# Draft Water Resources Management Plan

Statement of Response – Appendix C

**Prepared by the Water Resources Strategy Team**

**03 September 2018**

WONDERFUL ON TAP

SEVERN TRENT

# Appendix C: Consultation comments and our response

During the consultation stage of our draft WRMP, we received comments from a total of 22 organisations and stakeholders. We acknowledge and appreciate the time that these parties have provided to input into the development of our WRMP and we have endeavoured to respond to every observation, request and clarification that has been provided to us. In order to provide a clear line of sight between the comments made by our consultees and our response, we have prepare this Appendix to:

- Demonstrate the comments that our consultees raised during the consultation period.
- Support navigation of the Statement of Response document and associated Appendix A and Appendix B.
- Provide visible assurance that we have given due regard, and prepared a response, for all comments that we received during the consultation.

The Table in this Appendix lists all consultation comments that we received. The list is sorted alphabetically by organisation name. In the Table we have abbreviated organisation names in accordance with the following key. We notice that some of the responding consultees also use abbreviations that may be unfamiliar to other organisations. As such, we have provided a glossary of terms to assist understanding of this document.

We received consultation comments from the following organisations:

| Notation in Appendix C | Organisation |
|---|---|
| C&RT | Canal & Rivers Trust |
| CCWater | Consumer Council for Water |
| Doncaster Council | Doncaster Council |
| EA | Environment Agency |
| GARD | Group Against Reservoir Development |
| Hinckley & Bosworth Borough Council | Hinckley & Bosworth Borough Council |
| Leicestershire County Council | Leicester County Council |
| NE | Natural England |
| NFU (West & East midlands) | National Farmers' Union (Joint East and West Midlands Group) |
| NFU (Paul Tame - East Midlands) | National Farmers' Union (East Midlands Group) |
| Nottinghamshire Wildlife Trust | Nottinghamshire Wildlife Trust |
| NRW | National Resources Wales |
| OFWAT | Water Services Regulation Authority |
| R. Idle catchment partnership | River Idle Catchment Partnership |
| RSPB | Royal Society for the Protection of Birds |
| RWE Generation UK | RWE Generation UK |
| Sandstone Ridge Trust | Sandstone Ridge Trust |
| Thames Water | Thames Water |
| Uniper | Uniper UK Ltd |
| Worcestershire Wildlife Trust | Worcestershire Wildlife Trust |
| WWF | World Wide Fund for Nature |
| WWT | Warwickshire Wildlife Trust |

Abbreviations used by some of the responding consultees:

| Abbreviation | Definition |
|---|---|
| dWRMP19 | Our Draft Water Resource Management Plan 2019 |
| BAP | Biodiversity Action Plan |
| BH | Borehole |
| CaBA | Catchment Based Approach (Group) |
| Capex | Capital Expenditure (Capital Costs) |
| CSR | Corporate-Social Responsibility |
| DO | Deployable Output |
| DVA | Derwent Valley Aqueduct |
| EFI | Environmental Flow Indicator |
| fWRMP | Our Final Water Resource Management Plan |
| mHH / umHH | Metered Household / Unmetered Household |
| NPV | Net Present Value |
| Opex | Operational Expenditure (Operating Costs) |
| PCC | Per Capita Consumption |
| PR19 | Periodic Review 2019 |
| PT SST | Permo-Triassic Sandstone |
| RSA | Restoring Sustainable Abstraction |
| SEA | Strategic Environmental Assessment |
| SSSI | Site of Special Scientific Interest |
| STEPS | Severn Trent Environmental Protection Scheme |
| STW / SvT | Severn Trent Water |
| USPL | Underground Supply Pipe Losses |
| WFD | Water Framework Directive |
| WINEP | Water Industry National Environment Programme |
| WISER | Water bodies in Europe: Integrated Systems to assess Ecological status & Recovery |
| WRMP14 | Our Final Water Resource Management Plan 2014 |
| WTW | Water Treatment Works |

