan included activities to achieve the 9% NHH consumption reduction target by 2037. We have included additional options for this in the revised draft WRMP in order to provide additional water efficiency support e.g. water efficiency audits and data reviews and support. We have included the detail of this in section 10.1.3. We also describe our existing water efficiency activity in section 10.1.4 (for household customers) and section 10.1.3 (for non-household customers).
Recommendation 2: Ensure the supply forecast is accurate. We have concerns that the company is overestimating its baseline deployable output which has implications for its supply demand balance. The company must review this to ensure it is meeting all its levels of service. We have concerns over aspects of the company's supply forecast, including outage and deployable output. The company overstates its supply forecast. The company shows that its deployable output is constrained by its temporary use ban level of service. However, the company has constrained its deployable output by its emergency drought order level of service. This results in an over-estimate of the baseline deployable output by almost 9Ml/d. South Staffs Water would have a significantly reduced surplus if its forecast was correct.	We have updated our supply forecast to now reflect the level 2 DO due to this being the constraint on our system. We have included further detail on this in section 6.2 of the main document.
Recommendation 3: Ensure the delivery of Environmental Destination and Water Framework Directive objectives. The company should review the impact of agreed WFD licence changes on deployable output. A detailed	We have added additional detail to section 6.10 in the main plan to detail the agreed WFD licence changes that will be enabled in AMP8. Here we share details of the licences impacted and the scale of this impact. Since submitting the draft

breakdown of the company's environmental destination and sustainability reduction scenarios at a licence level (including licence number and licence point) should be provided, clearly detailing and justifying when these are expected in the plan and use sensitivity testing to consider earlier delivery to support this justification. The company should also review the volumes of licence changes and its approach to screening out sources. It should consider catchment and nature-based solutions, and if they can deliver environmental improvements earlier.	plan, we have agreed the specific licence changes with the Environment Agency local team and so we have modelled the impact of these licences and included this reduction in our data tables in line 7.2BL. We have also updated section 6.11 in a similar way for environmental destination. Here we also share details of the licence impacts for the BAU+ and enhanced scenarios. We have also reviewed our delivery profile for these environmental destination abstraction reductions. In our revised draft WRMP, we have updated our trajectory and we will now meet these reductions by 2040. We have tested the sensitivity of this and the dependencies for delivery, which we discuss in more detail in section 10.6. We have also developed an adaptive pathway should our AMP8 investigations show we need to deliver the enhanced scenario. The detail of this is described in section 10.7.
Recommendation 4: Review the assessment of its outage allowance. We have concerns that the outage allowance is too low based on evidence from previous annual reviews. The company should justify why it is so low or increase the allowance to a more appropriate level.	We have updated section 6.5 to provide more information on our outage selection. It should be noted that the outage reported in annual reviews in recent years has included planned outage. In a 1 in 500 drought, our drought plan states we would halt all planned outage and therefore we would only be observing unplanned outage. Currently we are able to make choices around our timing to restoring sites following an unplanned outage e.g. if water resources are healthy, we may leave a site overnight or over the weekend. However, in a 1 in 500 drought, our policy changes and all have to sites have to be attended within 2 hours. These in turn make a difference to a normal year outage profile and that represented in the data tables for a 1 in 500 year drought. Our outage form WRMP24 is also higher than that at WRMP19.
Recommendation 5: Address the issues that have been raised concerning the Strategic Environmental Assessment (SEA) report. The evidence report attached gives more details on these issues. The company needs to explain why it has only assessed the best value plan and not alternatives and give further clarity on the assessment matrices it has used. It also needs to	We have updated the elements raised in the evidence report, and these specific answers are included in Annex 1 to this document. We have submitted an updated SEA document alongside this statement of response. We have now provided more detail around alternative plans in section 9.8.

ensure that monitoring and cross boundary effects are assessed once the plan is implemented.	
Recommendation 6: Ensure that the assessment of climate change impacts in the plan is clear. The company should provide evidence of how climate change is, or could, impact its groundwater sources. It should also explain and justify the assumptions around the impact of climate change on its household demand for water.	We have provided additional information in section 6.6 relating to the impact of climate change on our groundwater sources, our approach to this in our modelling, and the actions we are taking to mitigate some of these risks. We have also added section 5.11 which provides more detail around our assessment of climate change impact on household demand.
Recommendation 7: Ensure the plan is legally compliant by adhering to the WRMP Directions. The plan fails Direction 3 (d)	We have updated section 10.9 to detail our existing greenhouse gas emissions and then the impact that our plan will have on these. We have also included our plan to achieve net zero operational carbon emissions by 2030 in this section.
Improvement 1: Address the various issues outlined concerning the National Capital Accounting (NCA) report. There is lack of clarity and a significant amount of information missing from the report.	We have updated the elements raised in the evidence report, and these specific answers are included in Annex 1 of this document. We will submit an updated NCA alongside this statement of response.
Improvement 2: Address the issues associated with assessing the carbon impacts of the plan. The company should ensure that guidance is followed and any missing information is provided when undertaking the assessment.	We have updated the elements raised in the evidence report, and these specific answers are included in Annex 1 of this document. We have also provided supplementary information on these issues in a new appendix S which has been submitted alongside this statement of response.
Improvement 3: Improve the information provided in the supply and demand technical appendices. The company needs to be clear how it has addressed the improvements provided by consultants in the plan.	We have updated both our supply and demand technical appendices. We have also provided the responses to the specific questions relating to this in Annex 1 of this document. We have also included the improvements suggested, and our responses and actions to them, in the revised draft WRMP in the supply and demand sections.
Improvement 4: Improve and correct the data errors and information that underpin the plan.	We have worked closely with the Environment Agency since the submission of the draft WRMP to resolve any outstanding data errors. For the revised draft WRMP data tables, we have included an additional review and assurance stage to improve data quality prior to submission.
Improvement 5: Review our concerns about some of the supply side options. Check whether some of the options are really feasible	We have updated the elements raised in the evidence report, and these specific answers are included in Annex 1 of this document.

and address other comments provided in the evidence report.	
Improvement 6: Present stochastic drought information in a simple way in the plan.	We have included additional information in section 6.6 to add clarity in this area.
Improvement 7: Confirm which drought permits and supply side drought orders are included in the plan. Provide clarity as to why they seem to give lower supply benefits than in the company's drought plan.	We have updated the elements raised in the evidence report, and these specific answers are included in Annex 1 of this document. We have included our two drought permits and options in this plan: - Drought permit on the River Blithe - Drought order on the River Severn We have reviewed the benefits detailed in the plan and can confirm they correspond to those detailed in table 8 of our drought plan: - River Blithe – the drought plan states up to 23 Ml/d and our draft WRMP states 8 Ml/d. This is because our drought plan quotes the daily pumping capacity whereas the WRMP quotes the DO impact. - River Severn – the drought plan has two elements to this drought order. The first is to rescind the Environment Agency drought order imposing 5% abstraction reduction. This equates to a 9.6 Ml/d. The second is based on an increase from the restricted rate to works capacity. This equates to an additional 14.4 Ml/d benefit. We have updated table 6 in our plan to represent both of these options.
Improvement 8: Improve the target headroom assessment. Consider using a variable target headroom percentile profile in the plan or clearly explain why this is not appropriate.	We have included the demand management uncertainty assessment in our updated headroom assessment profile for the revised draft WRMP. We have also provided more detail on our choice of profile in section 7.2.
Improvement 9: Clarify how alternative programmes of options have been appraised to achieve the plan.	We have included additional information particularly through section 9.5 for each of the demand management workstreams, and also throughout section 10.1, to share the different programme of options reviewed and how we have chosen our preferred profiles.
Improvement 10: Ensure the revised draft plan takes account of any decisions on the company's scheme acceleration proposals where applicable.	We have included section 9.7 in the revised draft WRMP which details our accelerated scheme proposals, our approach and the impact on our plan.
Improvement 11: Review resilience of its plan in the context of the 2018 and 2022 drought.	In January 2023, we undertook a review of the drought of 2022, highlighting the successes,

South Staffs Water should consider what lessons it can learn from the droughts in 2018 and 2022 and how it can improve security of supply for its customers while protecting the environment. The company should present the lessons identified and the actions relevant to its WRMP in its final plan. It should highlight any changes it is planning to make to its plan as a result of the droughts.	lessons learned and future recommendations. We have included this as an appendix to the revised draft plan (appendix R).

4.6 Everflow

Consultation Comment	Response
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. We therefore urge wholesalers to align with the national NHH metering strategy being developed by MOSL.	In our draft WRMP we included plans to reduce non-household consumption by 9%, aligned with the Environment Act target. We proposed to deliver this through the implementation of enhanced meter technology throughout our whole non-household population. In the revised draft WRMP we have further enhanced our options in this area to support this reduction and achieve 15% reduction by 2050. This is detailed in section 10.1.3 and include: - Water efficiency reviews and audits - Data reviews e.g. continuous use, to help identify wastage and leakage
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.	We have included this detail in our main report in section 10.1.3. Here we include the detail of our programme, including the number of meters per year. We're proposing an even profile of installations which equates to circa 3,500 meters per year for non-household customers. Our targeted roll-out programme will now be developed prior to 2025 and shared with retailers.
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	We will work with retailers to ensure that data visibility is readily available for them and for NHH customers.

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.	
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.	We will look to prioritise our support to the highest water users initially, including a review of continuous flow users. We believe this will enable to us to identify the largest savings first. As the programme progresses, we will move to medium users. Many of our large multi-site customers have sustainability leads who have a strong focus on energy and water and therefore we will work with these teams to provide advice and support. In reality, there may be few gains to be had here, and we will focus on large single site users who may not have the internal support for this activity already. We are proposing a programme of household water efficiency audits and will adopt the same approach for small non household customers in the same area where appropriate e.g. hairdressers, shops etc. We will also take the same approach with our metering rollout. This is because we believe there are efficiencies to be recognised by combining these NHH customers with the local HH customers.
We would echo Waterwise's request last year for a 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	In developing our non-household consumption reduction plan, we have liaised with other water companies in both Water Resources West and Water Resources East in order to agree a common approach. Section 10.1.3 details the Retailer engagement club project that we undertook with the other WRE companies to identify the best mechanisms to reduce water efficiency and how best to engage with retailers and

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.	non-householders in order to deliver our plan. We believe this is important so that Retailers can expect a consistent approach from the various Wholesalers with whom they work. This will lead to the most efficient way of engaging and operating with both retailers and non-household customers in order to deliver the maximum benefits.
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.	This information is detailed in our drought plan which was published in 2022. The link for this document can be found here and Appendix B details our communication plan.
We ask that all wholesalers: - Specifically detail their plans for NHH metering and water efficiency	We included our plans for NHH metering in our draft WRMP, and our revised draft WRMP now shares more detail on this plan and additional information our on NHH water efficiency plans. This can be found in section 10.1.3.
We ask that all wholesalers: - Align with MOSL led national approaches	We are committed to aligning with MODL led national approaches wherever possible.
We ask that all wholesalers: - Think about how to incentivise retailers to deliver water efficiency or collaborate.	Our club project has been exploring this with retailers and we are committed to continue exploring this option.

4.7 Historic England

Consultation Comment	**Response**
Table 1, on page 25, it may be beneficial to include plans/ programmes which relate to water management and the historic environment. A link to relevant documents is included below: The historic environment should be considered as part of the Strategic Environmental Assessment process. We recommend that these comments should be read alongside our Advice Note 8. Our advice note provides	We have updated table 1 on page 25 to reflect the links to relevant plans and advice notes relating to the conservation and enhancement of the historic environment.

more guidance to developing a robust sustainability appraisal framework. https://historicengland.org.uk/research/agenda/thematic-strategies/water-wetland	
Paragraph 1.7.8 we are keen to understand how heritage has been considered within these Plans and to ensure the points we have made are incorporated.	The 25 Year Environment Plan is the Government plan to help the natural world regain and retain good health. We are committed to play our part in these objectives and we have ensured these goals are supported through the options developed in our plan.
Paragraph 2.7.2 we are keen to understand what analysis has been taken from a heritage perspective of the River Severn and surrounding areas and how this may have impacted upon the proposals or how this can be undertaken.	Our River Severn modelling comes from the Severn Trent Water model. We propose to work with Historic England and Severn Trent Water to understand how heritage is or could be considered in this assessment.
Paragraph 3.3.2 it is also essential to consider impacts to the historic environment, the significance of heritage assets and their setting, under the section of environmental protection heritage assets can include deposits of paleoenvironmental significance, such as peats. It should also be understood that there is a historic character to the wider landscape and that the historic environment needs to be considered as part of a holistic whole.	We have updated section 3.3.2 to include a reference to the historic environment. As our plan does not select any new supply side options, we are not proposing to update any surveys, but will ensure this is included in future assessments.
Section 6 details measures to deal with issues such as drought, abstraction, flooding and we are keen to ensure that the general points we have made at the beginning of this response are taken into account when forming appropriate plans and proposals for these issues, as they can have a significant impact on the historic environment and designated/ non designated heritage assets. For example, in the 'scenario' box on page 63 there could be measures included that would reflect the needs of the historic environment.	The scenario box on page 63 of the draft WRMP relates to the environmental destination scenarios from the Environment Agency's National Framework and relates directly to water flows and abstraction reductions. We will ensure that we include a review of the historic environment in our AMP8 environmental destination surveys to understand the risks and benefits that the proposed abstraction reductions could bring.
Overall, we are concerned by the lack of reference to the historic environment within the Plan; we observe generally a lack of suitable references to the historic environment in the Plan. Earlier in our response we explain why the historic environment is important in relation to water plans and have made recommendations on how the historic environment can	We have updated table 1 and section 3.3.2 and 6.11.1 to include the important links to the historic environment.

be considered in the Plan in order to address these issues.	
Historic England would welcome the opportunity to engage with the development of supply options (especially those outlined in 9.5.2.2 and 9.5.2.4 at an early opportunity). Historic England is keen to engage early on any specific proposals and is available to offer our advice in this process. Please contact us to discuss specific proposals when they are available. Where any proposals are forthcoming then we will require Heritage Impact Assessment to be undertaken and a consideration of the historic environment, based on the general principles that we have set out above.	Our draft WRMP does not select any supply side options, and therefore we are not developing these further at this time. However, we will ensure we engage with Historic England in any future development of supply side options.
Paragraph 1.3, it would be useful to be consulted at the earliest opportunity in order to manage resources internally and to ensure that implications for the historic environment are considered at the outset.	We will ensure that Historic England is consulted as a key stakeholder throughout our plan development.

4.8 MOSL

Consultation Comment	**Response**
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.	In our draft WRMP we included plans to reduce non-household consumption by 9%, aligned with the Environment Act target. We proposed to deliver this through the implementation of enhanced meter technology throughout our whole non-household population. In the revised draft WRMP we have further enhanced our options in this area to support this reduction and achieve 15% reduction by 2050. This is detailed in section 10.1.3, where we demonstrate how our activities will deliver reductions greater than these targets.
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	Our WRMP proposes to fit enhanced meter technology to all non-household customers. We have also worked with retailers to identify the highest consumers and propose to work with retailers to provide water efficiency reviews and leakage detection through AMP8 to these customers. We have prioritised these

targeted programme of smart meter replacements or upgrades (AMI, AMR, smart loggers, etc.).	business due to the volume of water utilised and therefore we feel these provide the largest scope for water savings. We describe this in more detail in section 10.1.3.
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.	Our proposal looks at continuous flow and we will look to undertake a review of all of these customers in AMP8. This is specific learning from our engagement with Thames Water who saw success in this area in their work on this in AMP7.
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 worked with Artesia in the development of our NHH options for our draft WRMP and have included the enhanced metering technology for all NHH as one of these options using the benefits identified in their report for MOSL delivered in 2022. In our draft plan, this option is selected as one of our preferred options. In our draft WRMP we proposed to undertake installation of enhanced meter technology to all our non-household customers between 2025 and 2035 which is aligned with our household customer universal metering programme. This is due to the efficiencies we believe can be realised by combining the programmes in this way and aligns with the conclusion of the Artesia report in 2022.
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.	Our plan proposes to fit smart metering technology across our whole customer base, both household and non-household, between 2025 and 2035. We also believe that by aligning these two programmes we will achieve efficiencies and maximise the benefits of community communications and engagement as a result.
Greater use of the research (A Strategy for Enhancing Metering Technology (mosl.co.uk)) 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 will be working with retailers to ensure that data visibility is readily available for them and for NHH customers.
Clarity on the number of smart meters you intend to deploy in AMP8 and beyond – visibility for retailers on	We have included the annual number of meters we intend to install, across both

when they will be rolled out and where will help avoid duplication of effort.	domestic and non-household properties, in 10.1.3 and 10.1.4 of the document. We will develop the detailed rollout plan over the next 12 months and ensure we engage with both retailers and non-household customers to communicate this.
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 have liaised with South East Water, who have undertaken a universal metering rollout programme, to understand the approach taken, the success and lessons learned in order to develop the most efficient rollout programme, including resources, customer engagement and delivery mechanisms. In addition, we have taken the evidence from Anglian Water and Thames Water who have undertaken extensive smart metering campaigns in AMP7. They have produced detailed analysis to show the savings achieved through the installation of a smart meter, and in our revised draft plan we have adopted a figure of 13% based on the Thames Water findings.
Explanation of how water efficiency services would be offered to different categories of NHH customers – multi-site, industrial customers, commercial/offices etc.	We will look to prioritise our support to the highest water users initially, including a review of continuous flow users. We believe this will enable to us to identify the largest savings first. As the programme progresses, we will move to medium users. Many of our large multi-site customers have sustainability leads who have a strong focus on energy and water and therefore we will work with these teams to provide advice and support. In reality, there may be few gains to be had here, and we will focus on large single site users who may not have the internal support for this activity already. We are proposing a programme of household water efficiency audits and will adopt the same approach for small non household customers in the same area where appropriate e.g. hairdressers, shops etc. As with the metering rollout, we believe there are efficiencies to be

	recognised by combining these NHH customers with the local HH customers.
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 have undertaken a club project with other water companies including Anglian Water, during the development of the draft WRMP where we have engaged with retailers to understand how best to work together to achieve these water efficiency objectives. This includes exploring incentive mechanisms, and we are looking to continue building on this work throughout the rest of AMP7. We also include more detail on our plans in the updated section 10.1.3 of our revised draft WRMP.
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 have undertaken a club project with other water companies including Anglian Water, during the development of the draft WRMP where we have engaged with retailers to understand how best to work together to achieve these water efficiency objectives. This includes exploring incentive mechanisms, and we are looking to continue building on this work throughout the rest of AMP7.
Ensuring references to 'customers' are clear, in terms of whether you are referring to households, NHHs or all customers.	We have reviewed our plan narrative and made any necessary clarifications where we believed it may be unclear as the customer group.
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 have included a paragraph in section 10.1.3 which supports this point by providing detail around the scale of our non-household market, the challenges and the opportunities for water demand reduction and the key role this plays in our WRMP.
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 have included more detail in section 10.1 in the revised draft WRMP which details the Environment Act targets and how our WRMP aligns to the delivery of these. Section 10.1.3 provides the detail as to how we will achieve the 9% non-household consumption reduction target.
In the final plan, MOSL would like to see water companies include: a country-wide approach to demand reduction, regardless of whether water company	In developing our non-household consumption reduction plan, we have liaised with other water companies in both

regions are designated as being 'water stressed' or not, recognising all areas have local demand challenges.	Water Resources West and Water Resources East in order to agree a common approach. Section 10.1.3 details the Retailer engagement club project that we undertook with the other WRE companies to identify the best mechanisms to reduce water efficiency and how best to engage with retailers and non-householders in order to deliver our plan. We believe this is important so that Retailers can expect a consistent approach from the various Wholesalers with whom they work. This will lead to the most efficient way of engaging and operating with both retailers and non-household customers in order to deliver the maximum benefits. As part of this work, we have also spoken to other water companies who are already proactive in this area e.g. Thames Water, in order to identify best practice and lessons learned, as well as clarify the costs of activities and the benefits delivered. We are also supportive of the proposed "ARID" group, which would look to replicate the "RAPID" organisation for demand management focus. We believe that this focus and support will enable the delivery of the activities identified across water company WRMPs, as well as identify new opportunities.

4.9 National Trust

Consultation Comment	**Response**
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;	We have applied the mitigation hierarchy to our planning approach, and as a result we are able to maintain a positive supply demand balance throughout the planning period through our ambitious demand management programme and do not need any new supply options. By developing plans to achieve the Environment Act targets for leakage, domestic and non-

• 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.	household consumption and the volume of water we input to our system per capita, we are able to remove the need for any additional infrastructure. As part of our consumption reduction programmes, we plan builds on the existing education work we have been undertaking in AMP7 and before and looks to utilise the data gathered from increased smart metering in order to provide more information to our customers and support and advice on the choices they can make as a result. We are keen to work across the water industry to ensure we communicate a consistent message with our customers and deliver maximum impact through speaking with once voice. We are committed to working with our stakeholders as we continue to progress with our WRMP and our environmental programmes of work to ensure we are able to mitigate any impacts and maximise the benefits.
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.	Our plan does not propose any supply options and will not impact on National Trust land. We have taken note of this for any future planning.
Where there are areas of National Trust land potentially affected by any stage of the overarching dWRMP options that we have not specifically identified, 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 South Staffs Water's draft WRMP24 prior to its finalisation.	Our plan does not include any options that potentially impact on National Trust land. However, we will ensure we engage with National Trust should this change and/or as we continue through our water resources planning from 2025 onwards. This also related to our environmental programme where we would be keen to identify any common areas of interest and opportunity.

4.10 Natural England

Consultation Comment	Response
Natural England is concerned that the Environmental Destination set out in the plan is not sufficiently robust to ensure compliance with SEA requirements. Where the companies dWRMP is relying on the Regional Plan SEA or/ and the Environmental Destination within the plan to meet its environmental obligations it must still satisfy itself that the companies environmental obligations set out in Annex 2 are met. This includes making sure that non-European SSSI rivers and wetland SSSI and priority wetland habitats have been included in the Regional Plan Environmental Destination modelling. Species obligations and newer obligations from the Environmental Improvement Plan (EIP) should also be included within the Environmental Destination. WRMPs must include a pathway to meet the Company's nature recovery obligations in line with duties and timetables in Annex 2. In Natural England's view South Staffordshire Water's dWRMP as currently written must be amended to meet these obligations.	The Environmental Improvement Plan was published following the submission and publication of our draft WRMP. For our revised draft WRMP, we have included the targets from this in our plan and cover the detail of this is section 10.1. We have also provided more information on our approach to Environmental Destination in section 6.11 of the revised draft WRMP. It should be noted that this section also details the detailed investigations and modelling that we will undertake during AMP8 to clarify and validate the proposals we have in the plan, and this will be updated again at WRMP29 accordingly. We have updated our trajectory for achieving the environmental destination profile in our revised draft WRMP and are now proposing to deliver these reductions by 2040. Section 6.11 also details our prioritisation of these reductions, particularly where these abstractions have potential impacts on designated sites.
While the Severn Estuary may currently fall outside of the scope for the demand management options assessment on likely impacts, you should include consideration of impact to the Severn Estuary in your sites list and its designated features if you choose to move forward with the feasible options outlined in your WRMP.	For our revised draft plan we have updated our supply and demand forecasts. Our plan options have not changed in that we still do not require any supply options to meet the deficit in the planning period. However, we acknowledge that a plan based on demand management reductions alone carries a level of risk, and therefore we need to have robust monitoring and alternative pathways that can be triggered should the demand management activities not deliver the required reduction. We detail this further in section 10.2 of the revised draft plan which discusses how we will monitor our delivery, the alternative pathway and the work required for this. Our alternative pathway does not look at utilising an option that impacts on the

	Severn Estuary; however we have noted this requirement for any future work.
The demand management options that are in SSW preferred plan, have been reported to meet the deficit. There is a lack of certainty here how the demand management options will meet the deficit and the actions that will be implemented if this fails.	We have included further detail on the delivery of these demand management options in our revised draft plan. Section 10.2 describes the detail on this discusses our approach to monitoring the demand management activities and the alternative pathways that may be required.
South Staffordshire Water should be seeking significant demand management measures to improve environmental resilience and alleviate the pressure on biodiversity from the abstraction of water within the company's operational area. The demand management interventions should be timetabled from as early as possible in the plan to meet the objectives, policies and timetables for nature recovery set out in Annex 2.	For the revised draft plan we have looked at additional scenarios for demand reduction e.g. accelerating leakage. We describe these scenarios and the reason for our chosen glidepaths in section 10.1. We have looked to deliver these measures in a way that delivers the best value, is affordable for our customers and meets the needs of the environment.
NE would like to flag the uncertainty around planning. NE advises South Staffordshire Water to undertake a HRA of the alternative options to improve the resilience of the plan and ensure that any monitoring/assessment which may be required for the HRA have been identified so that if the alternative options are required, they have ensured these are deliverable.	As part of our alternative planning, as detailed in section 10.7, we do not need any supply options in any of the tested scenarios in our plan. We have proposed an approach for monitoring the demand management performance and should we need to utilise an alternative pathway that does involve a supply option, we have included the need to undertake an HRA at that trigger point.
The HRA of the dWRMP should include existing licences where a material change has occurred since the last HRA of that licence or/and the last dWRMP. The material change can include changes to the climate, guidance, policy, legislation, conservation objectives or SACOs (Supplementary Advice to Conservation Objectives) or evidence of site deterioration/condition change or anything that is material to the determination of either likely significant effect or adverse effect on integrity. If abstractions in the current plan rely on the EA RoC, caselaw since this point has fundamentally changed how Natural England advises on HRA assessments. We would therefore advise a material change has occurred since the last HRA was undertaken.	As part of the WRMP process, licences are identified between the water company and Environment Agency that are determined as valid for the planning period or identified as requiring sustainability reductions. This informs the baseline and provides an opportunity to flag any other licences considered to be at risk. Neither the Environment Agency nor Natural England have identified, or raised concerns, about any of South Staffs existing licences causing a deterioration in condition of a European site. As such, no further assessment is required.
The SEA scoped feasible supply options and note the likely significant effects that would arise from these	At draft plan stage, we included the demand management targets we

options supporting why SSW has chosen these options. However, an assessment of plan alternatives and a clear understanding of why the preferred plan has been chosen in light of alternatives has not been made and should be completed to be compliant with the SEA regulations.	expected to be confirmed in the Environment Act. By achieving these, there was no supply demand deficit. These targets have now been confirmed and therefore we have to include the delivery of these in our plan. As such, we still have no supply demand deficit in the planning period and therefore no alternative plan that includes supply options or variations of our existing options. We have provided more detail around how we have optimised the activities within our plan in section 9.7.
As a donor company of bulk supply to various NAVs the company must ensure the relevant environmental assessments for these transfers have been undertaken, in relation to the bulk transfer and the supply abstractions, the SEA must be updated accordingly if any environmental impacts are identified from these sources/transfers.	Our draft WRMP stated that we were a donor company to a NAV in our area – however this is incorrect, and section 2.7 of the plan has been updated to reflect this.
The dWRMP does not include proposals to enhance SSSI resilience to potential impacts from changes in water availability including improving site condition, in line with the company duties as set out in Annex 2. In section 5.4.2 of the Water resources planning guideline, it states: "You will need to use an appropriate level of evidence to justify your decisions and your level of ambition. This should include evidence of customer and stakeholder support for your destination and the ambitions of the 25 Year Environment Plan (England) or the Water Strategy for Wales and its objectives. In doing so 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." The reduction in abstraction is encouraged, further consideration for the use of the catchment approach and working with natural processes to develop new ways of managing water should be explored to support nature recovery and contribute to natural capital where this is possible.	In section 6.11 we have provided more detail regarding our prioritisation of the environmental destination reductions, as dared below: - Those reductions that would benefit designated sites e.g. SSSIs. - Reasons for Not Achieving Good Status (RNAG) – where this is impacted by abstraction. - Priority catchment – agreed at Water Resources West as the Worcester Middle Severn, based on extensive data gathering of all of the current issues, deficits and opportunities. - Those reductions that would remove the need for augmentation schemes.
As strengthened by the Environment Act 2021, public bodies have duty to: "further the conservation and enhancement of biodiversity" In the SEA Appendix D: Baseline analysis consideration has been made to the NERC act, and key issues relevant to the WRMP have	Section 10.8 details our broader AMP8 WINEP commitments, which include activities specifically related to biodiversity improvements. Supporting this, we are proposing to develop a 25 year

been identified. Further explanation should be made to how these issues will be addressed in the final plan.	environment plan for South Staffs Water that will align with the Government plan and detail our longer term objectives.
NE notes that consideration should be made for current operational impacts and how these could impact on species recovery and protected species moving forwards. The assessment of the plan has not considered the extinction risk of current or future operational actions. Natural England recommends that measures are put forward in the final plan which contribute to the 2030 species target & mitigate the extinction risk to species within South Staffordshire Water's operational area.	Section 10.8 details our broader AMP8 WINEP commitments. Supporting this, we are proposing to develop a 25 year environment plan for South Staffs Water that will align with the Government plans and detail our longer term objectives.
There is no information in SSW dWRMP24 that assesses current or projected greenhouse gas emissions. This should be assessed in your plan. NE recommends that you explore options for reducing greenhouse gas emissions including reducing carbon emissions in your plan and further information is provided on how SSW will meet net zero operational carbon by 2030.	We have included section 10.10 which assess current and projected greenhouse gas emissions. Section 10.10 details our net zero plan and details our actions for achieving this.
The WRMP should assess how much water is needed to support nature-based solutions in the company supply area. SSW should take into account the need to wet peat to help achieve the objectives of England peat action plan in their assessment of water requirements.	There are no peat based soils in our region, as detailed on Defra's Magic Map. Therefore we have not included any water requirements for peat wetting in our plan.
Beyond what has been considered during the option selection stages for future environmental scenarios and reduction of abstractions, there does not seem to have been explicit consideration to assess how much water is needed to support wildlife adapt to climate change & to ensure enough water is retained in the environment (groundwater & rivers) to restore or maintain favourable condition of protected sites, species & priority habitats. Nature-based solutions have not been considered as key components of the plan, and wider environmental & society objectives for water use in South Staffordshire Water's supply area have not been considered. For example, the company has not taken account of the requirement to re-wet peat in order to achieve objectives in the England peat action plan as part of a wider assessment of their environmental impacts.	As detailed above, there are no peat based soils in our region, as detailed on Defra's Magic Map. Therefore we have not included any water requirements for peat wetting in our plan. We have included more information on our WINEP programme in the revised draft WRMP in section 10.8 which details our other proposed environmental protection and enhancement work.
In SSW SEA document it states: "The draft WRMP24 also assumes delivery of an environmental destination scenario by 2050. This scenario will continue to take	Our plan outlines the near term licence caps that we will put in place by 2027 in

shape over time." Please note in the Water resources planning guideline, it states that your plan: "should include your long term environmental destination, clearly setting out the actions you will take in the short, medium and long term to achieve it. You should distinguish between actions that are required to meet current regulatory requirements and those that form part of your longer term destination. If the actions to achieve the long term environmental destination are not known at this stage, you should identify what further work is needed to understand the actions that are required to deliver your environmental destination" Your plan should demonstrate in detail how the environmental destination will be met, if this is not known you should identify what further actions are needed to deliver your environmental destination. Freshwater dependent sites in the West Midlands are already under severe water stress, by failing to address unsustainable abstraction these sites will not be able to recover and contribute to nature recovery & healthy thriving wildlife. Natural England would strongly advise to aim for the Enhanced Scenario as a minimum in South Staffordshire Water's long term planning horizons. Natural England considers the Enhanced Scenario the minimum required to deliver the government biodiversity policies and targets. There is still significant uncertainty over the amount of water required for freshwater dependent sites such as lakes, wetlands and headwaters & peat, which may not have been factored into the Enhance scenario planning.	order to prevent deterioration. This is detailed in section 6.10. We have included in our AMP8 WINEP programme investigations to determine the scale of the abstraction reductions needed to deliver the long term environmental destination in our area. These investigations will also look at what other actions are required to support this, and these will form the basis of future WINEP programmes and WRMP29. Our draft WRMP plans to achieve the BAU+ scenario. This is due to the high level of uncertainty around the scale of abstraction reduction required until those investigations are completed in AMP8. However, we have included an adaptive scenario in our revised draft WRMP, in section 10.7, which shows an alternative pathway for the plan which delivers the enhanced scenario. This pathway shows that we have the ability to deliver this scenario without any additional supply side options, should this be the scale of reduction identified in the AMP8 investigations. While the timeline for delivering this would be slightly longer than our proposed timeline for delivering the BAU+ reductions, it would still be achieved before 2050.
New targets for water usage were published in The Environmental Improvement Plan (EIP) on the 31st January, the plan can be found here: Environmental Improvement Plan (publishing.service.gov.uk). Natural England would recommend revising the plan to ensure that the interim targets set out in the EIP are achieved within a reasonable timeframe (please seen Annex 2 for further detail).	In our draft plan, we confirmed we would achieve 110 l/h/d and 50% leakage reduction by 2050, as well as 9% non-household reduction by 2038. Since the publication of the draft WRMP, the Environment Act targets have been published, and our revised draft WRMP ensures we meet the interim targets for these key measures now, as well as also achieving the 20% reduction in distribution input per capita. We have added more detail on this in section 10.1.1.2, 10.1.3.3 and 10.1.4.
Water Companies have a statutory duty to prepare Water Resource Management Plans (WRMPs) and are the Competent Authority for Habitats Regulations	As part of the draft WRMP, South Staffs completed HRA Stage 1 Screening on all supply options, which could have been

Assessment (HRA) of the draft WRMP. Natural England has reviewed the HRA submitted with this dWRMP, and wishes to provide the following advice: NE identifies that the HRA is a clear, identifiable, standalone report in the publication list, identified as "WRMP24 - Appendix P2- Habitats regulations assessment issue 1.1". SSW are not requiring any new supply options during the planning period of 2025-2050, no additional screening assessment or appropriate assessments have been made past stage one of identifying LSE to European sites as no LSE has been concluded for the demand management options for their preferred plan. In table "Table 4.1 Screening 'risk review' of supply-side feasible options for impacts on European sites" there is a review of the significant effects from the supply options. As South Staffs Water does not have any supply options in their planning period (2025-2050), no further appropriate assessment has been made as no likely significant effect has been concluded from their demand management options (preferred options). In section 5.2 of the HRA report, South Staffs Water have made consideration to the in-combination effects with other South Staffs Water plans. No in-combination effects have been concluded with the drought order as the dWRMP preferred programme does not have any supply side options. The demand management options proposed in this plan have been considered and will not affect European sites. Consideration has been made for the in-combination effects with other WRMPs, as the dWRMP for South Staffs Water does not have any supply side options and the demand management options will not impact the integrity of European sites within this area, South Staffs Water have concluded that there will be no in-combination effects with other WRMPs. The SSW technical note states: "You should ensure your plans can adequately adapt to over or under-achievement of demand management	included in an alternative pathway. This stage is documented in the HRA. As part of internal work, whilst the modelling and WRMP was being developed, South Staffs has completed draft HRA Stage 2 Appropriate Assessments for a number of supply side options. However, with a re-run of the plan completed, supply side options are still not required, even under alternative pathways. As such, no Stage 2 Appropriate Assessments have been included in the HRA to support the Preferred Plan, as these are not required.

activity. You should use scenario testing to examine the potential uncertainty of any future demand forecasts."	
Landscapes and protected landscapes have been considered, and measures and considerations to mitigate impact upon landscape detailed.	Comment noted. Where impacts to landscape are identified we will ensure appropriate detail is provided as to how these will be avoided or mitigated when implementing the WRMP. It is important to note that the SSW rdWRMP currently contains no supply options in the preferred plan therefore impacts on landscape are considered unlikely.
South Staffordshire Water WRMP acknowledges that "Icosa Water have been granted a licence to operate in our area, and our WRMP will therefore also includes this supply". The WRMP does not seem to take account the bulk transfers from South Staffordshire Water to various NAVs in their supply area. These need to be taken into account in supply demand balances and the environmental impacts assessed with the appropriate options, if not already accounted for. If these assessments have not already been accounted for the HRA and SEA should be updated as outlined in those sections of this letter.	This was an error in our original submission. Icosa Water do not operate in our area and therefore we have updated the narrative to reflect this.

4.11 Ofwat

Consultation Comment	**Response**
In its final WRMP South Staffs Water should: quantify and justify the reasoning for changes in water needs between the end point of WRMP19 and the starting point for WRMP24, and that PR19 schemes are being delivered as planned and accounted for appropriately in the supply-demand balance.	We have created a new section in plan – section 6.9. Here we detail any changes between the end point of WRMP19 and the starting point of PR24 and the reasons for this. We have also created a new section 2.2 which provides details on our commitments at WRMP19 for AMP7 and how we have performed against these, and therefore any related assumptions that have gone into the WRMP24 as a result. This includes both supply side and demand side activities. For PCC and leakage, we have assumed we will achieve our end of AMP7 target for both areas and therefore our WRMP24 starts at these levels.

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 21% of company water demand (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, 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 in its final WRMP.	We have included a comparison of our starting point in WRMP24 compared to the same position in our WRMP19 in a new section in the plan, section 6.9. Here we articulate any changes between key numbers and assumptions, and he reasons for this. The key driver behind the reduced supply demand balance is due to the change in the table requirement to report data for a 1 in 500 year drought. At WRMP19, the table data was for a dry year, and our modelling shows a significant reduction in our available DO in a 1 in 500 year event – approximately 58 Ml/d less than for a dry year (as used at WRMP19). This has a direct hit on the supply demand balance. As our system is already resilient to a 1 in 500 year event, we have used this DO value right from the start of the planning period, in line with the WRPG. Our outage has increased from WRMP19 from 8.28 Ml/d to 10.1 Ml/d. This increases our outage from 2.8% to 3.4% of distribution input. This is explained in section 6.5 of our plan where we have added additional detail to explain the increase and also detail what work we are doing to reduce this level. Process losses have been revised, and this is discussed in a separate point below. We have provided more detail in section 6.7.1 of the plan to explain the value, which has now reduced by 6 Ml/d from our draft plan submission and detail the ongoing work we are doing to reduce this level.
There is limited evidence provided that the benefits of funded PR19 activities have been appropriately factored into the draft WRMP24 baseline supply-demand balance. South Staffs Water should provide granular details of the benefits of funded schemes and how and when these have benefitted the baseline supply-demand balance. Where a step change in supply demand balance between WRMP19 and WRMP24 is not sufficiently justified by scenario drivers, and may instead be as a result of non-delivery or underperformance,	We have included a new section in our plan, section 2.2, which details our AMP7 funded activities and our performance against them. Here we articulate any implications this has had on our planning assumptions and the impact these have had on our baseline supply-demand balance.

considerations will be made at PR24 in the assessment of enhancement funding.	
As we outlined in November 2021, we expect near-term interventions being identified in WRMPs to deliver long-term targets such as a 50% leakage reduction and 110l/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. The company's plan only considers linear leakage reduction profiles, with the 50% leakage reduction by 2049-50 profile selected as the preferred option. 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 the revised draft WRMP we have updated our demand forecast, and as a result we have updated our leakage profile. We have included details in section 10.1.1 more detail regarding the different scenarios we explored for leakage, and why we have selected the profile that we have. Since producing the draft WRMP, the Environment Act targets have now been released including interim targets, which specifically apply to the leakage reduction. These targets deliver a linear reduction profile, and if we are to meet these targets, there is little opportunity to flex our profile except to accelerate it. We discuss this in section 10.1.1. and why we have chosen to maintain a linear profile in line with achieving the interim targets.
We are concerned that based on the draft WRMP data tables the company does not forecast to deliver its PR19 performance commitment level for PCC by 2024-25. 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.	We have updated our PCC forecast levels to ensure it corresponds to the end of AMP7 target absolute position – 127.4 l/h/d. Our plan therefore starts at this end delivery position. We are still seeing the impact of Covid on our PCC level and have ambitious plans in place to ensure we reduce our PCC to the target level so that our plan from 2025 starts in this place.
South Staffs Water's raw water losses allowance is very high compared to most other companies', at over 10% of the company distribution input. This planning assumption contributes significantly to the company supply-demand balance and any need for investment. The company needs to present sufficient and convincing evidence that the raw water loss allowance is appropriate in both the short and long term, is not driving unnecessary and high regret investment and how the company has considered options to reduce its raw water losses.	We have updated our treatment losses and used the most recent six years' worth of data. In addition, we have included any known future changes as a result of work being undertaken during AMP7. As a result, the losses have reduced to 7% of our distribution input. This is predominantly due to our Hampton Loade works and the upgrade works taking place in AMP7 which will increase losses at the site to 10%, where all other sites are at 5% or less. As a result, we have also included detail in our plan, in section 6.8, around the actions we propose to take to reduce treatment losses at this site.

The key drivers for the planning problem are described as being due to growth and long-term environmental destination. South Staffs Water has provided assurance that abstraction reductions are not double counted when licence capping is combined with environmental destination scenarios. We expect South Staffs Water to clearly explain the rationale for the chosen planning horizon in its final WRMP.	We have included more detail in section 6.11 which shows our revised profile for achieving the BAU+ environmental destination scenario. Due to the positive SDB position throughout the final plan, we are able to deliver these abstraction reductions prior to the 2050 date. We have included a glidepath that ensures we maintain a healthy SDB but shows our level of ambition to protect and enhance the environment. We propose to reduce licences across all catchments in a phased approach as we are reliant on our demand management programme enabling these reductions, and we are keen to ensure we do not cause short term deficits in certain zones which would require interim investment to resolve. Section 6.11 provides information around how we will prioritise these reductions. We expect the detail of this to be updated at WRMP29 once we have completed our investigations into the actions required as part of our AMP8 WINEP programme. This will likely impact on the scale of the reductions required and the priorities.
In its final WRMP South Staffs Water should: • Provide clear evidence for what constraints have been imposed on decision making, why the company has imposed any policy/decision making constraints to its decision making process or why these are appropriate and in the interests of customers and the environment. • Discuss how sensitivity tests show that these constraints do not limit the cost benefit or value of the potential programmes.	We have provided additional detail on our decision making process for each of our demand management areas in section 10.1 of the plan. We have also added a new section, 9.8, which specifically details any decision making constraints such as customer views, affordability and financeability.
In its final WRMP South Staffs Water: provide robust and clear supporting evidence for its data tables. We are concerned about the level of detail and accuracy applied to the WRMP data tables. The tables had missing, incomplete, and resubmitted data which led to some difficulties in assessing the plan.	We acknowledge there were some data errors in our initial submission of the data tables. These were corrected through engagement with the Environment Agency prior to publication for consultation. There were also elements missing at draft plan which relate to our PR24 submission – this is because the wider detail was not yet determined at the time of submission, and this has been updated for the revised draft plan.