| Stakeholder | Comment | Our Response |
|---|---|---|
| C&RT | *During the development of their dWRMP19, Severn Trent Water have engaged with many stakeholders, holding regular events to inform and discuss their thinking and how this impacts on the development of their plan. The Trust have welcomed this approach and have had numerous discussions with Severn Trent Water to better understand the scale of the issues they face and how the Trust could potentially help to resolve them.* | Please refer to Appendix A1 - Customers & Engagement |
| C&RT | *The published dWRMP19 highlights that reductions in sustainable abstractions led by the Water Framework Directive, is the key driver behind their predicted supply demand deficit over the plan period. The combined deficit is not clearly stated in the draft plan and can only be calculated by assessing the information detailed in the respective water resource zone (WRZ) data tables.* | Please refer to Appendix A1 - Customers & Engagement |
| C&RT | *Severn Trent Water have provided this information using the EA Water Resource Planning Data Tables and not the Market Information tables as required by Ofwat. Formatting the data in this way has made it difficult to assess in comparison to other water companies dWRMP19 data.* | Our Market Information tables were published on our website alongside the dWRMP documents on 19 February 2018. The tables can be found here https://www.severntrent.com/about-us/future-plans/water-resource-management/market-information-tables/ Please refer to Appendix A1 - Customers & Engagement for more information. |
| C&RT | *We also understand that Severn Trent Water have utilised the EA's Benefits Assessment Guide (Appendix D, Section D8) to calculate social and environmental costs or benefits associated with any of the supply-demand options, to inform their preferred plan. Severn Trent Water have used this approach to assess costs, but it is not clear how benefits are calculated, if at all. We feel that this lack of clarity has the potential to disadvantage proposed canal schemes. It is widely recognised that vibrant waterways significantly contribute to economic development, social welfare, wellbeing, environmental enhancement and community benefit. By excluding these positive impacts in their assessments, Severn Trent Water are not reflecting the full value of canal transfers in their draft plan.* | Please refer to Appendix A6 - Water Supply Options |
| C&RT | *The Trust have just embarked on a three-year programme to better define and value the positive impacts that are delivered from our waterways. We would welcome the opportunity to discuss these findings further with Severn Trent Water so that the social and environmental benefits can be factored into their options assessments. In the meantime, we would recommend options are assessed utilising the Defra supported Natural Capital Accounting methodology.* | Please refer to Appendix A6 - Water Supply Options |
| C&RT | *In their dWRMP19, Severn Trent Water have decided not to name the various water treatment sites across their WRZ's and instead have used letters, thereby anonymising them. It would have been beneficial if Severn Trent Water had provided a schematic highlighting the approximate 5 locations of these sites so that opportunities for potential supply solutions are developed accordingly.* | Please refer to Appendix A1 - Customers & Engagement |
| C&RT | ***Canal Scheme Appraisal***<br><br>*The Trust proposed two canal transfer schemes for Severn Trent Water, both utilising the same surplus raw water from the Wolverhampton Levels in Birmingham and including upgrades to the canal network. The schemes were:*<br>• *Transfer 15 Ml/d for abstraction from the Staffordshire & Worcester Canal near Milford (North Staffs WRZ); and*<br>• *Transfer 15 Ml/d to Rugby via Oxford Canal and discharged to River Avon (Strategic WRZ).*<br><br>*We were pleased to see that both schemes were deemed technically and environmentally feasible by Severn Trent Water, but disappointed that neither were taken into their preferred plan. When analysing the detail within the plan, the following questions are raised:*<br>• *Why there is discrepancy on how these options have been assessed across different water resource zones (WRZ's)?*<br>• *Why is there a significant increase in the assessed schemes Capex and Opex compared to those originally proposed by the Trust?*<br>• *Why is the Capex re-investment every 10 years (in both proposed canal schemes) is greater than 50% of the original Capex required and what assumptions have been made concerning this?* | Please refer to Appendix A5 - Water Trading |