	We have also added in an additional layer of internal review for the data tables before submission to ensure any errors are identified. This additional level of assurance is designed to remove the issues seen at draft submission stage.
A statement of assurance from the Board has been provided, as well as a supporting statement, confirming the engagement and support of the Board with the plan. The governance and decision making process used in developing the plan was provided in a query response, showing evidence of the decision making processes and this should be included in the final plan, alongside the Board's signed statement of assurance, accompanied by a supporting statement.	We have updated section 2.13 to provide more detail on our governance and assurance procedures, including incorporating the detail provided in the query response.
In the final plan, we expect to see evidence of assurance on South Staffs Water's understanding and acceptance of the approach to licence capping. This is to ensure the risk and impact this imposes to South Staffs Water is fully understood in the context of the largest drivers of future investment in the plan and the uncertainty that still surrounds this.	We have provided more detail regarding the licence caps in section 6.10 of the plan. Here we have provided the following: • Detailed which licences are impacted and the catchments affected • Shared the licence cap impact to DO for each licence • Explained the impact in a normal year compared to dry year • Confirmed the date of implementation as 2027, aligned with the WFD and requirements in the RBMP • Shared impact on plan of these caps and any cost implications as a result • Shared our Board engagement on this topic and confirmation of approval
In its final WRMP South Staffs Water should: consider a larger range of supply and demand options. There are only 17 preferred options presented in the plan which is a very small number compared to other companies with a similar supply demand balance deficit. Further work is required for the final plan to include a wider range of options.	During pre-consultation, all of our groundwater options were removed from our feasible option list following feedback from the Environment Agency. However, our range of supply side options covers a broad spectrum of option types, including: • Surface water enhancement e.g. reservoir enlargement • New surface water schemes

	• Water transfers • Licence trades • 3rd party transfers • Potable imports • New reservoir In the data tables for the draft plan, only our preferred demand side options were included. However, as part of the process to determine our preferred and best value plan, we assessed additional leakage and PCC activities, and these have been included in table 4 of the data tables for the revised draft plan.
In its final WRMP South Staffs Water should: clearly state the objectives of the plan and provide clear line of sight from the best value metrics to the plan objectives.	We have included these objectives in the summary of Chapter 2 of our plan. These objectives are: - Deliver a sustainable and resilient supply of water for both our household and non-household customers now and in the future. - Commit to reducing the amount of water we abstract from the environment over the lifetime of the plan in order to protect and enhance the natural environment in which we operate. - Identify the longer term uncertainties e.g. climate change, and, if required, provide adaptive pathways within the plan in order to ensure we can respond to future challenges. - Be acceptable and affordable for our customers.
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 are concerned that South Staffs Water has not considered a sufficient range of supply and demand options given the challenges it faces. Although the preferred plan includes	During pre-consultation, all of our groundwater options were removed from our feasible option list following feedback from the Environment Agency. However, our range of supply side options covers a broad spectrum of option types, including:

options that cover water needs between 2025 and 2050 only 17 options are selected and these are all demand side. We also have concerns that the lack of divergence between the options selected in the least cost and best value plans suggests there are insufficient options to give the decision-making tool the flexibility to optimise for alternative programmes for least cost compared to best value. South Staffs Water should address this in its final plan by providing a greater number, range and scale of options to its decision-making process, or by providing robust evidence why there are no feasible options that provide better value to the wider set of metrics compared to the options that are selected for the least cost plan.	• Surface water enhancement e.g. reservoir enlargement • New surface water schemes • Water transfers • Licence trades • 3rd party transfers • Potable imports • New reservoir In the data tables for the draft plan, only our preferred demand side options were included. However, as part of the process to determine our preferred and best value plan, we assessed additional leakage and PCC activities, and these have been included in table 4 of the data tables for the revised draft plan.
South Staffs Water relies on 61 Ml/d of drought measures as listed in its table 6. It is not clear whether these have been appraised against alternative water resources options and the drought measures are not listed as options in the data tables or included in the responses to our queries. In its final plan, South Staffs Water should clarify its approach to appraising the use of drought measures and how they compare to alternative options for balancing supply and demand. South Staffs Water should also consider how to manage the uncertainty presented by relying solely on demand side options.	We have added our drought options into table 5 in the updated planning tables we have submitted alongside the revised draft WRMP. We have also provided further information on what these drought options are in section 9.5.3, which is a new section for the revised draft WRMP. We have updated our target headroom to include uncertainty related to demand management options for the revised draft WRMP. We have also scenario tested our preferred plan to understand the impact if we only achieve 50% of our programme. This is covered in detail in section 10.6.
A total of nine third party feasible options were considered but none have been selected as preferred options. South Staffs Water should explain in its final plan why no third party options have been selected.	There are no third party options selected in the final plan as we do not need any supply side options once we achieve the demand management set out in the Environment Act targets.
The draft WRMP discusses catchment management options although the preferred plan does not appear to include catchment options that would provide a water available for use (WAFU) benefit. We remind the company that all options included in the preferred plan should provide some benefit to one or more components of the supply demand balance and South Staffs Water's final WRMP should explain how any catchment management options that are included benefit the supply demand balance.	Our catchment management work will not provide any direct supply demand benefit. We have included some information on this in our plan as this work will support our raw water quality and ensure we can achieve the baseline raw water availability into the future. We have clarified this in chapter 6.12.1.

The information South Staffs Water provided on options contained gaps concerning both the volume of water provided and its cost. For the final plan and PR24, we expect all options to be developed to the same level of detail in order to allow the decision making tool to select an unbiased preferred best value plan from the options available and for all option data to be completed to a high standard.	We have updated table 4 in the planning tables we have submitted alongside the revised draft WRMP. This now includes all costs and volumes.
The explanation around decision making is reasonable and demonstrates how the WRMP is linked to the WRW regional plan. We would like the final plan to clearly state its objectives and provide a clear line of sight from these to the best value metrics. There is no clear evidence what constraints have been imposed on decision making, why the company has imposed any policy/decision making constraints or whether these are in the interests of customers and the environment. There is no explanation of how sensitivity tests demonstrate that these constraints do not limit the cost benefit or value of the potential programmes.	We have provided additional detail on our decision making process for each of our demand management areas in section 10.1 of the plan. We have also added a new section, 9.8, which specifically details any decision making constraints such as customer views, affordability and financeability, and the impact this has had on the plan.
South Staffs Water has not referred to Ofwat's public value principles, although the plan adheres to most of the principles. We would like South Staffs Water to reference Ofwat's public value principles within its best value planning process in its final plan and provide narrative on how the principles have been used to inform its decision making.	We have included a new section in the revised draft WRMP, section 9.9, which details Ofwat's public value principles and how these have been reflected in our plan.
South Staffs Water has not produced an adaptive plan. This is because the preferred plan is shown to deliver a surplus under all the scenarios tested. The company sets out that it has tested its preferred plan against compound versions of the common reference scenarios, as well as a situation where only half the planned demand reductions are achieved. In response to queries, the company makes clear what the scale of these impacts are and sets out that they do not cause a deficit in the planning period. The company sets out a number of assumptions made in its plan, beyond those accounted for in scenario and/or sensitivity testing. Even if South Staffs Water concludes that alternative pathways are not required, the company needs to demonstrate in its final plan that scenario testing, including the common reference scenarios, has been used to identify low-regret investment that is required in all or most plausible futures.	We have updated section 10.7 of our plan to show clearly the potential adaptive pathway to achieve the enhanced environmental destination scenario. We have also provided more detail in section 10.6 on scenario testing to clearly articulate how these have been used to ensure our plan proposes low-regret investment in these possible scenarios.
The company should clearly compare the Ofwat common reference scenarios to the 'most likely'	We have provided the detailed information for this in section 10.6 of the

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. The company should also quantify the estimated impact on the expenditure requirement of: 1) planning based on the high scenarios for climate 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 those that meet both high and low planning needs in a non-adaptive way.	revised draft WRMP. Here we show clearly the cost impacts of the different scenarios.
As part of its further scenario testing, we expect South Staffs 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.	We have had discussions with our local Environment Agency team in order to determine a plausible "extreme low" scenario. However, the local EA team deemed that the BAU+ scenario is the lowest scenario they believe will be required, and therefore there is no lower scenario to test. We have included detail on our scenario testing in section 10.6. This shows that the environmental destination scenario is not driving additional investment in our plan. Our SDB position means we are able to achieve both the BAU+ and enhanced scenarios through the delivery of our demand management programme, which is in line with the Environment Act targets.
South Staffs Water has concluded that all its planned investments are required in all plausible scenarios, and therefore that its preferred plan meets our definition of the core pathway. We expect the company to present a core pathway in its final plan in line with the WRPG definition, which includes low-regret investment to meet future uncertainties and additional option value to allow further flexibility in the future.	In our revised draft WRMP, section 10.6 details the scenario testing we have done to test our plan and identify any potential future risks due to uncertainties. Section 10.7 then shows any alternative pathways we have identified as a result of this. These scenarios and alternative pathways demonstrate that there is no additional low-regret investment required to meet future uncertainties. We do highlight

	where there could be additional option value to allow further flexibility in the future. Section 10.8 is a new section that details the alternative plans a covers the differing elements.
The company has identified £99 million of enhancement expenditure relating to the delivery of its WRMP24 in the 2025-30 period. Over the 2025-50 period the company has identified a requirement for £204 million of enhancement expenditure. For this investment, South Staffs Water plans to deliver around 18 Ml/d of supply demand benefit in 2025-30. The company proposes to deliver benefits at a higher cost than other companies over this period. The company's enhancement investment in the 2025-30 period presents approximately 35% expenditure related to demand side improvements (excluding leakage and metering). South Staffs Water proposes to deliver demand side improvements (excluding leakage and metering) at a unit rate of 4.6 £m/Ml/d, which is significantly higher than the industry median of 0.7 £m/Ml/d. The company needs to demonstrate its costs are efficient in its final plan.	We have reviewed and updated our costs as part of work undertaken to update the plan between draft and revised draft. One element for this relates to the benefits seen when installing smart meters to a previously unmetered property. As we had shown metering as an enabler, rather than delivering a direct benefit, we had higher PCC programme costs to deliver the required savings. We have updated our view on this following feedback from Ofwat and the Environment Agency at consultation, and how utilised data from companies who have undertaken extensive smart metering campaigns in AMP7 (predominantly Thames Water and Anglian Water). By showing a benefit for each meter installed, our PCC programme costs have reduced as a result, which lowers the overall unit rate costs of the programme. We have also reviewed and updated our metering costs for the revised draft WRMP following additional industry benchmarking and extensive work with our supply chain, and this has also led to a reduction in costs. We have also reviewed our leakage programme following an update to our demand forecasts, and these updated costs are now reflected in the revised draft. We describe these in detail in section 10.1 of the plan. Updated costs for all demand management activities are included in the updated data tables submitted alongside the statement of response, and in section 10.1 of the revise draft WRMP.
Whole life unit costs are more reasonable when compared to the industry, South Staffs Water identify £188 million investment over preferred plans. But the	We have provided this information for each of the demand management

company should provide sufficient and convincing evidence that the preferred options being selected, across all areas of its plan, are best value in its final WRMP24 and ensure costs are reliable, efficient and appropriately allocated.	activities in the revised draft WRMP throughout section 10.1.
South Staffs Water included only limited information around bill impacts and did not provide sufficient detail of opportunities identified to enable co-funding or co-delivery, or investigation into commercial models. We expect further investigation of partnership opportunities for co-funding and co-delivery with stakeholders should be undertaken and set out in the final WRMP.	We have included a new section in the revised draft WRMP, section 10.11, which details the proposed bill impact. We also discuss here the opportunities for co-funding and co-delivery.
We expect all companies to use their WRMPs to show how they will meet long term water demand targets including: • halving leakage across the industry by 2050, in comparison to 2017-18 levels; • reduce per capita consumption (PCC) to 110 litres per head per day (l/h/d) by 20503. A further target is now set in the Environmental Targets (Water) (England) Regulations 20234 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	Throughout section 10.1 we provide more information on how our demand management activities will achieve this Environment Act target and the individual competent elements.
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, leakage, household consumption and non-household consumption.	We have included our overall profile against this target in section 10.1.4.4. Throughout section 10.1 we also provide more information on how our demand management activities will achieve this Environment Act target and the individual competent elements.
The company has looked at a limited range of demand management options and provides insufficient evidence for how it optimised its demand management strategies. We expect the company to explain and provide sufficient and convincing evidence for how the strategies were devised and how the preferred strategy represents the best value approach to meet a supply-demand balance in its final WRMP.	We have provided this information for each of the demand management activities in the revised draft WRMP throughout section 10.1. We have also included a new section, 9.6, which details our demand management optimisation process.
We welcome that South Staffs Water has set out it plans to reduce leakage by 50% from 2017- 18 levels by 2050 and that its proposed rate of reduction of 16.6% across the 2025-30 period exceeds its 2020-25 ambition.	We have included information regarding the different scenarios we reviewed for the leakage profiles in section 10.1.1 of the revised draft plan.

However, although the company tests two scenarios, both aim to achieve the same target reduction of 50% and the company does not test achieving other targets nor it is clear how the testing has influenced the selected target presented in the draft plan.	
The company chooses proactive trunk mains leakage reduction with a high cost for the near term (including for 2025-30). This is partially the result of the company assuming that some lower cost options require the smart metering rollout to be fully completed before they can start. This results in a leakage reduction enhancement expenditure unit cost of 4.6 £m/Ml/d for the 2025-30 period. This unit cost is eight times greater than that requested by the company at PR19. We expect the company to review its leakage reduction proposals and provide sufficient and convincing evidence it is presenting a best value solution based on efficient activity costs and optimum activity scheduling.	We have reviewed our leakage profiles and activities as part of the revised draft WRMP. We detail the outputs of this, and the cost impacts, in section 10.1.1. Trunk main leakage here is high cost due to the assumptions in the development. We discuss this specific element on page 117 of the plan. Our costing was based on some work undertaken at the end of AMP6 in our Cambridge Water region. Here we undertook a trunk main renewal programme on the A505 due to leakage volumes and frequency, which in turn delivered 0.5 Ml/d of benefit. Our trunk main approach for this WRMP was to identify similar opportunities and replicate this. Hence the higher cost due to long lengths of trunk main replacement. We have been reviewing this process over the last 18 months and now found there are no other trunk main large scale renewal projects that we can identify in our area. We have also used new technology in AMP7, such as satellites, which has enabled us to better pinpoint leakage and undertake localised repairs. As such, our preferred plan does not include the specific trunk main option identified (2021-001) and instead we continue to use our active leakage control (ALC) approach for trunk mains as well as regular mains and comm pipes. Therefore, trunk main leakage detection and repair is now incorporated into this activity.
South Staffs Water appears to have assessed the customer supply pipe repair or replacement (with and without smart networks) options but has not discussed its policy with regards to customer supply pipe leakage. We are encouraging companies to evaluate the benefits of a common industry approach to addressing leakage	We have included details on our policy, and the benefits of an industry wide approach, in section 10.1.1.

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 routemap to 2050 committed to an informed debate on customer supply pipe strategy by December 2022.	
South Staffs Water has set out it plans to meet the per capita consumption (PCC) target of 110 l/h/d by 2050. However, the company proposes a three-year average PCC increase of 0.5% across the 2025-30 period which shows lack of ambition in comparison with the 2020-25 period. We expect the company to justify its chosen glidepath for 2025-30 in comparison to 2020-25 in its final WRMP.	In our draft WRMP data tables, our PCC projections showed an uplift due to the Covid impact we have witnessed on household consumption. As a result, we showed 2025/26 at 132.5 l/h/d. By the end of AMP8, this had reduced to 128.9 l/h/d which represents a reduction over that period. However, that is an increase on our targeted end of AMP7 position as per our PR19 performance commitments. We had updated our demand forecast for the revised draft WRMP and the updated tables accompanying it now show us ending AMP7 (and starting AMP8) are our targeted position of 127.4 l/p/d. We have then updated our PCC profiles throughout the planning period and we see a reduction across AMP8 as planned. However it should be noted that the data tables represent a dry year scenario, whereas our PCC target is averaged over a 3 year period in order to provide a normal year number. We have included the normal year target of 127.4 l/p/d in table 2 which looks at NYAA, and then an uplift has been applied (8%) for the dry weather factor in table 3. This is why the starting position for PCC may still seem higher than our AMP7 target position. However, our plan shows us achieving 110 l/p/d in a dry year scenario by 2050. We detail the activities we intend to carry out to achieve this in section 10.1.3 of the revised draft WRMP.
We are concerned that in the draft WRMP data tables the company does not forecast to reduce non-household demand and, across its both operating areas,	In the draft WRMP, NHH demand stays static during AMP8 in the revised draft WRMP data tables. This is because we are

forecasts a 9.4%9 increase by 2029-30 based on its draft WRMP. In response to a query regarding demand values the company has confirmed that all demand numbers are being refreshed between draft and final WRMP to ensure they include the latest data available and therefore this may lead to some slight variations of this data as a result. We expect the company to set out and clearly justify an ambitious strategy for non-household demand reduction in its final WRMP. We also expect the company to explain how the revisions it intends to make to its non-household consumption trend have impacted the optimisation and best value option selection in its preferred plan.	proposing to fit enhanced meter technology in order to deliver demand reductions, and have assumed we would not see a benefit of this in AMP8. However, we have updated this following our engagement with other water companies who have rolled out extensive smart meter campaigns in AMP7, and now show this benefit starting in the first year of AMP8. As such, we show a reduction in NHH demand by 2029/30 and deliver the 9% reduction by 2038 as set out in the Environmental Improvement Plan 2023. We have also added additional NHH water efficiency into the revised draft WRMP, as detailed in section 10.1.3, in order to support this meter rollout and ensure we deliver 15% reduction by 2050.
The key drivers for the planning problem are described as being due to growth and long-term environmental destination. South Staffs Water has provided assurance that abstraction reductions are not double counted when licence capping is combined with environmental destination scenarios. We expect South Staffs Water to clearly explain the rationale for the chosen planning horizon in its final WRMP.	We have updated our environmental destination trajectory in the revised draft WRMP, and we detail this and the reasons we have chosen this, in section 6.11.

4.12 Strategic Panel & Committees

Consultation Comment	**Response**
The NHH market must be fully integrated into these plans [WRMPs] as business customers represent a significant opportunity to reduce demand and as the majority of NHH customers use water for the same purposes as household customers (taps and toilets).	In our draft WRMP, we included a 9% reduction in NHH consumption by 2038, aligned with the proposed target in the Environment Act. Since then, this target has been confirmed and we have also included additional NHH consumption reduction activities in our revised draft WRMP in order to support this work and achieve a 15% reduction by 2050. We have also proposed that both the smart metering rollout and water efficiency audits will be undertaken across both household and non-household customers in the same area, where this is

	appropriate e.g. for local businesses such as hairdressers, shops etc. We believe there are similarities between the requirements and efficiencies to be had by combining these activities in a geographical location. We will continue to work with retailers to enable this activity.
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 have included additional detail in our revised draft WRMP on our NHH consumption reduction plans and this can be found in section 10.1.3 of the main document.

4.13 Water Resources West

Consultation Comment	**Response**
As WRW we will continue to facilitate collaboration with the other regions, but this is dependent on the active involvement of the water companies. We therefore request that South Staffs inform us if the situation changes and transfers between South Staffs and other water companies need to be reconsidered. This means that, should transfers to/from South Staffs become available, we would need to work together in reconciliation to develop evidence that any transfers involving South Staffs can be included in the WRMPs of our members and the members of other regions as part of best value plans that their boards can assure. The regulatory timetable for producing the WRMP Statements of Response is relatively tight, so should South Staffs make the decision to promote an external transfer within its final plan we would ask that you: • provide us with clear and timely information. • take appropriate evidence based decisions. • include a clear articulation of timing, volumes and utilisation of transfers in your statement of response. We commit to facilitating the same in return from our other members and the other regions.	We are not proposing any changes to transfers in our revised draft WRMP.
Water Resources West has received lots of feedback on its emerging plan, and we are pleased that South Staffs has taken this into account in the production of its draft WRMP. Water Resources West is now consulting on its Draft Regional Plan and expects to receive feedback from regulators, councils, trade bodies, environmental	We have worked closely with Water Resources West (WRW) as we have developed our revised draft WRMP and fed all updates as a result of consultation feedback into WRW through the relevant workstreams e.g. Statement of Response

and community groups, businesses and individuals. As a core member of WRW, this feedback will be shared with South Staffs, and we expect South Staffs to take this feedback into account as it develops its draft WRMP and contribution to the final regional plan. We also request that South Staffs ensures that the feedback it receives during its draft WRMP consultation is shared with Water Resources West, and any changes South Staffs plans to make to its WRMP and options selection are communicated with WRW in order to ensure the regional plan remains consistent with the company's WRMP.	workstream, Environmental Destination workstream etc. We can confirm that the information in the regional plan will therefore directly reflect our revised draft WRMP. Through the WRW statement of response workstream, we have identified any feedback that is relevant to our WRMP and provided a response for the WRW statement of response, as well as an update of our proposed action as a result.

4.14 Waterscan

Consultation Comment	Response
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 including activities to reduce non-household consumption in line with the national targets i.e. 9% reduction by 2038 and 15% by 2050. Our plan will enable us to outperform both of these targets by delivering benefits early in the planning period. It is vital that we work with retailers to deliver these targets and we will continue to engage with our retailers in order to identify the best mechanisms for us to deliver these savings.
We are also keen for Wholesalers to consider and share their position on water neutrality.	We currently work with developers in order to incentivise and support water efficient developments. These include building to lower consumption targets e.g. 110 l/p/d, as well as encouraging water reuse, closed loop systems, sustainable drainage, greywater recycling and rainwater harvesting. Currently there are challenges in achieve true water neutrality on new developments, and we will continue to work with developers and the wider supply chain to explore these and support.
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	We have included more detail on our smart metering profile in our revised draft WRMP. For household customers, this can be found in section 10.1.4 and for non-

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.	household customers this is in section 10.1.3. In addition, we believe that by aligning these two programmes we will achieve efficiencies and maximise the benefits of community communications and engagement as a result.
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. 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. This again feeds into Section 2.4. 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 to price and/or data alone will not be enough to galvanise the changes needed for the majority of the market.	In our draft WRMP, we did not include any direct savings for installing a smart meter. However, following feedback from our regulators at consultation and through revision of the extensive work undertaken by other water companies in AMP7 in this area, we have updated this for the revised draft WRMP. We have assumed 13% demand saving for each smart meter installed based on the detailed findings from Thames Water's AMP7 smart metering delivery programme. We are proposing enhanced metering technology for all our NHH customers. We will support this through additional water saving activities on NHH e.g. water efficiency reviews.
We are supportive of South Staffordshire's plan for universal metering. However, please note that the deadline for reaching this target is not specified until the penultimate page of the Summary document (2035 under the preferred plan). It would have been helpful to clarify this in the six times it was mentioned in the document prior to this.	Thank you for identifying this. We will be updating our non-technical summary document to accompany our final plan publication and will ensure that we address this.
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	We have submitted several bids to the Ofwat innovation fund, including behavioural change reviews and installation of flow regulators. We were successful in a bid relating to identifying

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.	the value of water to faith communities, and we will be leading this work over the remainder of AMP7. In our sister company, Cambridge Water, we are working with developers on innovative measures to reduce demand of new developments, and already lead the way with our Eddington Development which achieves 80 l/p/d demand. We also have some additional innovative trials planned for AMP7 that will work across both of these regions.
There is a serious lack of consideration in the draft WRMPs over how the Plans will affect other 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.	The NHH consumption reduction targets we have in our plan are for delivery by ourselves through joint working with retailers and non-household customers. We aim to identify opportunities that provide mutual benefit to all. We will communicate all of our plans in more detail with retailers and non-householders, particularly relating to our metering rollout, so that all are aware and can feed into that process to ensure it is the most efficient and effective it can be. Through this process we will also identify and resolve any concerns from NHH customers.
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 proposing to implement the environmental destination abstraction reductions by 2040. This is 10 years ahead of the 2050 date outlined in the National Framework. We are committed to the long term protection of the environment and have prioritised these reductions based on where they will deliver the most benefit e.g. abstractions that could impact on designated sites. We believe we will be sector leading for the delivery of the environmental destination in our region.
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 provide detail on our plan to achieve net zero operational carbon emissions by 2030 in section 10.10 of our plan. We will continue to share our progress against this plan with stakeholders.

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.	We have included detail on our net zero operational carbon programme in section 10.10 of our plan. We have also provided additional detail in section 10.2 of the plan describing how we will deliver our proposed demand management targets.
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 change behaviours and sends the de facto message that high leakage is both acceptable and the norm (see Section 2.4.).	The national targets have been set through Government plans and legislation such as the Environment Act 2021, the Environmental Improvement Plan 2023 and the Government's recent publication entitled Plan for Water. We understand the feelings of our customers around leakage. We think that any messages that show the extent of what we consider to be very ambitious leakage targets and what we're doing to meet those targets might go a long way to helping customers to understand that we're doing everything we can to reduce demand from our side, but that we still need everyone to do their bit and reduce what they use.
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 (see Section 2.4.). The carelessness of Wholesalers dramatically undermines the credibility, integrity, and potential of any efforts to reduce water demand and wastage or to better protect the environment and this must change.	South Staffs Water is a clean water only company and therefore not responsible for the sewerage in our region. This is managed by Severn Trent Water. The water industry takes the management of sewer systems and the reduction of pollution incidents very seriously. The management approach to sewer systems and the plans for reducing pollution incidents are outlined in both the Drainage and Wastewater Management Plan, DWMP, (the waste equivalent to the WRMP) and Pollution Incident Reduction Plan for all Water and Sewerage Companies.

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 are still looking at these opportunities and will continue to develop these ideas before AMP8. At South Staffs Water we have several activities already underway in this space: - Sponsoring research PhD at the University of Sheffield - Joint bids to the Ofwat innovation fund relating to water efficiency activities - Club project working with other water companies and retailers to identify the best mechanisms to deliver NHH savings - Engagement in projects by UkWir, WRc, WaterUk and Waterwise We will continue to explore additional opportunities for collective projects such as this.
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.	We have been part of a club engagement project with other colleagues in the water industry to engage with retailers to identify how best to deliver NHH water savings together. This has looked at the different activities and opportunities including incentivisation. We will continue to work with retailers to build further on this.
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.	We are aware of the current public perceptions of the water industry at this time. We look to use our draft WRMP to provide reassurance and evidence that we are addressing the key challenges such as leakage, climate change and environmental protection, and are doing so in a way that is best value for our customers. We will continue to work with other companies in the sector, as well as WaterUK to help influence key areas.
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,	The targets set out in the Environment Act, the Environmental Improvement Plan 2023 and the Government's Plan for Water will all deliver a step change in performance and delivery. Through the commitments in our WRMP and the

so Wholesalers must not allow the current culture to seep into yet another planning cycle.	performance commitments we will have as part of our PR24 business plans, we will be able to demonstrate our delivery and the resulting benefits for both our customers and the environment.
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 reading or clear understanding. This undermines the quality and integrity of the whole consultation process. 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 are pleased to note that our plan is considered to be one of the easier plans to read. We have reviewed our revised draft WRMP to ensure it is as reader-friendly as possible, and made some formatting and order changes to help the plan flow more clearly. We have also reviewed the plan for jargon and acronyms and made changes where we have found these.

4.15 Waterwise

Consultation Comment	**Response**
We query the water efficiency costs in Table 16 which show minimal costs incurred after AMP8. We believe that there will need to be a further tranche of household visits before 2050 in order to maintain and enhance savings. We also believe that, with the roll-out of smart meters, a budget needs to be included to proactively engage with customers on their consumption through an app or digital portal.	We have reviewed and updated our water efficiency activities and spend in the revised draft WRMP. More detail on this can be seen in our data tables and in section 10.1.3.2 of the main plan. Currently there is little consistent evidence relating to the length of time behaviour change is sustained, even in the energy sector where this activity has been underway for longer. We assume that benefits recognised through our activities are sustained. However, we will monitor this performance, as we describe in section 10.2 and will utilise this information to update our assumptions for WMRP29.
Other areas where we think investment would be worthwhile include:	We have included costs in our plan to deliver the water efficiency savings required, and an element of this work involves communication and promotion of

- We would like to see fundings to support a campaign on leaky loos. One possibility would be to work on a collaborative campaign on leaky loos with other water companies, the BMA and Waterwise as recommended in our position statement. - We would encourage South Staffs to also include a campaign to raise awareness on dual flush toilet buttons. Research by ESW has found 20% of people incorrectly identify which is the small flush button in their own homes. - A number of water sector trials across the UK (Sussex, Affinity, NWL, UU) are finding that flow controllers can reduce consumption by around 30-64 litres per property per day. It would be good to see South Staffs including a programme to fit these devices alongside the meter as part of the metering roll-out or alternatively in all new build homes/on change of occupancy. As well as targeting new build South Staffs could also work with local authorities and housing associations to install them in social housing.	water saving devices and actions. We have undertaken campaigns on leaky loos through AMP7 and are doing some additional work as part of our household water audit programme to identify these further. We will continue to build on this in AMP8 and beyond. We were part of a collaborative bid for the Ofwat Innovation Fund relating to flow regulators, which unfortunately was unsuccessful. However, we have plans to continue with this work in AMP7, and if this is successful, we will continue to build on this through future AMPs.
We fully support the proposed universal smart meter roll-out to HH and NHH properties by 2035. 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. As highlighted above it is important that South Staffs include a budget to use the insights from the smart meters to engage with HH and NHH customers on water saving.	We have included costs in our plan to deliver the water efficiency savings required, and an element of this work involves communication of the data insights from metering to provide customers with information, advice and support to help make informed choices around their water usage. We will also deliver more targeted information and campaigns.
We are pleased to see that South Staffs Water recognises the potential contributions to demand reduction from government policies such as water labelling of water using products (not just white goods as referred on p81) and have included this in the baseline forecast. 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 with regards to new build development and retrofit and we would urge South Staffs Water to continue to work with Waterwise to advocate for more supportive policies.	We have included costs in our plan to deliver the water efficiency savings required, and an element of this work involves communication and promotion of water saving devices and actions. This would include water labelling.
We are pleased to see dWRMP24 plan recognise the recent policy and regulatory announcements around	We have included more information on this in our revised draft WRMP in chapter

reducing NHH water demand. It is also positive that a budget has been included in the plan to deliver savings in collaboration with retailers. This is not the case with many of the draft plans of other water companies. Whilst it is good to see that the government's 9% can be achieved through the South Staffs metering programme we believe that it is also important that government, water retailers, trade bodies and other players also collaborate to help achieve or exceed the 9% reduction and this could be flagged more clearly in the final plan.	10.1.3. We are also expanding our activity to reduce non-household consumption so that we deliver 15% reduction by 2050. We have further emphasised the importance of collaborative working and are supportive of the proposal to create a RAPID style approach for demand management, titled ARID. We believe that a national approach is required to ensure effective and efficient delivery of the NHH target to ensure clear communication and standardised approaches for retailers and our NHH customers.
A portion of the potential deficit in the South Staffs Water area is driven by future decisions on the type and location of future development. We are pleased to see the company plans to continue with its developer incentive scheme and will seek further reductions through support to schemes such as water neutrality and grey/rainwater reuse systems. Thames Water has a good existing example of an incentive scheme that does this.	We have seen the value of this scheme throughout AMP7 and are keen to continue and develop this as we move forwards. We have engaged with companies such as Thames Water to understand best practice and look to build on this.
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 on the diverse members of the South Staffs Water customer base.	We endeavour to ensure that all of our plans take into account our diverse customer base. We acknowledge the potential bill impact of our plan and have developed our support offering relating to affordability, as well as accessibility, through our development of our PR24 plan. Through our customer engagement, we have ensured we have included a wide range of customer backgrounds and situations to ensure our plan is considered and weighed against a diverse range of needs and preferences. We will continue to engage widely across our customer and stakeholder base to ensure all views are represented and understood in this plan and all others we undertake.

4.16 Defra further information request

This section has been added following a review of our statement of response and revised draft plan by the Environment Agency and Defra, and contains further information required by Defra in order to support the next stage of the WRMP process. We have outlined these requests below, including our response, details of actions taken as a result and the impact on our revised draft plan.

Information Request	Response
Use of transfer to Blithfield reservoir:	
South Staffs Water should remove the transfer of potable water into Blithfield reservoir from its baseline supply forecast. The viability of this option is not yet proven and so it cannot be assumed to be available.	We have removed this transfer from our modelling work. Upon re-running of the model, there has been no impact to the baseline DO. This is because this option is set up to only operate outside of a drought period – it is not a standard drought option to increase supply during a drought; instead it is used to help refill Blithfield reservoir over the winter period following a two year drought and therefore provides no DO benefit. In addition, when it is utilised in the model, it takes potable water from Hampton Loade which in turn reduces the output from this site by the corresponding transfer volume, leading to no impact on total DO available.
The company should continue to work with the Environment Agency to develop and deliver a trial for this transfer to provide clarity over whether it is viable to include in future WRMPs and drought plans.	We have disabled this transfer from our model in all scenarios and we will continue to work with the Agency to develop the agreed trial to determine the future requirements of the scheme, including permitting needs.
Take an adaptive planning approach and include an alternative plan:	
South Staffs Water should include an alternative plan to show the actions it will take (and when they will be triggered) should demand side options fail to deliver the savings planned. The company should review the methodology it has used for the scenario of only achieving 50% demand management. The methodology should include only achieving 50% of their planned leakage reduction as there is still considerable uncertainty around fully achieving leakage goals.	We have updated our 50% demand scenario to include 50% leakage reduction. As a result of the change to our outage allowance and by aligning our DI to our PR24 submission (outlined below), this now creates a deficit in 2029/30 which increases to -14.30 Ml/d by 2050 at the end of the planning period. We have no supply side options that can be developed before this date to meet this deficit as the shortest lead time we have is circa 5 years.

	We also have no further drought options that could be deployed. In addition, whilst we would look at increasing our demand management activity to address the shortfall, this is high risk in a situation where demand management is only 50% effective, and therefore not a robust solution to the issue. As such, we looked at a new option to temporarily change our levels of service leading to an increase in our baseline DO position. Our system is constrained by our 1 in 40 TUBs level, and so we looked at reducing this to 1 in 13 where the 1 in 200 drought level becomes the constraint. This provides an additional 9.29 Ml/d of baseline DO. As a result, our Valuestream modelling selects this option until 2036, where it then reverts this as the deficit increases above 9.29 Ml/d. It then selects supply side option 2.2.2.1 to resolve this deficit – this is the raising of the dam at Blithfield reservoir by 2m. This option has a lead time of 7 years and therefore the trigger point for this action is 2028/29, and performance will be monitored in the WRMP annual reviews to determine whether this adaptive pathway is required at that stage. In this scenario, in 2036 when the levels of service option would be reverted, we would return to our previous 1 in 40 year level of service for TUBs and we would also return to 1 in 500 year resilience across our system. This is compliant with the WRMP guidance which states systems must be resilient to 1 in 500 year droughts by 2040.
South Staffs Water should also progress with feasibility work on alternative supply-side options alongside the delivery of its demand management programme and include information about this in both its WRMP and Business Plan.	As a result, we will undertake feasibility of the Blithfield supply side option through our capital investment department in early AMP8 in order to be prepared for this scenario. We have also made representation to Ofwat to include the cost of this in our PR24 plan. We have updated section 10.6 (Scenario Testing) and section 10.7 (Adaptive Planning) to reflect this position, as well as our environmental assessments.

Review its outage allowance: South Staffs Water should review and consider increasing its outage allowance to a more appropriate level based on actual outage experienced in recent years.	Our outage allowance has been calculated using the industry standard methodology. However, we know that this provides a lower than average outage allowance when compared to the rest of the industry. Throughout AMP7 we have consistently ran at a higher level of outage than our WRMP19. It should also be noted that planned outage is required to ensure assets can be maintained, refurbished and upgraded to aid asset reliability and performance, and is a proactive tool to reduce unplanned outage, as well as improve drinking water and environmental compliance. Through discussions with the Environment Agency, we have increased our outage allowance from 10.1 Ml/d to 17 Ml/d. This is slightly lower than our outage outturn position in 2022/23 to reflect our ongoing activity to reduce outage, and equates to outage of 5.6% of our DI. This is more in line with our other operating region in Cambridge. We have adjusted the data tables to reflect this and updated section 6.5 in the plan document. We have also included more detail on our plans to reduce outage – our WRMP shows a realistic position for outage but we have a strong focus on ensuring this is as efficient as possible.
Include non-household accelerated metering: South Staffs Water has a programme to deliver household and non-household smart metering as part of the accelerated schemes process. However, the SoR states that the company will not deliver the non-household accelerated metering due to additional costs for the Fens Reservoir SRO (Cambridge Water part of the company) and supply chain issues. This is not satisfactory and the company should include its accelerated non household metering within its demand forecast. This will help it to achieve the Environment Improvement Plan (EIP) interim targets for demand.	Since the submission of our revised draft WRMP, we have updated our position on accelerated metering and will no longer be able to undertake accelerated household or non-household metering in AMP7. Acceleration of our metering programme would be unfunded work in year 5 of AMP7. As outlined, in AMP7 we identified the need to be joint developers of the Fens Reservoir strategic resource option, which is needed to provide circa 50% of the water to our Cambridge Water region in the 2030's and beyond. Both the Cambridge Water and South Staffs Water regions operate

	under the business plan meaning funding is determined and balanced across both regions. This AMP, we have struggled to absorb the Fens development costs as they were not accounted for within the Price Control. Our credit agencies do not recognise True-Ups in our ratings, therefore Fens Reservoir investment has put our financial metrics under significant pressure. It has further prevented us from accelerating this investment on metering through the Defra fund, as supporting another true-up funded investment was not possible. We believe that Fens is the best value solution, and therefore prioritized this investment despite the challenges it caused. We remain committed to our metering programme as outlined in our revised draft WRMP. We have discussed this detail with both Defra and the Environment Agency to explain our financial limitations for this workstream.
Adjust Water Industry National Environment Programme (WINEP) delivery dates in the plan: South Staffs Water should adjust row 7.2BL in the data tables to reflect the agreed WINEP delivery dates of 2026. Currently South Staffs Water's data tables show WINEP reductions occurring in 2030, however the agreed delivery date for reductions is 2026.	Throughout the AMP7 WINEP process, our understanding through engagement with the local area Environment Agency teams has been that the agreed WINEP delivery date of 2026 is for the licence changes to be delivered in an upfront permitting arrangement, with the changes to be implemented by 2030. This also aligns with feedback from other companies and the approach being adopted in other regions. We have already agreed the licence changes required with the Agency. However, the Environment Agency have not yet determined the timeline for the 15-year rolling average to be applied i.e. which year is year 1, and this has a significant impact on our planning and delivery. Following further discussions with both local and national Environment Agency colleagues on this topic since the receipt of this letter from Defra, the EA have agreed to alter the date in the WINEP programme to clarify that the implementation date for the licence caps is 2030

	and that up front changes to the licences must be agreed by 2026. This aligns with our revised draft WRMP and therefore we have made no further changes in this area.
South Staffs Water should also include the site name and licence ID for each licence change identified as part of their WINEP programme.	This detail was already included in the revised draft WRMP and can be found on page 74, table 18.
Include drought options as part of the best value plan: South Staffs Water needs to include drought permits and orders as options to ensure they have been through the options appraisal and best value planning process.	In our revised draft WRMP, we included drought permits and orders in our plan, as represented in the data tables in table 3, 4, 5 and 6. We also included a new section in the main plan document, section 9.5.3, detailing all of our drought permits and orders, the appraisal process and how this applies to these options, the options selected in the preferred plan and the reasoning for this selection. We have updated this section to make it clearer how drought options were included in the best value planning modelling and why these options are consistently chosen in this modelling as part of our best value plan.
Improve its leakage ambition: South Staffs Water meets long term and interim leakage targets. However, the company should challenge itself to plan for a greater leakage reduction in the 2025-30 period than it has proposed in the revised draft plan. For 2025-30, a significantly reduced ambition of 6.6% (annual average against 2019-20 baseline) is proposed by the company, compared to a forecast reduction of 14.7% for the 2020-25 period (based on WRMP24 2024-25 forecast and 2019-20 APR figure). The company should plan a more ambitious reduction over the AMP8 period.	Following submission of our revised draft WRMP in May 2023, we have been developing our business plan for 2025 to 2030, PR24. We have done some additional customer engagement as part of this development, and customers have clearly stated they want us to increase our leakage ambition in AMP8. As such, our PR24 plan includes an enhanced leakage reduction ambition for AMP8 of 15% - an increase of 8.4% from our WRMP proposal. The revised draft WRMP trajectory ensured we delivered the interim and final Environment Act leakage targets. As this increased rate of reduction in AMP8 would lead us to exceed the Environment Act interim targets, this is deemed as enhancement expenditure at PR24 and is