| Stakeholder | Comment | Our Response |
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| C&RT | ***1. Option Assessment***<br><br>*The principles behind the schemes proposed by the Trust were to transfer our surplus water to locations where Severn Trent Water could increase their surface water abstractions to existing water treatment works. The published information in the WRZ data tables show a difference in the total option costs, summarised in table 1 below. (Table in original response)*<br><br>*There is also a significant difference (>500%) in the Capex and Opex figures in the data tables from those originally proposed by the Trust for these schemes. There is no clarity or explanation for this variance within the draft plan. Severn Trent Water have subsequently confirmed that they have assumed that isolated treatment and distribution costs will be incurred for these schemes, making them the most expensive resource supply options for these WRZ's.*<br><br>*The Trust would like greater transparency on how these schemes have been assessed to ensure that the optimum supply solutions are developed for Severn Trent Waters customers.* | Please refer to Appendix A5 - Water Trading |
| C&RT | ***2. Capex re-investment***<br><br>*In the published draft plan, Severn Trent Water have provided 80 years of assumed NPV cost data for all schemes that have been technically and environmentally assessed as feasible options.*<br><br>*When analysing the information in the WRZ data tables, it shows that there are a range of Capex re-investment periods and values used for each of the feasible options.*<br><br>*For the canal schemes proposed, Severn Trent Water have assumed a significant (>50%) Capex re-investment is required every 10 years, summarised in table 2 below. (table in original response)*<br><br>*The assumptions Severn Trent Water have made on Capex re-investments, have a significant impact on the overall economic viability of feasible schemes. Hence, the Trust would like to understand the reasoning behind these assumptions so that we are assured that the canal schemes proposed have been evaluated fairly and consistently.* | Please refer to Appendix A5 - Water Trading |
| C&RT | ***Scheme Ref: WIL05 – 35 Ml/d Effluent Reuse***<br><br>*This scheme involves Severn Trent Water diverting final effluent from their Barnhurst sewage treatment works in Wolverhampton, from the canal system into the River Penk to support a 50 Ml/d expansion at Site E WTW, using their abstraction at Witches Oak. This scheme is in Severn Trent Waters preferred plan and is scheduled for delivery in AMP7. The final effluent from Barnhurst is currently supplies treated effluent to the summits of the Shropshire Union Canal and the Staffordshire & Worcester Canal under agreement with the Trust. Implementing this scheme in AMP7 will breach this agreement. The first time the Trust were aware of this was when their dWRMP19 was published. Severn Trent Water failed to communicate the development of this scheme with the Trust and have therefore not recognised any of the commercial, social and environmental consequences which would result.* | We met with the Canal and River Trust on several occasions to discuss their concerns over the inclusion in our preferred plan of a scheme to divert Barnhurst final effluent into the River Penk (a tributary of the River Trent) rather than the Shropshire and Union canal. We agree that our consultation fell short of our standards in this instance. We have considered carefully the points they raised and have re-designed the scheme so that it does not rely on Barnhurst final effluent.<br>We have several alternative options to replace this water, including a revised C&RT option to deliver their 15Ml/day surplus to Fradley. Our analysis of the alternatives and the discussions with potential suppliers will be concluded by March 2019.<br>Please refer to Appendix A5 - Water Trading for more information. |
| C&RT | ***a. Water Resource Impact***<br><br>*The Barnhurst final effluent currently supplies treated effluent to the summits of the Shropshire Union Canal and the Staffordshire & Worcester Canal. It is a water resource that the canal has had benefit from for over 50 years. The Shropshire Union Canal and Staffordshire & Worcester Canal comprise the Shropshire Union and Staffordshire & Worcester (SU&SW) hydrological unit (a hydrological unit being a canal or group of canals that are supplied from the same water sources). Hydrological units which interface with the SU&SW are the Llangollen & North Montgomery Canals, Birmingham Canals Navigation (BCN), Peak & Potteries (P&P) and the River Severn Navigation (see Annex 1). Within the 'Putting the water into waterways' (the Trust's Water Resource Strategy published in 2015), the navigational level of service was defined as "the frequency the Trust would expect a navigational drought to occur". The aspirational level of service is 1 in 20 years: The Trust will maintain and operate the canal network so that drought closures are implemented on average, less than once every twenty years. During the preparation of the Water Resource Strategy, modelling was undertaken using the Trust's Water Resource Model to determine whether the available water resources within our hydrological units are sufficient to meet this level of service. In summary, reducing the quantity of water the Trust receives from Barnhurst will result in failure to meet the Trust's water resources level of service in the SU&SW and P&P. The impact will be particularly severe in the SU&SW where the canal would likely have to close annually (even in the wettest of years).* | Following submission of the draft WRMP and the C&RT response, we are in the process of establishing alternatives ways of supporting the River Trent to increase water availability without detriment to the navigable level of service in the canal network.<br><br>We are in negotiations with several organisations and expect that the re-designed scheme will not require Barnhurst effluent. We will update the option description in the final WRMP document to reflect this. We also agreed to consider using C&RT 15Ml/day surplus, delivered to Fradley, as part of the revised option and we look forward to further discussions on this.<br>Please refer to Appendix A5 - Water Trading for more information. |