	dependent upon Ofwat supporting our business case for this activity and approving the additional funding we have requested to deliver this. We have updated the revised draft WRMP, including section 10.1.2 and the data tables, to reflect this PR24 ambition – however should this additional ambition not be funded by Ofwat in the final determination of PR24 (due December 2024), the plan will need to be updated to revert to the original ambition submitted in the revised draft WRMP which still ensures delivery of the Environment Act leakage targets.
Update plan accordingly with NAVs operating in the area: The company states there are no NAVs operating in their area. However, Ofwat's 'Register for new appointments and variations granted to date' suggests several sites in their area are served by NAVs. The company should use the above register to identify sites operated by NAVs in their area. It should then undertake environmental assessments for bulk supply transfers to these NAVs and update its SEA and HRA if any environmental impacts are identified. The company should also take account of bulk transfers to NAVs in their supply demand balance. NAVs are required to produce a statutory WRMP. This means that when ensuring alignment with regional and neighbouring water company plans incumbents should ensure alignment with the NAV plans. This means the transfers to each NAV should be described in the plan and contractual volumes should be set out in the planning tables. South Staffs Water should also ensure properties and populations served by NAVS are not included within the forecasts in the company plan going forward. This is to prevent double counting of demand components and also overstating supply. The company should ensure the volumes transferred to NAVS are recorded in the planning	We have undertaken this work and now have the comprehensive list of NAVs in our area. Since the start of the development of this WRMP, several appointments have been granted by OFWAT and we now have two licensed water undertakers in our area of supply: • Independent Water Networks Limited • Leep Networks (Water) Limited We have engaged with these undertakers to understand their planning details for each site within our area including number of properties, built out and occupation timescales and demand for water. We have updated section 2.7 of the revised draft WRMP and included a table outlining the details of each of the developments. As well as engaging on key topics within the WRMP we have also discussed drought plans, levels of service, water efficiency plans and messaging, joint customer communications and metering. We will continue to work with these organisations, and others that may be granted licences in our area, to ensure a consistent approach to these areas. We have also updated our planning tables as follows: - Added these individual bulk transfers to table 1g

tables. The company should work with the NAV companies to ensure alignment of assumptions e.g. number of sites, population, property and contractual volumes. We do not expect incumbents to forecast beyond the appointed sites set out in the NAV WRMPs i.e. new sites will be awarded but the incumbent will not know when and to which NAV. The company should use the WRMP cycle to update the figures and adjust forecasts accordingly.	- Table 3, line 5BL to include these as potable exports - Table 3, line 14BL to reduce the water delivered to households to remove the volume from these bulk transfers - Table 3, line 24.1BL to reduce the number of properties to remove the households served by NAVs - Table 3, line 39BL to reduce the population to remove those customers served by NAVs Our WRMP only includes developments that have been granted a licence as of 31/12/2023. Any future developments are included in our future baseline demand predictions which are based on local authority growth plans. We have reviewed the need for environmental assessments on these transfers and believe they are not required for the following reasons: 1. the NAVs are being supplied by SSW (i.e. are not providing water to SSW) 2. no specific construction is required by SSW i.e. the Developers connect into the existing SSW network (and any related construction is the Developers responsibility and hence any associated environmental assessments) 3. the demand associated with this is built into the SSW SDB baseline/scenarios and that as such, the environmental assessment will be undertaken on any option within the SSW preferred / adaptive plan that is used to support this bulk supply.
Feasibility of WRMP24 demand starting point: South Staffs Water's forecast demand (distribution input) starting position in 2025/26 is 20Ml/d below AR22/23 distribution input. This reduces our confidence that the company will achieve its 2025/26 starting point. This could put the company at risk of a planning deficit early in the planning period and make it harder to achieve its Government demand targets.	We have ambitious PCC improvement plans currently in place, as shared with Ofwat, the Environment Agency and Defra, in order to reduce PCC following the significant uplift we saw in this following the Covid pandemic. We have made significant reductions over the last two years of our improvement plan; however, we believe that there is a new baseline PCC position in our region due to our unique geographical

South Staffs Water must review the starting position for distribution input and other demand metrics including per capita consumption and non-household demand and provide evidence through a detailed action plan on how the company will achieve these significant reductions by 2025/26 and closely monitor the progress on delivery. It should report through the annual review process.	location. We know that more people are now hybrid working and working from home, and that our operating region acts as a commuter belt for Birmingham. As a result, we are seeing what we believe is a permanent uplift to household PCC which reflects this new normal working pattern and moves domestic consumption out of Severn Trent Water's region into ours. As a result of this, our DI is higher currently that our forecast at WRMP19. For our PR24 submission, we have included DI at a higher level than in the WRMP for AMP8 to reflect this. Following discussions with both Ofwat, regarding the need for alignment between the WRMP and PR24 submission, and discussions with the Environment Agency regarding ensuring our plan has a realistic starting point, we have now updated our data tables to align with our PR24 submission. This means that our 2025/26 final DI is now 324.56 Ml/d compared to our revised draft plan value of 305.09 Ml/d. As highlighted above, we have increased our leakage ambition in AMP8 from circa 7% to 15% which is also part of our ambition to reduce DI. When including this in the data tables, we now have a final plan DI in 2029/30 of 307.66 Ml/d compared to 292.16 Ml/d. Our plan continues to meet the interim PCC and all DI per capita targets in the Environment Act. In order to deliver 110 l/p/d our best value planning modelling has now included additional activity on innovative tariffs to deliver additional benefits in AMP11 and AMP12. We have updated the data tables and plan document to reflect all of these changes and their impacts e.g. on greenhouse gas emissions.

4.17 Additional Environment Agency recommendations

This section has been added following a review of our statement of response and revised draft plan by the Environment Agency and Defra and contains further recommendations from the Environment

Agency to improve the quality of our revised draft plan. We have outlined these recommendations below, including our response, details of actions taken as a result and the impact on our revised draft plan.

Recommendation	Response
Strategic Environmental Assessment: We suggest the company: - Ensures the effect characteristics identified within the methodology are carried through into the assessment. - Removes references to the 2019 NPPF and updates these with the 2021 version. - Updates the SEA to include definitions for the characteristics of effects.	The SEA ER states in Section 4.4. that the assessment of effects includes consideration of the bullets below which is as per SEA Regs and guidance. These 'effect characteristics' (as referenced in the SoR) have been considered and applied with professional judgement during the assessment process. They are documented where relevant and proportionate to the assessment. For example, 'short-term' is stated several times in the assessment of the options. However, we will add additional specific content and further reference in the supply option assessments to record these characteristics where appropriate. In the case of demand management options (which currently form the basis of the preferred plan); due to their nature, they typically present minimal significant effects. We can add a paragraph to explain this further in the SEA to clarify why the assessments do not explicitly state e.g. short, medium and long term effects and explain where these may factor. The references to the 2021 NPPF were indeed updated and when the hyperlinks are followed, they link to the latest NPPF. However, where the text displayed in the hyperlink is outdated this will be corrected. A further paragraph will be added to the report with respect to how the terms e.g. short, medium, long term apply in the case of the WRMP. • the nature of the potential effect (what is expected to happen); • the timing and duration of the potential effect (e.g., short, medium or long term);

	• the geographic scale of the potential effect (e.g., local, regional, national); • the location of the potential effect (e.g., whether it affects rural or urban communities, or those in particular parts of a water company area); and • the potential effect on vulnerable communities or sensitive sites.
Uncertainty with demand-side options: We suggest the company adds additional information to the methodology provided for headroom component D4 to explain how uncertainty in both its own demand-side options and uncertainty associated with Government water efficiency labelling of domestic goods has been included.	The D4 component is only applied to demand side options deliverable by South Staffs Water. For our demand management optimisation, we used water labelling (the timing of its implementation, if at all, and whether minimum standards are also included) as a range of scenarios. In each different scenario, we assessed the demand management options that we would need to deliver in order to achieve the Environment Act targets. We, along with other companies in Water Resources West and other regional planning groups, agreed to use the lower estimate of the water labelling without minimum standards. This lower estimate scenario assumes lower benefits so already includes some uncertainty. Also, since the publication of our revised draft plan, the Government has committed to the roll out of this scheme in 2025, thereby removing this element of uncertainty. We have a detailed note on the D4 development which will be included in an updated C1 appendix with the final plan.
Baseline water efficiency activity: We suggest the company provides additional information to explain how existing baseline water efficiency activities undertaken by itself and retailers operating in its area have been incorporated into the baseline demand forecast.	We have included some additional detail in section 10.1.4 of the final plan to provide the detail on this.
Supply-side options: For each feasible supply and transfer option, the company was asked to provide a description of the option including an appropriate schematic map or	We have developed this detail and these will be available as an appendix (T) that will be published with the final plan.

conceptual diagram showing the source of supply, the main operational features, the areas over which the option is to be implemented and any links or dependencies to other options. This information has not been included in the plan. The company has stated the information will be provided in time for the final plan. We recommend the company includes all the requested information for each supply-side option in its final plan as per Environment Agency guidance.	
Improvements to non-technical summary: The company were asked to update their non-technical summary to include infographics and to clarify the date universal metering is expected to be delivered earlier in the document. The company has stated this will be addressed for their final plan. We recommend the company update their non-technical summary to include infographics where possible and outline the planned delivery date for smart metering earlier in their final plan.	We have included additional infographics and outlined the planned delivery date for smart metering in our updates non-technical summary which will be published alongside our final plan.
Improvement to 'Context for the WRMP' table: We recommend the company references the links to relevant plans and advice notes provided by Historic England more clearly within the 'Context for the WRMP' table.	We have updated table 2 "Context for the WRMP" in the document to provided clearer reference to the advice notes by Historic England.
UK Water Efficiency Strategy to 2030: The company was asked to reference the new UK Water Efficiency Strategy to 2030 in their plan. This issue was not addressed in the company's statement of response. We suggest the company provides a response to the issue raised by Waterwise.	We have referenced the UK Water Efficiency Strategy to 2030 in table 2 "Context for the WRMP" of the document, as a plan that South Staffs Water inputted to and has incorporated into the development of our revised draft WRMP.
NCA: We suggest the company provides additional detail explaining the assumptions and caveats made in the NCA and of the qualitative assessments referenced.	Following a meeting with the EA on the 29th of January 2024, the NCA report will be updated to provide further clarity surrounding the assumptions and caveats in the report. An additional methodology for the qualitative assessments undertaken will also be added to the report.
NCA: We suggest the company revise the NCA to include a description of mitigation and justifications.	The NCA report will be updated to provide further descriptions of mitigations. Further detail will also be added on how the mitigations and caveats mentioned in the

	report were addressed, or reasons why they couldn't be addressed at this time (for issues such as local plans not being available).
Costs of leakage options: We suggest the company includes a narrative in the plan which justifies the best value decisions on new demand options selected. We suggest the company also reviews their planning tables and makes the necessary corrections and ensures consistency in business plans. Data gaps, errors and inconsistencies will inform Ofwat's Quality and Ambition Assessment tests as described in the PR24 final methodology.	We have undertaken a full review of our data tables to ensure there are no gaps, errors or inconsistencies for the final plan version. We have updated our data tables to reflect our business plan submission for leakage. In the WRMP, our trajectory for AMP8 showed a circa 7% reduction, however for our business plan we have increased our level of ambition to 15% across AMP8. We have duly updated our tables and the leakage section of our report to reflect this enhanced leakage ambition. However, as this increased level of reduction is deemed as enhancement spend, we await the final determination from Ofwat in December 2024 to confirm whether we will be funded to achieve this. If the determination does not enable this level of ambition, we will update our WRMP24 to reflect the PR24 position.
Metering costs: We suggest the company provides evidence to justify its metering unit costs through its WRMP and business plans. Ofwat will then consider the evidence and data presented as part of its cost efficiency assessment	Working with our existing supply chain and others in the market, we have benchmarked the difference between AMI and AMR costs. For AMR and AMI the cost of the meter, the fitting of the meter, and the smart meter infrastructure (including equipment and software which can universally read different meter types) are the same for both types. The major difference in costs between these two is based on the reading of the meters and the transfer of this data into a portal or depository. Our market feedback has two cost model examples for leading network providers: - £1,000-£4,000/network zone (set up cost) and £12/meter/year

	- £12,000-£18,000/network zone (set up cost) and £4/meter/year Assuming each zone covers 1,000 meters and fitting circa 30,000 meters in the region the additional cost is £390k-£660k (solely for this batch of newly fitted meters). In addition, the annual costs for these new meters are circa £60k-£120k compared to the minimal cost of AMR reading via existing tech and resources. Please also see below for additional benchmarking work undertaken on PR24 submissions across the industry.
Long term best value planning: We suggest the company provides evidence to justify its metering unit costs being higher than industry average through in its WRMP and business plans (as required to support smart metering enhancement – PR24 Final Methodology, Appendix 9, pg 103). Ofwat will then consider the evidence and data presented as part of its cost efficiency assessment.	We have undertaken some benchmarking across other water company PR24 submissions for metering (table CW7). This shows the average household unit rate as £349 compared to our unit rate of £195. Our unit rate is upper quartile in the industry and the lowest of the water only companies. We also have the 4th highest meter penetration proposed increase in AMP8 across the industry. Our assumption for the benefit recognised for each meter fitted is below average compared to the industry, but aligned with our neighbours Severn Trent Water, giving some confidence in our assumptions. There is significant variation in the costs presented by companies for NHH meters, with our costs above average. However, this wide range makes meaningful comparison difficult. Our costs are based on the higher level of complexity experienced with fitting NHH meters, in addition to the higher costs invoked fitting meters to NHH properties currently without a meter.

Working with retailers: We suggest the company includes additional details to explain the outcomes of the club project. We also encourage the company to continue working with MOSL and retailers on water efficiency ideas as they produce their 2024 business plan.	We have added additional details to chapter 10.1.3 in our final plan to provide more information on the club project and the additional NHH activities we have initiated since submission of the revised draft plan. Will are now part of the RWG Water Efficiency Group with retailers to help drive forward water efficiency initiatives. In addition, we are part of an Ofwat innovation bid with Waterscan looking at NHH behavioural change to deliver water efficiency. We are committed to continuing exploring these opportunities and working with MOSL and retailers to develop these further.
Smart meter data: We encourage the company to continue working with Everflow, Waterwise, MOSL and Waterscan, who were interested in your use of data, as you develop your SMART metering programme.	We will continue to work with these organisations as we develop our smart metering programme.
Smart metering grace period: We suggest the company either provide evidence that household demand drops prior to customers being billed by their SMART meters or factors the two-year grace period into their forecast demand reductions.	Installation of a household smart meter will provide accurate consumption data to South Staffs Water. We will quickly be able to identify high usage households and undertake both water audits (to identify wastage or fit water saving devices) and leakage detection on customer properties. This visibility of information and the resulting actions we will take as a result will lead to a reduction in consumption of these households, irrespective of whether the customer is being billed by their metering consumption or not. Companies that have already undertaken extensive smart metering rollouts, such as Anglian Water (as per their WRMP24 demand management appendix), have outlined that external (distribution loss and smart meter identified cspl) and internal leakage (plumbing losses) reductions form a significant part of their anticipated demand reductions from fitting a meter, rather than changes to customer behaviour driven by changes to bills.

	When rolling out our universal metering campaign, we will engage with the local community and provide water efficiency advice and campaigns – again, this will enable savings even where customers are not being billed using the meter.
We also suggest the company works with Consumer Council for Water to consider a one year grace period, rather than two years, as Thames Water has found this to be sufficient.	Our choice of a two-year grace period came from our customers during our engagement with them on our WRMP, and particularly in some of the deep dive sessions we undertook around smart metering. Our aim will always be to support customers to transition as soon as possible onto a metered bill. However, based on the level of deprivation in the South Staffs area and the current cost of living crisis, we believe it appropriate to start AMP8 with a two-year grace period, which we will review as time progresses to assess the suitability of reducing this.
Water Cycle Studies: A Water Cycle Study is currently being developed for Birmingham City Council and Sandwell and Dudley districts. The first stage of this study has been completed with input from South Staffs Water. However, there are differences between the forecast household growth figures presented in the Water Cycle Study and the companies revised draft WRMP. We encourage the company to continue to work alongside Birmingham City Council and Sandwell and Dudley districts, as well as other local councils, to ensure their final WRMP accurately reflects the forecast household growth in the area.	This water cycle study only incorporates a very small part of the South Staffs Water area, with most falling into Severn Trent Water's supply zone. We have worked with Birmingham City Council to validate our growth projections and we are confident through this that their plans in our area are represented. We will continue to work with local councils in our area as they develop and publish their local plans to ensure that our plan has the most up to date information.
Incorrect figure legend: The company have included a graph to show outage breakdown by site (Figure 2). However, the legend provided does not match the colours shown in the graph. We suggest the company updates the figure legend.	We have updated the legend to reflect the colours in the graph.

5. Environment Agency WRMP Evidence Report

Area of issue	Issue and evidence	Implications	Information or changes required	South Staffs Water Response
Recommendation 1: Ensure that there is a clear plan to achieve the proposed demand reductions and that it is deliverable.				
R1.1 Demand-side options	The plan does not contain detailed information about how SSW will deliver the preferred plan demand-side actions. We note that SSW is currently off-track in terms of delivering the demand-side actions in its current (2019) water resources management plan.	It is difficult to have confidence that SSW will deliver the proposed demand-side outcomes in the absence of detailed information on delivery. This has the potential to put public water supply and the environment at risk.	SSW should include detailed information in the plan about how it will deliver the proposed demand-side options and outcomes. SSW should also explain why it is no longer forecasting to achieve outcomes set out in WRMP19 for per capita consumption (PCC) and metering by 2025.	We have included section 10.2 in our revised plan which details how we will deliver the demand management activities, how we will monitor and report our performance, and what we will do if we are off track. We have also updated our demand forecasting for the revised draft WRMP and we now show we will be meeting our AMP7 targets for both metering and PCC.
R1.2 Adaptive planning	Linked to point R1.1 (above), SSW's draft water resources management plan does not contain a "Plan B" to show what actions it will take to protect the environment and public water supply should the preferred demand-side options fail to deliver the required water savings.	SSW's plan does not clearly set out the triggers and actions the company will take should the demand-side options fail to deliver. This has the potential to put public water supply and the environment at risk.	SSW should take an adaptive planning approach and include an alternative plan to show the actions it will take (and when they will be triggered) should demand-side options fail to deliver the savings as planned. SSW should progress with feasibility work on alternative supply-side options alongside the	We discuss how we will deliver the demand side options in section 10.2 of the revised draft WRMP. We have tested a scenario, shown in section 10.6, which looks our demand management activity only achieving 50% of the projected savings. In this scenario, we do not have a deficit in the planning period

	Alongside this, we recommend SSW should be doing feasibility work on potential supply-side options in the short-term so that they are ready to be implemented if the demand-side options fail to deliver. This feasibility work will likely need to be included in the company Business Plan for Price Review 2024 as well as in the WRMP.		delivery of its demand management programme and include information about this in both its WRMP and Business Plan.	and do not require and adaptive plan for this. We share the details of this in sections 9.6, 9.7 and 9.8 in the revised plan.
R1.3 SMART metering	SSW's draft plan includes the assumption that SMART metering (in isolation of other related actions) delivers zero benefit in terms of customer water savings. This assumption does not appear to be correct based on evidence of SMART meter trials and delivery elsewhere in the country. SSW's SMART metering assumption also means there is a lack of clarity in the plan around how future SMART metering forms part of the preferred best value plan.	SMART metering is not adequately considered in SSW's options appraisal and best value planning.	The company should re-consider the assumption that SMART metering delivers zero benefit and take SMART metering options fully through its options appraisal and best value planning.	Following this feedback, and similar from Ofwat, we have engaged with other companies who have an extensive smart metering rollout programme in AMP7 and detailed information on the benefits that can be recognised from the installation of smart meters. We have updated our assumption so that installing a smart meter into a previous unmetered property now saves 13% per person per day. We discuss this in more detail in section 10.1.2.

R1.4 Uncertainty associated with demand-side options	Despite the draft plan preferred outcomes being wholly on the demand-side, SSW has chosen not to include any uncertainty around delivery of demand-side options in its target headroom assessment.	Target headroom is under-estimated due to the exclusion of uncertainty in delivery of demand-side options (headroom component D4). This means the supply demand balance in the draft plan is slightly too high.	SSW should include an assessment for headroom component D4 (uncertainty associated with demand-side options) in its plan. This should include uncertainty in both its own demand-side options and uncertainty associated with Government water efficiency labelling of domestic goods.	For the revised draft WRMP, we have now included an assessment for headroom component D4 in our target headroom calculation. We articulate this in section 7.1 of the revised draft WRMP.
R1.5 Non-household demand forecasting	SSW does not present in its plan an adequate understanding of its non-household customer base. 80% of non-household properties (accounting for 45% of total non-household consumption) are put into the "unclassified" Standard Industry Classification category in the draft plan. This is not a sound footing for an adequate future non-household forecast by sector (as is required in our guidance).	SSW's non-household demand forecasts are likely to be inaccurate.	SSW should do further work to better understand its non-household customer base and then improve its non-household demand forecasts.	We employ the services of Artesia Consulting Ltd, who are regarded as industry leaders in non-household consumption forecasting and employs industry best practice. It also has large amounts of relevant data in its data warehouse gathered over many years of working within the Water Industry. The non-household retail sector has undergone a transformation with the introduction of retail competition. Artesia have observed a change in data quality and consistency since the change in 2017, which has complicated the

				modelling and has increased the uncertainty around the demand forecasts. To mitigate this Artesia have included these factors in the scenario and uncertainty modelling. The basis of the none-household forecasts are taken from the base year and historical distribution input and metered consumption reports, from both the retail market and the Company's own billing records. We have recently recommissioned Artesia to prepare the update to the Non-Household consumption forecasts and we are working with retailers in our area to improve the quality of this information.

R1.6 Non-household demand forecasting	It is not clear from the draft plan whether the company consulted or engaged with retailers of water to non-household customers in developing future non-household demand forecasts. This is a regulatory expectation as set out in our guideline.	SSW may not have engaged with retailers when developing its non-household forecast. This (along with R3.5 above) reduces our confidence in the company forecasts and plan.	The company should consult and engage with retailers of water to non-household customers in order to develop improved non-household demand forecasts.	Artesia employ a number of methods in gathering 3rd party data such as purchasing Oxford Econometrics data reports and population growth forecasts. As detailed in R1.5 above, we are also working with retailers to improve the quality of the data that both organisations hold in order to improve this area.
R1.7	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.	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.	The company should consider the assessment of smart metering for all non-households (if it has not already done so).	In our draft WRMP, we stated that we would deliver enhanced metering solutions for all NHH customers by 2035. In our revised draft WRMP, we have added to this through the delivery of water efficiency audits and propose to progress our discussions with retailers to help deliver water efficiency messages and support. This follows a club engagement project that we were part of with several other water companies where we engaged with retailers to understand how we can work together best to deliver these outcomes.

				Here we also explored incentive mechanisms and we are committed to continuing these discussions with retailers and across the industry. We describe this in section 10.1.3.
R1.8 Baseline water efficiency activity	SSW's plan does not clearly describe the existing baseline water efficiency activity undertaken by itself and by retailers operating in its area. The plan does not describe clearly how these activities are incorporated into the baseline demand forecast.	There is a lack of clarity in the plan about how existing water efficiency activity is factored into the baseline demand forecast.	SSW should update the plan to include information about its (and retailers) baseline water efficiency activities and how these are incorporated into the baseline demand forecast.	We have included additional detail on this in section 10.1.2 of the plan. Here we detail the work we have carried out in AMP7, particularly post Covid, and how this has been built on for AMP8 and beyond.
Recommendation 2: Ensure the supply forecast is accurate.				
R2.1 Deployable output assessment	SSW is over-stating its baseline deployable output by 8.9 Ml/d in the draft plan. Evidence for this can be found in both Table 9 in the main plan document and in the supply forecast technical appendix. Both clearly show that SSW's deployable output is constrained by its level of service for temporary use bans (1 in 40 years) rather than by the frequency of hitting its emergency	SSW is over-estimating its baseline deployable output and hence its overall supply demand balance by almost 9 Ml/d according to information presented in the draft plan. This presents a risk to both security of public water supply and the environment.	SSW should ensure that its deployable output is accurate and allows it to achieve all of its customer levels of service promises.	We have undertaken additional modelling since the draft WRMP submission relating to our deployable output assessment. For the revised draft WRMP, and in the data tables, we have now included our level 2 service DO as this is the constraining factor, not the level 4 service of emergency drought orders as we had included. We have also updated this value to ensure that it does not include

	drought order triggers. However, SSW has chosen to use the deployable output constrained by emergency drought orders as the basis for its supply forecast and supply demand balance. It is clear this deployable output cannot be met whilst maintaining the company's temporary use ban level of service.			demand side benefits to ensure we are not double counting the options in table 3b. As a result of this, and other changes detailed in R2.2, our baseline DO assessment before forecast changes is 339.22 Ml/d, which is a reduction of 11.09 Ml/d (from 350.31 Ml/d) from the draft WRMP.
R2.2 Deployable output assessment	Based on feedback received from the company dated 26th January 2023, we have established that SSW has included in its deployable output assessment the benefit from a time limited licence known as the “River Trent recirculation” licence. This element of the licence is due to expire on 31st March 2023 and so should not be included in the baseline supply forecast of a plan starting in April 2025.	SSW has over-estimated its supply forecast by including the benefit of a time limited licence due to expire in March 2023.	SSW should remove the Trent recirculation abstraction benefit from its supply forecasting. SSW should decide whether it intends to include a potential future option to re-instate this abstraction and (if so) take it through the options appraisal and decision-making process.	We have undertaken additional modelling since the draft WRMP submission relating to our deployable output assessment. As a result, we have removed this licence from our baseline modelling, which contributes to the reduction in baseline DO to 339.22 Ml/d.

R2.3 Deployable output assessment	Section 6.4.1 of the SSW main draft plan document states that the transfer of potable water into Blithfield Reservoir is included in the supply forecast modelling. This is the subject of ongoing discussions between SSW and ourselves. Our view is that this should be removed from the baseline supply forecast given that trials into its viability have not yet happened. Once SSW's trial of this option has happened then the company will have clarity over whether it is a viable option to include in its WRMP and drought plan or not.	SSW is over-stating its supply forecast due to the inclusion of an option that has not been trialled and proven to be viable.	SSW should remove the potable transfer into Blithfield Reservoir from its supply forecast. SSW should undertake the trial of this option as quickly as possible in order to have clarity for its planning (WRMP and drought plan).	We have chosen to keep this option in our modelling. This is because this option was used in the dry weather of 2018 and achieved the volumes we have attributed to it in our planning. We are working with the Agency to progress the upfront activity required for a trial, which must be when the reservoir is at 50% or less.
Recommendation 3: Ensure the delivery of Environmental Destination and Water Framework Directive objectives.				
R3.1 Licence changes required under the Water Framework Directive	We have recently agreed with SSW the changes to its abstraction licences that are required to protect and improve the environment driven by the Water Framework Directive. Separate to its water resources management plan, SSW has recently (8	SSW may not be fully accounting for the licence changes required under the Water Framework Directive. This has the potential to put both public water supply and the environment at risk.	SSW must update its supply forecasts to include for the current deployable output impacts of licence changes that are required to meet Water Framework Directive outcomes.	Since submission of the draft WRMP we have now agreed the licence changes with the local area EA team. We have included the detail of our licence changes in a new section in the revised draft WRMP – 6.10. Here we detail the impact these licence changes have to our

	December 2022 and 25 January 2023) shared information with us that shows the company is under-representing the impact of these licence changes in its draft plan by approximately 4 Ml/d. From the information SSW has provided to us, we understand this is because the sustainable abstraction changes included in the supply demand balance is based on the 2019 deployable output values rather than the updated draft 2024 plan deployable output values.			baseline DO. As our peak licences and annual average conditions have been unaltered, we would still have the same licence capacity in a drought as we do have now. We would have to ensure we meet the new 15 year condition which would mean reducing our abstraction at several sites over future years if we did this. Therefore we have updated 7.3BL in the data tables to ensure the long term impact is correctly reflected. It should be noted though, that in a year where we would experience a 1 in 500 drought, we would have an additional 18.67Ml/d available DO to us as we utilise our peak licences.
R3.2 Water Framework Directive and groundwater licences	The licensing approach for groundwater sources previously agreed with the company is to cap groundwater licences at a 15-year rolling average aggregate between 2030 and 2035. If the company's annual abstraction return data shows that abstraction	There is a potential risk to security of supply and the resilience of its network if the company must reduce annual abstraction at numerous sources.	Ensure the agreed WFD No Deterioration baseline rates (to cap groundwater licences at a 15-year rolling average aggregate) has been included in the deployable output modelling to prevent a security of supply issue when the aggregate limits come into force.	Please see detail in R3.1 above. We have updated 7.3BL in the data tables to ensure the long term impact is correctly reflected. It should be noted though, that in a year where we would experience a 1 in 500 drought, we would have an additional 18.67 Ml/d

	is above the 15-year average aggregate, in the first year of operation after the cap has been applied, the company will need to significantly cut back on the actual annual abstraction volume in order to not breach the 15-year condition and to meet the WFD regulation obligations.			available DO to us as we are able to utilise our peak licences.
R3.3 Environmental destination	Appendix F of SSW's draft plan is a Water Resources West (WR West) document that presents environmental destination information at a relatively high level.	There is a lack of transparency in the plan about how SSW has arrived at the environmental destination figures presented. This risks challenge by third parties and stakeholders that the environment will have sufficient protection from public water supply abstraction.	To improve transparency and confidence that SSW is planning for an appropriate environmental destination, SSW should update the plan to include detailed licence-by-licence assumed future changes driven by both the "BAU+" and "Enhanced" environmental destination scenarios. SSW should continue to work with us to refine and improve its environmental destination information, including identifying changes for the short, medium, and longer-term and demonstrating how these meet statutory requirements.	We have updated section 6.11 to provide the detail of the changes at a licence level for both BAU+ and Enhanced scenarios.

R3.4 Environmental destination	SSW's supply demand balance and available options suggest the company could achieve the environmental destination outcome sooner than 2049/50. However, the company does not appear to have considered speeding up the full delivery of the environmental destination as a scenario in its draft plan. The timescale and decision making for environmental destination is not fully explained to demonstrate compliance with environmental legislation.	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 haven't demonstrated appropriate decision making around the pace of environmental destination delivery. Therefore, there is a potential prolonged risk to the environment. SSW has not demonstrated that the environmental destination outcomes cannot be achieved sooner than 2049/50. Delivery of the environmental destination appears to rely on delivery of demand management options, if these are not as successful as predicted, environmental improvements will be delayed and statutory environmental targets are likely to be missed. Delaying environmental destination can impact resilience by:	The company needs to explain the timings of abstraction reductions under the environmental destination to demonstrate that the plan meets the requirements of the Water Environment Regulations 2017 and Conservation of Habitats and Species Regulations 2017. If any changes are not planned as quickly as feasible, the company will need to justify why abstraction reductions cannot be delivered sooner. SSW should include a scenario (or scenarios) in its plan to demonstrate how it could achieve the environmental destination before 2049/50. The revised plan should include alternative options to ensure statutory environmental targets are still met should delivery of demand management not be as successful as predicted.	We have reviewed the trajectory for the delivery of the environmental destination abstraction reductions for our revised draft WRMP. In our preferred plan, we now achieve the target reductions by 2040. We have described why this is our new delivery date and our prioritisation for reductions in section 6.11. Section 10.6 details our scenario testing of the plan, particularly for reduced demand management. As we still maintain a positive supply demand balance in the planning, there is no impact to the delivery of these reductions in this scenario.

		a. limiting the opportunity to improve the environment and means that any benefits will not be realised until later. b. diminishing the ability to spread the cost of implementation over a longer period, leading to potential significant future hikes in customer bills. c. facilitating the continuation of an approach that requires short term interventions that increases the risk to the security and cost of supply.		
R3.5 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 been made to their Environmental Destination since the national Framework was published. The EA's Long-Term Water Resources Environmental Destination, Guidance for Regional Groups and Water	Where the company haven't demonstrated the journey from the National Framework suggested sustainability reductions to the reductions they present in their plan (including which sources have been screened out and why) this limits the transparency of the plan and risks 3rd 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. The company should include the details of those sources that have been screened out for requiring sustainability changes including licence, location, and reason for screening out.	We provide more detail on this in our proposed licence changes in section 6.11. The only sources not included in our process are our two surface water sources. This is because Blithfield reservoir is an impounding reservoir and any additional "top-up" abstraction from the River Blithe is already protected through a HOF on the River Blithe and another HOF on the River Trent. For our River Severn works, our abstraction here is already regulated through the River

	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.			Severn Regulation which provides protection.
R3.6 Detail of environmental destination information in the plan	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 output changes • • the timing of the reduction • • the location • • the reason for the reduction	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 of the NFWR. The company has provided DO reduction by water resource zone in the planning tables however does not say what environmental outcomes they expect to achieve.	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 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	We have updated section 6.11 to provide the detail of the changes at a licence level for both BAU+ and Enhanced scenarios. In our preferred plan, we now achieve the target reductions by 2040. We have described why this is our new delivery date and our prioritisation for reductions in section 6.11.

			explained. Where appropriate this should include: - Chalk streams - SSSIs covered by the Wildlife and Countryside Act 1981 Sites designated under the Conservation of Habitats and Species Regulations 2017	
R3.7 Inclusion of catchment and nature-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 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."	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 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.	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 pilot schemes implemented to test and understand the potential benefits.	We have included additional detail in section 6.11.1 describing the extensive work being undertaken at Water Resources West to identify additional catchment and nature based solutions that we can incorporate with our WINEP programmes through AMP8 and beyond.

Recommendation 4: Review the assessment of its outage allowance.				
R4.1 Outage allowance	Poorly justified assumptions lead to your outage allowance reducing from 20.9 Ml/d (SSW's quoted outage model run 9 result) to 10.1 Ml/d (model run 12) on which the supply-demand balance is based. We note that you have recently been reporting outage experienced levels of more than 20 Ml/d in your annual reviews.	SSW's supply-demand balance is likely to be overly-optimistic by about 10 Ml/d due to the outage allowance being too low.	SSW should review its outage allowance and either provide a clear justification for reducing it from approximately 21 to 10 Ml/d or increase the allowance to a more appropriate level.	Our annual reviews include planned outage. Our data tables plan for a 1 in 500 year drought. As per our drought plan, we would halt all planned work once we are nearing level 2 of our drought plan, and therefore the outage assessment is lower in our data tables as it takes this into consideration. We have provided more detail on our outage allowance in section 6.5 to provide more evidence regarding our choice. Our WRMP24 outage allowance is also higher than that at WRMP19.
Recommendation 5: Address the issues that have been raised concerning the Strategic Environmental Assessment (SEA) report.				
R5.1 SEA	The SEA has assessed feasible options (which in part make up alternative options) as well as preferred options. The feasible options have followed the proposed methodology. Section 5.3 sets out how the SEA findings for the feasible options have been used as inputs to Multi-Criteria	This issue presents a significant compliance risk. The overall effectiveness of the plan is at risk without an assessment of plan alternatives and a clear understanding of why the preferred plan has been chosen in light of alternatives. Without the assessment of all plan alternatives, the SEA does not comply with the SEA	SSW must demonstrate that all plan-based alternatives have been assessed, which includes a least cost and best for society and environment. A more detailed summary needs to be provided to demonstrate why the 'best value' plan has been selected.	At draft plan stage, we included the demand management targets we expected to be confirmed in the Environment Act. By achieving these, there was no supply demand deficit. These targets have now been confirmed and therefore we have to include the delivery of these in our plan. As such,

	Analysis (MCA) detailed screening, scenario testing and, selection of the preferred programme of options. This makes it very clear how the preferred options have been selected. The EA requires that the Best Value, Least Cost and Best Environmental and Social alternative plans are considered in the SEA. Despite this, the Environmental Report does not consider alternative plans. Section 6.4 states 'The deficit for any reasonable alternative scenarios is still resolved through the demand side options alone and hence no further cumulative assessment has been undertaken for alternative plans as they are similar to that of the preferred plan'. The justification for the arrival at the 'best value' preferred plan is weak.	Regulations. There is potential for legal challenge if all alternative options have not been assessed or the plan/SEA cannot fully justify why the preferred option has been chosen and whether the same outcomes could have been achieved with less harmful alternatives.		we still have no supply demand deficit in the planning period and therefore no alternative plan that includes supply options or variations of our existing options. We have included additional information on how we determined our best value demand side options and optimised our programme in section 9.6, and further specific information through chapter 10.1. Our section 10.7 on Adaptive Planning outlines our least cost and best social and environmental plans. Section 6.4 of the SEA Environmental Report has been updated to further reflect this position.

R5.2 SEA	Appendix F and G set out the assessment matrices for the feasible and preferred options. These aren't detailed and only include a significance score with no justification. The assessment of both feasible and preferred options have been split into construction positive and negative and operational positive and negative. The summary within the ER of feasible options is thorough, albeit difficult to follow at times, however, the summary of the preferred options is vague and lacks details. The assessment of feasible options seems well justified and the identification of significant effects (positive and negative) seem appropriate. Limited details on the three preferred options has been provided and the assessment summaries are vague, however, as only demand management options have been taken forward, this may well reflect their	The poor application of the method and omission of transboundary effect poses a significant compliance risk and could mean that there are significant effects that haven't been identified within the SEA.	The assessment should ensure that the proposed method is pulled through into the assessment. This includes identifying effect characteristics. Further clarity should be provided in the Environmental Report to demonstrate no significant cross-boundary conflicts or issues that could affect the approval and Clarity should be provided as to whether Appendix P8 forms part of the Environmental Report and should therefore be referenced and read as part of the assessment.	Detailed SEA matrices with further commentary and justification on assessment outcomes were published as separate Appendices to the Draft WRMP24 at consultation i.e. Appendix P8: Draft WRMP24 SEA Appendix 1 (feasible options) and Appendix P9: Draft WRMP24 SEA Appendix 2 (preferred options). For the rdWRMP24 we have now incorporated these detailed SEA matrices within the SEA Environmental Report i.e. Appendix F (Feasible options assessment matrices) and Appendix G (preferred plan options assessment matrices). The updated SEA Environmental Report Appendices F and G supersede Appendix P8 and Appendix P9. Appendices P8 and P9 will be removed. Transboundary effects have been considered throughout the assessment process however the locations of the

	limited impact. Despite effect characteristics being identified within the methodology, these have not been carried forward into the assessment. Most notably for the feasible options, there have been no identified potential transboundary effects. Appendix P8 (Appendix 1) does include some further details on the options assessments, however, there is no reference to this appendix within the ER, nor does the appendix have a title page. The appendix has been included on South Staff's consultation page. It's unclear whether the reader should be signposted to this appendix.			feasible options suggest transboundary effects would be unlikely. There is more information and commentary on the option-level assessments in the SEA matrices (Appendices F and G). It is worth noting that there are no supply-side options in the preferred plan. Transboundary effects of the rdWRMP have also been considered through the cumulative assessment (Section 6.5) and this has been updated to reflect the publication of neighbouring water company and regional group WRMPs/Regional Plans.
R5.3 SEA	Appendix B outlines responses made by Water Resources West to comments made by statutory consultees on the SEA Scoping Report for the Water Resources West Regional Plan (WRWRP) and the component	There is uncertainty and a lack of clarity around how regulator comments at the scoping stage have been addressed in the environmental report and WRMP. This could make the prediction of potential significant effects more	Tables in Appendix B of the Environmental Report should be updated to signpost where comments received from the statutory consultees have been addressed within the WRMP and the SEA Environmental Report. This will ensure that	To ensure the methodologies were aligned across water company plans within WRW, a combined scoping report was produced and consulted on, along with individual appendices for each water company. All the comments received as part of this

	WRMP24s. Section 1.4.4 of the Environmental Report states that the Scoping Report for South Staffs WRMP24, as well as the WRW Regional Plan, were issued for consultation together in April 2021. Method statements for the SEA, HRA and WFD assessments were also issued to consultees. Appendix B summarises responses to comments made by Cadw, the Environment Agency, Natural England and Natural Resources Wales on the SEA Scoping Report. These comments are primarily geared towards the regional plan rather than the WRMP itself. It is therefore not always clear from the responses whether they have been addressed within the SSW WRMP SEA or the WRW SEA. Suggestions from the EA on inclusion of documents within the PPP review haven't been included.	difficult and / or potentially result in non-compliance with national policy objectives around leaving the environment in a better place, improving resilience to drought and minimising interruptions to water supply.	all comments have been adequately addressed.	process fed into the drafting of the Environmental Report and any relating to a specific water company were included in their respective report(s). Only comments received in relation to the SSW environmental assessments are included in Appendix B. A column has been added to these tables to highlight where in the Environmental Report the comments have been addressed. In addition, we have reviewed the comments received at the scoping stage and ensured any recommended policy/plans/programmes have been captured in Appendix C and reflected on throughout the assessment.

R5.4 SEA	The main aims and content of the draft WRMP are outlined within the Environmental Report. The WRMP doesn't include any overarching objectives, hence the SEA does not include these. Without a clear understanding of the plan's key objectives it is difficult to ascertain the appropriateness of the SEA objectives.	The lack of a clear outline of the main objectives in the WRMP makes the SEA not fully compliant with point 1 of Schedule 2 of the SEA regulations. However, this omission relates more to the main WRMP document rather than the SEA Environmental Report.	The WRMP must be updated to include plan objectives which then should also be included within the Environmental Report.	We have updated the revised draft WRMP to include our objectives and these are shown on page 16 in the chapter 2 summary. They are: - Deliver a sustainable and resilient supply of water for both our household and non-household customers now and in the future. - Commit to reducing the amount of water we abstract from the environment over the lifetime of the plan in order to protect and enhance the natural environment in which we operate. - Identify the longer term uncertainties e.g. climate change, and, if required, provide adaptive pathways within the plan in order to ensure we can respond to future challenges. - Be acceptable and affordable for our customers.