| Stakeholder | Comment | Our Response |
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| C&RT | ***b. The Ecological and Engineering Impacts***<br><br>*The Trust has general environmental and recreational duties imposed by section 22 of the British Waterways Act 1995. The Trust is required to carry out its functions in a way that furthers the conservation and enhancement of natural beauty, and the conservation of flora, fauna and geographical or physiographical features of special interest.*<br><br>*Canals are expressly recognised within the definition of water body in the Water Framework Directive (WFD) and approximately 150 canal water bodies within England and Wales have been designated as part of the UK's implementation of the WFD. The Trust positively manages the canals to prevent the deterioration of the status of canal water bodies. In addition, the Trust is committed to support the EA in achieving "good ecological potential" for artificial and heavily modified water bodies; this is a standard which recognises that some water bodies, such as canals, may be incapable of achieving good ecological status because of the uses they serve.*<br><br>*The Trust is concerned that the WFD objectives of canal water bodies were not part of the strategic environmental assessment of the Barnhurst scheme. There are at least five water bodies that would likely see a deterioration of status if the scheme was to progress without mitigation. In addition, the proposed scheme is likely to have a negative impact on the Trust's ability to fulfil its general environmental duties under the 1995 Act.*<br><br>*Water resource modelling has shown the that the proposed scheme will result in canal closure. In lengths of canal that are closed to navigation the significant reduction in water supply will cause water levels to fall with direct adverse impact on the aquatic ecology that the canal presently supports.*<br><br>*Closures will mean cessation of most flows within the downstream section and reductions in water level, typically in warm dry weather. This has clear implications for the health of the fishery as levels of dissolved oxygen fall and ammonia levels rise. In extreme circumstances, if levels dropped significantly, fish rescues may be required along the affected lengths. Maintaining "freshening flows", to protect the fishery if required, will increase the section that must be closed to navigation and may not even be effective as they would be below normal flows in the section and so water levels would still fall.*<br><br>*In addition, reduction in levels could also dry out the submerged tree root zone at the edges of the waterway. This would impact on mature trees alongside the waterway which are a significant landscape feature and adversely affect water voles or crayfish if/where these are present.*<br><br>*The engineering impacts primarily relate to stability of the embankments that provide the structural support to the canal channel. As water levels fall in the unnavigable lengths these embankments will start to dry out. Depending on embankment near surface material and the degree of vegetation cover, shrinkage cracks can appear in the upper 0.6m to 1.0m of the crest. These cracks allow subsequent rain-water and surface drainage to penetrate deeper into the soil reducing surface soil strength locally. They also provide a preferential route for top water leaks when the canal is rewatered.*<br><br>*Lowering of water level, or draining completely, clearly removes the potential for piping failures and breach. However, if there has already been some internal erosion, water content reduction can allow small voids to collapse. On rewatering the collapse material is looser and is then more susceptible to erosion as water begins to flow again. This can be visible as pot-holes appearing at the surface of the embankment due to upward void migration. The Swiss cheese effect then allows more rapid and dangerous leakage to develop when the canal is subsequently rewatered.*<br><br>*The extent to which embankments will react to low water levels will vary from year to year and their engineering performance cannot be precisely predicted. However, there will clearly be increased risk of both additional leakage and potential for breach if the canal is subject to periods of low water level because of the Severn Trent Water proposed diversion of the final effluent at Barnhurst.* | Since the draft WRMP was submitted we have been looking for alternatives to provide the 20Ml/day assumed in the original option. We are in negotiations with several organisations and expect that the re-designed option will not require Barnhurst effluent. We will update the option description in the final WRMP document to reflect this. We also agreed to consider using C&RT 15Ml/day surplus, delivered to Fradley, as part of the revised option and we look forward to further discussions on this.<br>Please refer to Appendix A5 - Water Trading for more information. |