				Section 1.3.3 of the Environmental Report has been updated to include the key objectives for this plan.
R5.5 SEA	The future baseline information is generic and applied at a regional scale rather than using information specific to SSW's supply area. For example, flooding is focussed at the regional scale, but it would be preferable to identify areas of significant flood risk within the WRMP operational area too. Old references to the 2019 National Planning Policy Framework (NPPF) should be removed and updated with the 2021 version of this.	Potential risk of not identifying and understanding the uncertainty of all issues in the future baseline and lack of longer term projections may affect decision making and the development of meaningful and robust objectives, solutions, and opportunities within the WRMP. Without considering how the local baseline will evolve in the future, it is not possible to properly assess how the implementation of the plan will affect it and there is a risk of the SEA not properly taking into account matters that are locally relevant and important.	The future baseline information should be made more specific to the WRMP supply area itself (for example on flood risk). References to the 2019 NPPF should be removed and updated with the 2021 version.	The predicted future environmental baseline aims to consider the future environmental changes to the baseline in the absence of the proposed WRMP. There are many challenges around this as the WRMP includes longer-term planning horizons (from 25 to up to 100 years for some plans) and there is considerable uncertainty around longer term changes to policies and plans, climate change and future land use etc. It is difficult to be area-specific with some of these topic areas as the challenges faced are often applicable to a wider area and there are limited data available at this level of granularity. The UKWIR environmental assessment guidance states that only where there is some reliable evidence available to set out longer-term changes (e.g. climate

				change projections from UKCP) that this should be reported. In addition, the environmental baseline was included in the original Scoping Report which was issued for consultation in 2021 where the statutory consultees were given opportunity to provide comment. It would be at this point where consultees would flag any concerns over the proposed methodology, including the baseline information used to inform the assessment framework. We would not look to update this before publication of the revised draft WRMP as any changes could change the overall assessments. Where references were made to the 2019 version of the NPPF, these have been updated to the 2021 version in the Environmental Report.

R5.6 SEA	The assessment takes into account the criteria for determining significance as well as effect characteristics as set out in Schedule I of the SEA regulations, namely the nature, timing and duration, geographical scale and location of effect, and the potential effect on vulnerable communities and sensitive sites. The thresholds for identifying these effect characteristics haven't been identified.	Although the methodology is comprehensive, without the provision of thresholds for the characteristics of effects, there is potential for significant effects to be missed within the assessment.	The WRMP SEA should be updated to include definitions for the characteristics of effects.	The thresholds used in the assessment are provided in Appendix E of the Environmental Report. This Appendix is signposted throughout the report.
R5.7 SEA	SSW expects to monitor the effects of the WRMP alongside the other impacts of its operations and, as such, is likely to rely on existing sources of information that are collected either by SSW or by other relevant organisations such as the Environment Agency and Natural England. Table 7.1 identifies potential indicators for monitoring effects against each SEA objective, where the information can be sourced	Whilst some information on monitoring is provided, the Environmental Report fails to provide detail on all the matters in Regulation 17, most notably about making provision for remedial action in the event of unforeseen circumstances.	SSW should amend Table 7.1 to include further details about when the measures will be carried out, by who and how. Information should also be provided about what actions will be taken if unexpected significant effects are found during monitoring.	We note the requirement to be able to adequately deal with any unforeseen significant effects as a result of the plan, however, at this stage of the SEA it is not possible to set out any specific remedial action(s) as the effects themselves are unknown. Significant adverse effects as a result of implementing the preferred plan of demand measures are unlikely and not anticipated (this is as presented in the environmental assessment).

	from and some commentary on the potential monitoring measure. Despite this, there is very limited detail on the actual monitoring measure including lack of explanation on what specifically needs to be done, how, by who and when. Table 7.1 indicates some of the issues currently monitored or which could be monitored in future, and how they relate to the SEA objectives used in the SEA of the draft WRMP24. This list is provisional and indicative only; monitoring proposals will be considered further and a final monitoring framework that satisfies the requirements of the SEA Regulation will be presented in the Post Adoption Statement. There is no information on trigger points and what action will be taken if unexpected significant effects are found during monitoring. As identified above, there may			There are no supply side options in the preferred plan and no adaptive / alternative plans. Section 7.4 of the Environmental Report sets out a provisional and indicative list of monitoring proposals and a final monitoring framework which satisfies the SEA Regulations will be set out in the Post Adoption Statement and published following the final WRMP. The SEA Directive states that monitoring must enable appropriate remedial action to be taken. For the monitoring programme to be effective, there must therefore be a mechanism in place to detect trends and to ensure that action is taken where trends are progressively adverse. Five-yearly assessment of monitoring and any measures taken would be included within the SEA for

	be some additional significant effects which haven't been identified, therefore it's not currently clear whether measures are appropriate.			the subsequent cycles of WRMP development. Through the proposed monitoring and analysis of the results obtained over the five-year period, the SEA will inform and influence the development of the WRMP for future periods. Section 7.4 has also been updated to reflect this.
Recommendation 6: Ensure that the assessment of climate change impacts in the plan is clear.				
R6.1 Climate change	The 12 Regional Climate Models (RCMs) and 20 Probabilistic Projections (RCP8.5 scaled to approximate RCP6) were used to assess the impact of climate change on deployable output. While groundwater provides ~50% of water resources for SSW in a dry year, groundwater deployable output impacts were not applied to the model under stochastics and climate change.	The impact of climate change to the availability of supplies may be higher than the one presented in the draft WRMP24, as impacts of climate change on groundwater deployable output have not been included.	The company should either provide clear evidence in the plan that its groundwater sources are not constrained by current and future climate conditions or include for the impacts of climate change on its groundwater source deployable outputs.	We have updated section 6.6 in the revised draft WRMP to include more detail on this element.

R6.2 Climate change	The company has not presented the results of a Basic Vulnerability Assessment (BVA) in its draft plan. SSW has not presented any comparison between UKCP09 and UKCP18 nor has the company provided contextualization of the UKCP18 products used such as relevant weather variables (for example precipitation and temperature) for future time slices and baseline period for all scenarios for the Probabilistic, Regional and Global Projections. SSW has not specified which Tier was used for climate change assessment. We assume SSW has used the 20280's time-slice and scaled this back across the plan period using the equation suggested in our guidance but this is not clear from the draft plan.	There is a lack of clarity in the plan around how the climate change assessment was undertaken.	SSW should update the plan to include:- - a BVA - a comparison between UKCP09 and UKCP18 results - contextual information on UKCP18 products used - clarity on the Tier of assessment chosen - a clear statement on the time-slice and scaling equation used for central estimates of climate change impact on supply.	We have included a new section in the revised draft WRMP, section 6.6.1, which shows our BVA. We have updated section 6.6 and 6.6.3 to provide the additional information: - a comparison between UKCP09 and UKCP18 results - contextual information on UKCP18 products used - clarity on the Tier of assessment chosen - a clear statement on the time-slice and scaling equation used for central estimates of climate change impact on supply.

R6.3 Climate change	The explanation of what scenarios have been selected for climate change uncertainty in target headroom is insufficient. While the plan states that the range of uncertainty used in the headroom assessment is based on the difference between the corrected wet / dry scenarios and mid-range scenarios, the plan does not define what the "wet", "dry" and "mid-range" climate change scenarios are.	There is a lack of clarity around the consideration of uncertainty due to climate change in the plan.	SSW should clearly explain and justify the choices made around the inclusion of supply-side climate change uncertainty in target headroom.	We have provided additional information on the supply-side climate change uncertainty in the target headroom section of the revised draft WRMP, section 7.1.1.
R6.4 Climate change and demand for water	SSW has used the UKCP09-based UKWIR 2013 methods to estimate the impacts of climate change on demand. This results in a modest increase to per capita consumption (attributed solely to the external use micro-component) over the plan period. SSW should explain more clearly which figures it has used from the UKWIR 2013 methods and why. SSW should also explain why it does not consider	SSW should better explain and justify its assumptions around the impact of climate change on household demand for water.	SSW should address our comments in its plan by including:- - a clear explanation of which UKWIR 2013 data has been used in the assessment - an explanation for why the company considers climate change only will impact external water use - results of any ground-truthing exercise to support the outcomes of the assessment based on UKWIR 2013.	Climate change impacts on consumption have been calculated in accordance with UKWIR 13/CL/04/12, 'Impact of Climate Change on water demand'. The model includes functionality to output forecasts with and without climate change factors. The additional demand from climate change is added to the external use micro-component only. The reason for this is outlined in the UKWIR report and is due to

	climate change will have any impact on any internal micro-component of consumption like personal and clothes washing. It is not clear whether the company has sought to ground-truth the 2013 UKWIR estimates of climate change impact on demand in any way (for example by using UKCP18 products and its own weather-demand models).			the statistical analysis of Anglian Water and Identiflow® datasets for household micro-component consumption consistently demonstrated that the volumes of external water use are strongly influenced by weather parameters. Our own research has shown this to be true since the Covid-19 pandemic as our customers attribute more value to outside space. There is a lack of consistent evidence of weather impacts on internal water uses. Therefore, where it is necessary to allocate the effects across components of household demand it would be reasonable to assume that all additional water consumption in hotter or drier weather is for external water uses. D3, uncertainty of impact of climate change on demand, has been determined according to the UKWIR methodology, Impact of Climate Change on Water Demand (2013). This has used statistical analyses

				performed on PCC data from Thames Water and Severn Trent Water to generate regression models relating to climatic data. These models have been used in combination with UKCP09 climate projections to derive algorithms and look-up tables for each UK region. We have selected the Severn Trent Water model as it best simulates the water using behaviour of our customer base. It has used probability data on increase in demand in the South Humber region as this geographically matches the majority of our supply area. The data tables contain forecast values for the percentage increase in household consumption and these have been directly applied using company average PCC values on an average basis. We have updated section 6.6 to include this detail.

Recommendation 7: Ensure its plan is legally compliant by adhering to the WRMP Directions				
R7.1 Direction 3(d) describe the emission of greenhouse gases likely to arise as a result of each measure in its plan	There is no information presented in the plan on the assessment of greenhouse gas emissions for current baseline operations or total emissions forecast for future operations across the plan period as required by Direction 3(d).	The company is not compliant with Direction 3(d).	The company must include an assessment of the greenhouse gas emissions from both its current operations and total emissions forecast for future operations across the plan period to meet Direction 3(d).	We have included the required information in section 10.10 of the revised draft WRMP.

Area of issue	**Issue and evidence**	**Implications**	**Information or changes required**	**South Staffs Water Response**
Improvement 1: Address the various issues outlined concerning the National Capital Accounting (NCA) report.				
I1.1 NCA	The NCA report does not provide clarity about how the Best Value metrics are weighted against each other. This should be added to the NCA report for the plan.	Lack of clarity in the NCA report.	The NCA report does not provide clarity about how the Best Value metrics are weighted against each other. This should be added to the NCA report for the plan.	Text has been added into the NCA report to provide further clarity on how Best Value metrics are weighted against each other.
I1.2 NCA	The NCA does not include estimates of natural capital for demand-side options. SSW should re-	Important information is missing from the NCA.	The NCA does not include estimates of natural capital for demand-side options. SSW should re-consider this	Within the supplementary guidance (environment and society in decision making) states that there are

	consider this and include for demand-side options in the NCA.		and include for demand-side options in the NCA.	particular challenges around assessing demand management options, in particular using natural capital assessment and biodiversity net gain, and because of these complexities demand management options do not need a natural capital assessment to be undertaken. Furthermore, a natural capital assessment of demand management options was not undertaken to avoid undue bias for these options. As the natural capital assessment for options that were not in the preferred programme (where biodiversity net gain mitigation has been calculated) was heavily dependent on the land take of the options (and habitats within this land take), demand management options would score highly as they do not require any land take.

I1.3 NCA	The NCA lacks detail on two important aspects. Firstly, in respect of the qualitative commentary for how all ecosystem services are assessed in the NCA. Secondly, in relation to Appendix A - the assumptions and caveats made in the NCA.	Lack of clarity in the NCA report.	Provide additional clarity in the plan on both ecosystem services and assumptions made.	Further signposting within the main NCA document to the NCA Appendix A assumptions and caveats has been included to create better visibility of the mitigation and justifications. Reference to qualitative assessments have also been added to Climate regulation, Natural Hazard Regulation, Water Purification, and Water Regulation ecosystem services.
I1.4 NCA	When compared to our "Environment and society in decision-making" supplementary guidance, there is no evidence that the NCA follows these principles:- - Reflect the quality of your data: NCAs were presented as the individual monetary impacts of the options on each ecosystem service which reduced flattening of the data [Appendix D - the report]. However, a sensitivity analysis could have been undertaken.	Important information is missing from the NCA.	The NCA should be revised to include for the three additional principles described in this "issue and evidence" column.	A sensitivity test could have been undertaken, but as briefly discussed with the EA, the guidance states it is not necessary. At this stage it was not deemed necessary or proportionate to outputs that would be gained to do any sensitivity testing with the range of options that were provided. Comments in I1.4 highlight a potential bias issue regarding water regulation assessments on preferred plan of supply options. The water regulation assessment in the preferred plan

	- Understand and manage bias: To avoid bias, Water Regulation was screened out of the NCAs for feasible list options as it was considered to be represented well in the Water Framework Directive (WFD) Compliance Assessment. It was stated that Water Regulation would be screened in for options in the preferred programme, which may have created bias. However, no NCAs were undertaken for options in the preferred programme, and thus the bias was avoided. - Deliver real quantifiable benefit for the environment and society: While the impacts of the options to each ecosystem service were quantified in monetary values, all the impacts show either costs to the environment or no impact [Appendix D - the report]. It is unclear what benefits the feasible options provide to the			assesses different aspects of the CAMS data compared to the WFD assessment. The potential bias surrounding the WFD assessment and NC double counting in Stage 1 was screened out due to lack of data at that stage. Finally, the comment flags potential issues with the natural capital assessment not delivering quantifiable benefits for the environment and society. However, as briefly discussed with the EA, unless supply side options were moved forward into the preferred plan (where biodiversity net gain mitigation is calculated) there are no quantifiable benefits for the options. This approach was originally decided upon to provide a proportionate response to the different constrained, feasible and preferred plan lists. This methodology has been used across the Water Resources West group to

	environment. However, no NCAs were undertaken for the preferred programme, and they may deliver benefit to the environment.			ensure alignment across the different water company plans within WRW. It was consulted on through production of a combined scoping report along with individual appendices for each water company. As such it was deemed inappropriate to change the methodology once supply side options were not selected in SSW's preferred plan. It was also deemed inappropriate to change the level of assessment and significantly revise the methodology after options had been selected as this provides room for bias to creep into the assessments.
I1.5 NCA	The NCA does not include natural capital stocks for woodland in the quantitative assessment.	Important information is missing from the NCA.	Revise the NCA to include natural capital stocks for woodland in the quantitative assessment.	Woodland has been included in the quantitative assessments. Appendix E has been added to include the full assessment workbook for each option. This provides better visibility on inclusion of the woodland stock.
I1.6 NCA	The NCA does not include a quantitative assessment of water purification.	Important information is missing from the NCA.	Revise the NCA to include natural capital for water	As per the consulted methodology at scoping stage (including consultation

			purification in the quantitative assessment.	with EA, NE and NRW), unless supply side options were carried forward into the preferred plan only a qualitative assessment of water purification would be undertaken. This approach was originally decided upon to provide a proportionate response to the change in number of options through the appraisal process from the constrained to the feasible and then the preferred options.
I1.7 NCA	For several options in the plan, reported NCA results are "0.00" or "NA" for some ecosystem services. No rationale is provided to explain why this is. It is therefore unclear if this means options will have no impact on these ecosystem services.	Lack of clarity in the NCA report.	Revise the NCA to include a clear explanation for all values in the assessed impact on ecosystem services (for example, where "0.00" or "NA" in presented).	Where a value of '0.00' or '£0' has been stated, the relevant option has not had any temporary or permanent impact for the ecosystem services studied. Text has been added to Appendix D to provide better clarity i.e. "* Option did not have any temporary and / or permanent land loss, thus has no temporary or permanent impacts for the ecosystem services studied".

I1.8 NCA	Reporting of the methodology used is transparent [Section 2.3 – the report]. However, reporting of intermediate results (for example, quantification of carbon sequestration for each broad habitat type within each option) is missing. The lack of presentation of the intermediate steps makes it difficult to determine if the methodology stated in [Section 2.3] of the report was followed.	Lack of clarity in the NCA report.	Revise the NCA to include reporting of intermediate results to aid transparency.	Appendix E has been added to include full assessments that include NC workbooks that show detailed calculations.
I1.9 NCA	A sensitivity analysis, using the low and high non-traded carbon values from BEIS, could have been used to conduct a sensitivity analysis.	Lack of clarity in the NCA report.	Revise the NCA to include a sensitivity analysis associated with non-traded carbon values.	This has been discussed with the EA and it was agreed that it was not necessary analysis at this stage and therefore has not been undertaken.
I1.10 NCA	Assumptions and caveats were listed in [Appendix A] of the report, however mitigation and justifications were not always provided.	Lack of clarity in the NCA report.	Revise the NCA to include a description of mitigation and justifications.	Further signposting within the NCA main document to the NCA Appendix A assumptions and caveats has been included to create better visibility of the mitigation and justifications.

Improvement 2: Address the issues associated with assessing the carbon impacts of the plan.				
I2.1 Carbon assessment	There is no indication of carbon off-setting being used for mitigating residual emissions or of any other mitigation opportunities having been considered.	Guidance not followed which might lead to a different option set if it was done correctly.	It is recommended that SSW include in its plan how it plans to reduce its carbon emissions and whether they've considered any mitigation appropriately. Also, it is recommended to consider carbon offsetting for mitigating any residual emissions and include the results in the plan.	We have included information on the carbon impacts of our plan, including our journey to net zero, in section 10.10 of the revised draft WRMP.
I2.2 Carbon assessment	It is not clear if or how SSW has conducted a whole life carbon assessment and whether any framework has been followed to do this. There is no mention of PAS 2080 or any other methodologies. Therefore it is difficult to have confidence in carbon costing used by the company.	There is no indication in the plan of any whole life carbon assessment being conducted. If it was conducted, it is not clear what guidance or standard model has been used in this assessment.	SSW should perform whole life carbon assessments for all options and indicate which policy or framework is followed in doing this assessment. SSW should then update the plan with this information and results.	We have produced a supporting note on carbon to support the answers to queries under improvement action 2. This has been submitted alongside the SoR. This is Appendix S and section 1 to 4 of this note details the whole life carbon assessment approach.
I2.3 Carbon assessment	The plan contains limited information on how the company will achieve its own, WaterUK and Government net zero carbon commitments.	There is a lack of information in the plan about how the plan and company will deliver net zero carbon commitments.	SSW should update the plan to demonstrate how it will achieve its own, WaterUK and Government net zero carbon commitments.	We have included detail in section 10.10 on our net zero carbon commitment.

I2.4 Carbon assessment	SSW does not appear to have considered uncertainty within its carbon assessments. This has the potential to affect plan outcomes. To improve its calculation of carbon emissions, any uncertainties in the data should be considered and presented in the plan.	There is a lack of information in the plan about how SSW has considered uncertainty in its carbon assessments.	SSW should include in its plan an assessment of uncertainty in the calculation of carbon emissions.	We have produced a supporting note on carbon to support the answers to queries under improvement action 2. This has been submitted alongside the SoR. This is Appendix S, and section 5 – Limitations and next steps – outlines the uncertainties.
I2.5 Carbon assessment	Our guidance asks water companies to consider and present evidence of options that embrace innovative designs and opportunities to generate or be powered by renewable energy or sequester carbon (or both). We cannot find evidence that SSW has considered this in its planning.	Guidance not followed, and it might change the planned outcomes. There is no observation of SSW being innovative in reducing carbon emissions in design.	SSW should consider innovative approaches and opportunities to reduce or mitigate for carbon emissions in its options appraisal and present evidence for this in its plan.	Our plan is based on demand management alone. These activities, such as leakage reduction and consumption reduction, do in turn lead to reductions in carbon emissions due to reduced water abstraction, treatment, chemicals and pumping. Our journey to net zero emissions is included in section 10.10.

Improvement 3: Improve the information provided in the supply and demand technical appendices.				
I3.1 Supply forecasting improvements	SSW's Appendix D (supply forecasting) contains a number of improvements suggested to the company by the consultants leading the supply forecasting work (Hydro-Logic). We would summarise these as:- - re-consider the logic for triggering Temporary Use Ban (TUB) restrictions in the model - re-consider the assumed percentage savings for TUBs based on SSW and other company experience - ensure the trigger curve for TUBs is optimally placed - include a more recent and typical industry practice demand weekly/monthly profile in the supply model (rather than the current 1995 daily sequence)	It is unclear whether the company has acted on any of the suggested improvements to supply forecasting or whether it intends to act on them in the future (and if so, when).	SSW should provide information in the plan about how it is taking on board the six suggested improvements listed here (and in SSW's Appendix D). This should include clarity about whether SSW agrees with the suggested improvements, whether the company has already addressed them and (if not) when it plans to address them.	We have included our position on these improvements in section 6.2.3, including work we have undertaken for the revised draft WRMP and future planned work.

	- work with Severn Trent Water and ourselves to improve the representation of the River Severn system in its model - *(supporting our Improvement 3.1 above)* work to provide evidence that groundwater deployable output is inelastic to climate change / stochastic droughts			
I3.2 Demand forecasting improvements	SSW's Appendix C1 and C2 (demand forecasting) contain a number of improvements suggested to the company by the consultants leading the demand forecasting work (Artesia). We would summarise these as:- - consider developing SSW-own forecasts rather than being dependent on Severn Trent Water - consider a micro-component study (including new-build properties) to improve on the current approach	It is unclear whether the company has acted on any of the suggested improvements to demand forecasting or whether it intends to act on them in the future (and if so, when).	SSW should provide information in the plan about how it is taking on board the seven suggested improvements listed here (and in SSW's Appendix C1 and C2). This should include clarity about whether SSW agrees with the suggested improvements, whether the company has already addressed them and (if not) when it plans to address them.	We have included our position on these improvements in a new section, 5.12, including work we have undertaken for the revised draft WRMP and future planned work.

	(based on ageing national datasets) - consider SSW resilience to longer duration hot, dry events such as summer 2018 - update the non-household demand forecasts prior to final plan submission - work with MOSL and retailers to improve the quality of non-household forecasts - improve SSW's understanding of which Standard Industrial Classification category its non-household customers (supplied directly by SSW or indirectly via retailers) fit within - adopt a more "continuous" approach to non-household demand forecasting (rather than re-looking in detail only once			

	every five year planning cycle).			
Improvement 4: Improve and correct the data errors and information that underpin the plan.				
I4.1 Incomplete options data	SSW has not completed many of the cells required in our planning table 5 (options information). We expect companies to follow guidance and provide all the required information.	There is a lack of information about options to allow us and other third parties to fully understand SSW's potential future options.	SSW should improve its options information in the planning tables and provide what the guidance asks for in future iterations of the plan.	We have reviewed an updated the data tables for submission with the revised draft WRMP. We have ensured there is no missing data in table 4 or 5.
I4.2 Data error	SSW's planning table data contains an error in row 35FP (unmeasured household properties) in the year 2029/30.	SSW has put an erroneous number in the planning tables which then feeds into the calculation of other key metrics (such as per capita consumption and metering percentage). This may confuse the reader.	SSW should correct this data error in the plan and ensure it has robust data quality assurance in place.	We have updated this number in the tables which have been submitted with the revised draft WRMP.
I4.3 Data error	SSW's planning table data for rows 16BL/FP and 17BL/FP (impact of climate change on consumption) appear to be wrong.	SSW appears to have put erroneous data into these rows in the planning tables. This may confuse the reader.	SSW should correct this data error in the plan and ensure it has robust data quality assurance in place.	We have updated this data in the tables which have been submitted with the revised draft WRMP.

	Values in these rows are around 20%+ whereas we would expect them to be around 1 or 2%.			
I4.4 Data guidance mis-interpretation	SSW has presented cumulative five-year total values for Normal Year Annual Average consumption post-2035. We were expecting this to be a single-year snapshot for each five years rather than a cumulative figure.	SSW has mis-interpreted the guidance on how to complete this data row.	SSW should present single-year snapshots of Normal Year Annual Average consumption post-2035.	We have updated this data in the tables which have been submitted with the revised draft WRMP.
I4.5 Data for drought measures	Drought measures are not presented as options in table 5 providing a Dry Year Annual Average (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 supply-demand balance. This provides transparency of the options that provide	SSW has not followed our guidance on how to include drought measures in its planning tables. This means drought measures are not compared with other supply demand options through the options appraisal and best value planning process.	SSW should update its planning table data to ensure all drought measures included in the supply demand balance calculation are presented consistently and fully in all of tables 3b, 5 and 6.	We have included all drought measures in table 5 in the tables which have been submitted with the revised draft WRMP.

	benefit and assurance that the final planning supply-demand balance is accurate. Please add entries for all relevant drought measures to table 5 and ensure the benefits match those presented in table 3b.			
I4.6 Abstraction licence data	The River Blithe pumpback licence (03/28/06/0084) is missing from planning table 1 (base year licences).	SSW has not included a licence in planning table 1.	SSW should add this licence to planning table 1.	We have included this in table 1 in the planning tables which have been submitted with the revised draft WRMP.
I4.7 Abstraction licence data	The Hulme Springs source is included in the active group licence information in planning table 1 with zero deployable output and a comment that it has been decommissioned.	Improve abstraction licence information.	SSW should consider moving the Hulme Springs source to the "unused licences" section of table 1 given the comments provided.	We have move Hulme Springs to the unused licence section of table 1 in the planning tables which have been submitted with the revised draft WRMP. We have also moved the Sandhills and Shenstone licences here for the same reasons.
I4.8 Data on export	Text in section 6.7 of SSW's main plan document states that the company has an active non-potable export. However, there is no data entered in row 1.1BL of the planning tables.	SSW may be missing a non-potable export from its planning tables and supply demand balance.	SSW should either enter the non-potable export onto the planning tables or justify why this is not appropriate.	We have included this export in line 1.1BL in the planning tables which have been submitted with the revised draft WRMP. As it is an export, we have included it as a negative value.

I4.9 Potable water exports data	Text in section 6.7.1 of SSW's main plan document states that the company has two active potable water exports to Severn Trent Water, these exports are also reflected in planning table 3a. However, there is no equivalent data entered into row 0.7BL of table 1g as we'd expect.	SSW has not included transfer information for two exports to Severn Trent Water in planning table 1g.	SSW should add this potable water export data to planning table 1g or clearly explain why that is not appropriate.	We have included these two exports in table 1g in the planning tables which have been submitted with the revised draft WRMP.
I4.10 Export data consistency	SSW's planning table 3a states potable water exports are -44.18 Ml/d. Based on SSW's main plan document, these exports are all to Severn Trent Water. In Severn Trent Water's planning tables, the corresponding imports are a total of 42.06Ml/d. This gives a discrepancy of 2.12 Ml/d.	SSW and Severn Trent Water have differing understandings of the quantities involved in their imports/exports.	SSW should work with Severn Trent Water to ensure that the data relating to transfers between the two companies is the same or very similar. If the data is only very similar then an explanation of why they are not identical should be included in the plan.	We have aligned the data with Severn Trent Water and this will be the same in both companies planning tables that are resubmitted with the revised draft WRMPs.
I4.11 Raw water exports	Text in section 6.7 of SSW's main plan document states that the company has no raw water exports. There is also no data entered into row 0.6BL of table 1f. However, planning table 3a states raw water exports of –	SSW has included transfer information for a raw water export in table 1f that is not referred to anywhere else in the plan.	SSW should check if this is a data error, or if a raw water export is missing, and update the plan data accordingly.	The data in table 3a was an error and has been removed in the planning tables which have been submitted with the revised draft WRMP. We have no raw water exports.

	1.56Ml/d in the year 2019-2020 and 2022-2025.			
Improvement 5: Review our concerns about some of the supply side options.				
I5.1 Supply-side options	Option 8.1.5 (new groundwater source in Burton supplying Seedy Mill WTW with 2.5 Ml/d) remains on the feasible list of options. If this new source is within the Burton Groundwater Body then it would need an appropriate licence trade with a third party. This is unclear from the description of the option. The Burton Permo-Triassic (PT) Sandstone Groundwater Body is assessed as Good quantitative status but at risk of deterioration. Our Tame Anker and Mease (TAM) Abstraction Licensing Strategy (ALS) states that we will not issue any new or varied licenses that would increase consumptive abstraction in order to manage the risk of deterioration. The ALS document provides advice	This option which is presented as feasible in the draft plan may not be feasible due to sustainability and WFD concerns.	SSW should consider our comments on option 8.1.5 and if necessary remove it from the list of feasible options.	The WFD Compliance Assessment Report has been updated to provide further reasoning around the assessment of Option 8.1.5. Note, we can confirm that the abstraction would be from the Tame Anker Mease - Secondary Combined (GB40402G990800).

	on licence trading in this GWB. Appendix P7 WFD Option Level Impact Assessments: Option 8.1.5 Groundwater screening assessment on page 16 confusingly refers to Tame Anker Mease - Secondary Combined (GB40402G990800) Groundwater Body rather than Tame Anker Mease - PT Sandstone Burton (GB40401G301200). Is this an error or are SSW proposing to utilise water from Triassic Mudstone Strata of the TAM Secondary Combined GWB?. Clear details of this scheme are required. If the option is proposed in the Tame Anker Mease - Secondary Combined (GB40402G990800) Groundwater Body then a licence trade would not be required as there is Water Available in this Groundwater Body However please note that a deterioration assessment of the Groundwater Body			

	and connected water bodies would be required to evidence that the proposed development would not cause deterioration of any element test. Water body assessment for Trent - Tame to Dove (GB104028047180) may need to be expanded to other waterbodies depending on final location of the borehole and connection. We question that the suggested yield (2.5 Ml/d) would be reliably available from this GWB. Note also that the confined Sherwood Sandstone at this location is subject to the same WFD requirements (and licensing policy) as the connected Groundwater Body.			
I5.2 Supply-side options	Options 1.1.7 and 1.1.1.10 are within the Birmingham-Lichfield PT Sandstone Groundwater Body which is assessed as WFD Poor Quantitative	These options presented in the draft plan are not feasible due to sustainability and WFD concerns.	SSW should consider our comments on options 1.1.7, 1.1.10, 1.1.1, 1.1.3 and 1.4.5 and update the plan accordingly.	These options are not included as feasible options in the revised draft WRMP following feedback at pre-consultation. They were included as unconstrained in

	Status and At Risk of further deterioration. Options 1.1.1 and 1.1.3 a/b are within the Worcestershire Middle Severn PT Sandstone Groundwater Body which is assessed as Poor Quantitative Status and At Risk of further deterioration. Option 1.4.5 is within the Staffs PT Sandstone Groundwater Body which is assessed as Poor Quantitative Status and At Risk of further deterioration. We have agreed source specific WFD no deterioration baseline (NDB) abstraction figures for these sources with SSW. We are currently working on the detail of the licence changes with SSW to ensure that growth at these sources does not occur. Any increase above the NDB within these GWB's will cause deterioration. Our ALS's state that we will not issue any new or varied licenses			order to show the change to the option status. This is represented in table 4 as "unconstrained" with comments to detail why these options were screened out.

	that would increase consumptive abstraction in order to deliver our statutory obligations to prevent deterioration.			
I5.3 Supply-side options	Option 1.1.9 is for a new groundwater source at Warton / Chilcote within the Burton PT Sandstone Groundwater Body which is assessed as Good quantitative status but at risk of deterioration. Our Tame Anker and Mease Abstraction Licensing Strategy (ALS) states that we will not issue any new or varied licenses that would increase consumptive abstraction in order to manage the risk of deterioration.	This option which is presented in the draft plan may not be feasible due to sustainability and WFD concerns.	SSW should consider our comments on option 1.1.9 and update the plan accordingly.	This option was not included as a feasible option in the revised draft WRMP following feedback at pre-consultation. It was included as unconstrained in order to show the change to the option status. This is represented in table 4 as "unconstrained" with comments to detail why this option was screened out.
I5.4 Supply-side options	In relation to surface water options, there are several options associated with the River Severn. Although not carried through to the preferred list, these remain on the feasible list. As part of the assessment of these options it will be essential to ensure that any implications on River	We have concerns around the sustainability of SSW's potential future options on the River Severn.	SSW should consider our comments on options involving the Severn and update the plan accordingly.	As part of the draft WRMP, South Staffs completed HRA Stage 1 Screening on all supply options, which could have been included in an alternative pathway. This stage is documented in the HRA. As part of internal work, whilst the modelling and WRMP was being developed, South Staffs has

	Severn Regulation are fully assessed. A review of River Severn Regulation will be undertaken soon and the Shropshire Groundwater Scheme licence review is ongoing. However, there is mention in the option details (specifically the WFD Regulations Assessment) that for these options (for example 2.3.1, 2.3.2, 7.5.1.1, 7.5.1.2, 7.5.1.3, 7.5.1.4) the WFD assessment is based on the assumption that these options would not be operational at the same time as Severn Regulation releases. Clarification is required as to whether it is the associated release from UU (Vrnywy) and the abstraction that has been assumed for the WFD assessment. Appendix P2 HRA Issue 1. For River Severn related options there is mention of the 'likely significant effect on the Severn Estuary SAC/SPA/Ramsar. As such, a Stage 2 Appropriate			completed draft HRA Stage 2 Appropriate Assessments for a number of supply side options. However, with a re-run of the plan completed, supply side options are still not required, even under alternative pathways. As such, no Stage 2 Appropriate Assessments have been included in the HRA to support the Preferred Plan, as these are not required.

	Assessment will be required to assess impacts from construction and operational activities if this option is in future selected within the preferred programme. As noted above, the impacts of the supporting Severn Regulation on Habitats Directive need considering, particularly given the potential increased reliance on the Severn. This will be subject to the answer in relation to whether UU releases and abstraction will not be operational at the same time as Severn Regulation releases (this has been assumed for the WFD assessment). Assessment of future abstractions from the Severn will also need to factor in in-combination effects with the plans and options of other water companies that abstract from this river.			
I5.5 Supply-side options	Feasible option 6.1.3 for 70 Ml/d works on the Trent – it is unclear where	We have some questions and concerns in relation to the assessment of options	SSW should consider our comments on options	A Stage 3 impact assessment has now been included for Option 6.1.3 which justifies

	this abstraction has been assumed to take place. This amount of water is not available – our ALS quotes 69 Ml/d as available at Assessment Point 9. Appendix P7 (WFD assessment level impact assessments) – Hydrological regime for a River Trent option is marked as “minor.” SSW should explain and justify this outcome. An abstraction of 40 Ml/d upstream of Rugeley would take up all the water available for further abstraction and hence close the catchment. SSW should explain how this is considered “minor.”	associated with the River Trent.	involving the Trent and update the plan accordingly.	the reason for the hydrological impact of this option being considered "minor". The hydrological impact for Option 6.1.1 was assessed as "moderate" in the impact assessment conducted for this option, rather than "minor" as the comment states. Text has been updated in the impact assessment for Option 6.1.1 to further explain this.
I5.6 Supply-side discussions	We are aware that SSW is in discussions with a third party about a potential agreement related to use of sources in the Birmingham-Lichfield PT sandstone groundwater body. The outcome of these discussions may	SSW may need to change its supply forecast depending on the outcome of discussions with a third party.	SSW should explain and present the outcome of discussions with this third party and demonstrate they are planning appropriately for it.	We have had initial discussions with a third party regarding a licence trade. However, these are still at a very early stage and are just one option the third party is exploring. Therefore we have not included for this in our planning.

	have an impact on SSW's supply forecast.			The scale of the trade would be circa 1 Ml/d and our final plan SDB has the ability to deliver this before 2030 if this trade did progress.
I5.7 Supply-side options	SSW has not included options to reduce outage in its plan. SSW has also not included catchment options or nature-based solutions in the plan.	SSW may not be considering the full range of options available to it.	SSW should consider options to reduce outage and nature-based catchment options and include the results in the plan.	We have included details in section 6.5 regarding our approach to reduce outage moving forwards. However, due to changes to our major treatment works during AMP7, we do not have any developed options to reduce outage at our River Severn Works until this work is completed and we can identify opportunities. We have also not identified any catchment or nature based solutions that will increase available water supply in our area.
I5.8 Supply-side options	SSW should work closely with Severn Trent Water to explore potential future joint water supply options as part of the regional planning process.	SSW may not be considering the full range of options available to it.	SSW should work with Severn Trent Water to consider potential future joint water supply options.	Through the regional planning process and Water Resources West, we have worked jointly with our regional water companies to identify options. Severn Trent Water currently do not have additional water resource needs surrounding our area, but we are

				committed to continue working together to identify any potential future opportunities.
I5.9 Supply-side options	Our guidance requests that for each feasible supply and transfer option, the company should provide a description of the option including an appropriate schematic map or conceptual diagram showing the source of supply, the main operational features, the areas over which the option is to be implemented and any links or dependencies to other options. SSW has not provided this information for each of the feasible supply-side options included in the plan.	SSW has not followed our guidance and provided information to clearly describe each of its feasible supply-side options.	SSW should include the information about each of its feasible supply-side options as per our guidance.	Due to the timescales for producing the SoR, coupled with the preferred plan containing no supply side options, means we will deliver this in time for the final plan as an appendix.
Improvement 6: Present stochastic drought information in a simple way in the plan.				
I6.1 Stochastic droughts	The plan does not present extracted stochastic droughts as scenarios in a simple way so that regulators, customers and stakeholders can understand the approach	SSW has not presented information about stochastic droughts in a simple way in the plan.	SSW should present extracted stochastic droughts as scenarios in a simple way in the plan. SSW should also explain the approach used to generate the 48-year sequence that	We have provided additional information on this in section 6.6.2 of the revised draft WRMP.

	taken. SSW has not clearly explained the approach to incorporating climate change within stochastic drought modelling.		underpins the long time-series stochastic data.	
Improvement 7: Confirm which drought permits and supply side drought orders are included in the plan.				
I7.1 Drought permits/orders	SSW has not clearly explained in the plan which drought permits and supply-side drought orders are assumed to give a benefit to the supply demand balance. In addition, SSW's planning table 6 quotes benefits for drought permits and supply orders at 17 Ml/d. This is significantly lower than the figures presented in the company drought plan. The drought plan has a range of 32.6 Ml/d to 47 Ml/d for benefits to supply of the same permit/order combination as in the WRMP.	There is a lack of clarity about which drought permits and supply-side orders are included in the planning table 6 and why they are assumed to provide much lower benefits than are presented in the company drought plan.	SSW should put additional information into the plan to explain which drought permits and supply-side orders are included and why their benefit to supply is significantly lower than the equivalent benefit in the drought plan.	We have reviewed our drought permits and orders to ensure the benefits relate to the drought plan. We have included detail on these in a new section in the revised draft WRMP, section 9.5.3. The Blithe drought permit is shown as 23 Ml/d in our drought plan, but 8 Ml/d in the WRMP. This is because the drought plan quotes what the typical daily pumping volume would be but the WRMP quotes the DO benefit. We will clarify this in our next drought plan update. We have also updated the benefits related to the River Severn drought order in the WRMP which has been rounded down. It now directly reflects the drought plan.

Improvement 8: Improve the target headroom assessment.				
I8.1 Target headroom	SSW has used the 80th percentile target headroom values across the plan period. We would expect water companies to accept a higher degree of risk in the supply demand balance and target headroom further into the future, or clearly justify why this is not appropriate.	SSW may be accepting too much risk in the near-term and too little risk in the longer-term by choosing to use the same headroom percentile across the plan period.	SSW should consider using a variable target headroom percentile profile in the plan or clearly explain why this is not appropriate.	We have updated our target headroom for the revised draft WRMP and included the details of this in section 7.2 of the main plan. We have also included additional narrative to explain our choice of headroom profile, which we have kept at 80th percentile for the revised draft plan.
Improvement 9: Clarify how alternative programmes of options have been appraised to achieve the plan.				
I9.1 Alternative programmes	It is not clear from the plan whether the company has appraised a number of alternative programmes. There should be a range of alternative programmes that still meet the objectives. The company should use the alternative programmes to justify its preferred set of options. As a minimum, the company should present a least-cost programme and a "best environment and society" programme as	There is a lack of clarity in the plan about how the company has appraised alternative programmes of options to achieve the plan outcomes.	SSW should include the information stated in our guidance to demonstrate it has adequately considered alternative programmes to its preferred best value programme.	We have included a new section in the revised draft WRMP, section 9.8, which details the alternative plans.

	alternatives to the preferred "best value" programme. It should explain the difference in option selection and cost and justify why it has selected the preferred programme instead. This should take account of the SEA and HRA, biodiversity net gain and natural capital assessments.			
Improvement 10: Ensure the revised draft plan takes account of any decisions on the company's scheme acceleration proposals where applicable.				
I10.1 Acceleration of schemes	The company has submitted schemes to be considered for acceleration in the remainder of AMP7. An announcement around the outcome of this acceleration process is expected in March.	If any of the company's schemes are accelerated then the current representation of these schemes in the plan will not be fully accurate.	Ensure the company's revised draft and final plan takes account of any decisions on its scheme acceleration proposals where applicable.	We have included a new section in our revised draft WRMP, section 9.10, which details the outcome of the accelerated process, our approach and the impact this has had on our plan.
Improvement 11: Review resilience of its plan in the context of the 2018 and 2022 drought.				
I11.1 Learning from the drought of 2022	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 needs to be	The company should demonstrate in its WRMP how it has identified and learnt lessons from the 2022 drought.	You should provide a new section in your statement of response and/or revised draft plan which covers any issues identified. The company should refer to the updated water resources planning guideline for a list	We have produced an additional appendix, appendix R, that details our review of the 2022 drought and our lessons learned.

	improved. SSW should learn from any issues it experienced.		of areas that should be considered.	