| Stakeholder | Comment | Our Response |
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| C&RT | ***c. The Economic and Wider Impacts***<br><br>*The discharge from Barnhurst provides water that supports some of the busiest stretches of canal in the network. The Shropshire Union Canal and Staffs & Worcester Canal are part of four important cruising rings. Tixall Lock on the Staffs & Worcester Canal and Wheaton Aston Lock on the Shropshire Union Canal annually see around 9,000 boat movement a year.*<br><br>*There are hire bases within these Waterways. As these are typically in use every day over a 4-6-month period and are used exclusively by visitors to the area the hire fleet is the major contributor to the waterway economy. In addition, there are over many private boats spread throughout the Waterways. Other canal activities such as canoeing and angling visits are also dependant on maintaining good water levels in the canal and would be adversely affected by any closures.*<br>*During 2016/17, 4.3 million visitors made an estimated 396 million visits to our waterways. Whilst these may not appear to be dependent on water levels, research has repeatedly shown that a considerable proportion (25% to 40%) of the enjoyment the public derive from waterways and the key driver for their visit is the activity of boats. The "quality of life" benefit also derives from the waterway wildlife, heritage and the greenspace, all of which are dependent on maintaining adequate water levels in the canal.*<br><br>*The Trust earns direct income from boats on the waterway through boat licences, mooring fees and commercial agreements with hire boat operators and mooring basins. The income from boating is reinvested in the maintenance of the waterway but this is dwarfed by the overall economic benefits of the waterway, which includes full time equivalent jobs directly employed on or supported by the canal and a total annual visitor spend.* | Please refer to Appendix A5 - Water Trading |
| C&RT | ***Conclusion***<br><br>*It is the Trust's opinion that Severn Trent Water have produced a draft plan that highlights the issues they face and how they plan to address them. Whilst we don't necessarily agree with all*<br>*their findings, we've been supportive of their inclusive approach. The Trust would like Severn Trent Water to consider the following summarised key points in preparation of their revised draft and final plans:*<br>• *Inclusion of quantified social and environmental costs and benefits for all feasible schemes;*<br>• *Provide greater cost transparency on the assessment of canal schemes and the assumptions made, ensuring that the optimum supply solution is developed for Severn Trent Water customers; and*<br>• *Propose a suitable alternative to Scheme ref. WIL05 which has less commercial, social and environmental consequences and can be implemented over the shorter timescales required. The Trust is keen to offer its support in coming up with an alternative solution.*<br><br>*We look forward to continuing to develop these options further with Severn Trent Water.* | Please refer to Appendix A5 - Water Trading |
| CCWater | *The dWRMP consists of a main document and a number of appendices. Unfortunately the main document lacks detail and clarity, making it difficult to read and assess whether it addresses the significant issues, and whether customers support the proposed actions. Although there is more detail in the appendices, the overall picture lacks clarity.* | Please refer to Appendix A1 - Customers & Engagement |
| CCWater | *This lack of clarity also applies to many of the graphs, tables and maps. For example Fig 8 Unsustainable water bodies and water sources and Fig 9 WFD and RSA abstraction pressures are very busy, complex and not easy to interpret.* | Please refer to Appendix A1 - Customers & Engagement |
| CCWater | *The summary on page 7 is at a very high level, focused on principles and does not provide a real summary of the plan; there is a sense of scope but no sense of scale. This means the document needs to be read in its entirety to get any idea of the key issues and proposed solutions and this may affect the level of response to the dWRMP. We would like the company to produce a customer friendly overview and / or Executive Summary that utilises easily understandable figures (we note that other companies have made really good use of infographics).* | Please refer to Appendix A1 - Customers & Engagement |

| Stakeholder | Comment | Our Response |
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| CCWater | *The plan looks at the period to 2045. We are aware of other companies who have given a bigger picture of future challenges. We understand that Severn Trent's plans for the next 25 years are extensive and there was therefore a need to concentrate efforts on getting this right for customers. However, it would be valuable to have some indication of the company's view on the full extent of the time horizon covered by the Water UK sponsored study of long term water balance.* | Please refer to Appendix B3 - Decision Making & Assurance |
| CCWater | *Increasing resilience, specifically relating to drought, is a priority area for customers and therefore CCWater so we welcome your focus and approach in this area. We feel Severn Trent have identified and addressed risks that mean they will be able to maintain supplies under extreme conditions such as, for example, 1:200 drought or flood event.* | The comment made by CCWater regarding our focus and approach to increasing the resilience of water supply to our customers is acknowledged. Further information regards consultation responses associated with our approach to resilience is available in Appendix B7 - Resilience. |
| CCWater | *We note the focus on demand side savings but we seek assurance that the impact suggested is based on robust modelling, has been assured and is realistically deliverable.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| CCWater | *We would like to see more in the plans about intergenerational issues and how the plans Severn Trent have put together now are fair to current and future customers. In particular we are interested in the ways that the company has elicited customer views on this issue.* | Please refer to Appendix A1 - Customers & Engagement |
| CCWater | *Throughout the preparation of the dWRMP the company have engaged a wide range of stakeholders. We are aware that a lot of customer research has been conducted on various issues and that the outputs have influenced this plan, but this is not reflected in the content. Severn Trent needs to show how customers' views have shaped this plan and what changes have been made to accommodate customer opinions. The final section of the summary (p8), titled 'Understanding the views of our customers and wider stakeholders', only refers to stakeholders. There is no reference to customers or how customer insight has been used in shaping the plan. This is repeated at the bottom of page 14 and page 18. Customer and customer research should be reflected throughout the whole document and not as what appears to be an 'add on' through pages 45/46.* | Please refer to Appendix A1 - Customers & Engagement |
| CCWater | *Severn Trent's leakage plans after 2025 are not very ambitious compared to other plans, even though customer research for PR19 has shown this continues to be a high priority to customers. Table 2 'Proposed leakage targets' shows that the company plans to principally target leakage reduction in their Nottingham and Strategic Grid water distribution zones. We are aware of the reasons for targeting these zones, but it is unclear whether customers support this approach. Although these zones have the most significant water resource issues, do they also have the highest levels of leakage?* | Please refer to Appendix A2 - Leakage |
| CCWater | *It is not clear what influence retailers have had in informing the dWRMP. What contribution will non-domestic customers make on water efficiency? Although this is a matter for retailers, how are Severn Trent factoring business use into their strategy / plan and have retailers agreed to the assumed reductions Severn Trent are forecasting?* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| CCWater | *In Section 4 'Our current approach' it states: 'Figure 3 illustrates that the long term downward trend in water into supply has been achieved against a backdrop of steadily growing regional population'. However, when you look at Fig 3 from 2012 – 13 there has been an upward trend in average DI; this requires an explanation.* | Please refer to Appendix B4 - Demand Forecast |
| CCWater | *In Section 5 'Our response to future water supply challenges'; in the second paragraph on page 14, it states 'We are seeking supply / demand solutions that could give us additional resilience benefits for no additional cost …'. Is this correct? More detail on this point would be useful. Figures 5 – 7 in this section would also benefit from a clear narrative to explain the supply / demand shortfalls.* | The CCWater's comments regarding the narrative for Figures 5 -7 in Section 5 is acknowledged. These figures are to be updated during preparation of our final WRMP and will be accompanied by appropriate commentary.<br>Please refer to Appendix A6 - Water supply options and B7 - resilience for more information |
| CCWater | *We feel Severn Trent need to reflect some of the challenges it is likely to face in implementing the demand management proposals. How does the company plan to overcome possible negative customer perception on issues such as metering that its own recent customer research has identified.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |

| Stakeholder | Comment | Our Response |
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| CCWater | *We are aware through discussions with the company that the water trading component of the plan has developed since the dWRMP was published. We understand that all the relevant water companies continue to have discussions regarding the various proposed water trades and how changes will impact each of their plans. This section needs to be clearer about the status of the companies' agreements. It would be helpful for this plan to provide a summary of the rationale, including the supply / demand challenges the company face.* | Please refer to Appendix A5 - Water Trading |
| CCWater | *We support the exploration of options for future water trading, such as the potential trade between United Utilities, Severn Trent, Thames and possibly Welsh Water. We recognise the potential benefits this may bring to customers in water stressed areas. However, we would not wish to see customers face a cost burden from preparatory work unless this is mandated by Government or the regulators, or research indicates customers are willing to pay for this. If costs are added to Severn Trent customers' bills we would expect the investment to produce a return for these customers in the future. Hence, more work needs to be done on the costs associated with this and what customers' views are. The companies should also look at whether this scheme would be better developed as an unregulated project so that there would be no cost impact on monopoly water customers.* | Please refer to Appendix A5 - Water Trading |
| Doncaster Council | *Given the southern half the borough of Doncaster is covered by the Severn Trent Water company and some of the main parts of your plan are to provide for sustainable abstraction, supply resilience and maintain supply over the next 25 years I am taking this opportunity to make you aware of Doncaster's work toward developing the town's new Local Plan.*<br>*The Council is currently preparing a new Local Plan to determine where and how much new development should take place in the Borough. For housing this is based on a local 'objectively assessed housing need' in the range of 912 new homes per year until 2033. This growth will be in the main urban area for the most part, with lesser growth planned for some main towns, service towns and villages. Please note this figure may change as the plan evolves, but we are currently planning for housing growth which may be around 15,000 new homes in Doncaster by 2032 . Areas which we are proposing for growth within the Severn Trent catchment include and very small part of the main urban area, Rossington, Auckley and Hayfield Green (DSA airport), Bawtry, Edlington and Finningley. The actual amount of growth within these areas is however, still being determined. We wish to avoid any capacity issues or other associated constraints when we publish our draft housing growth options in these areas around Doncaster.*<br><br>*We would also appreciate an appropriate contact person to send our consultation representations to, to ensure we get valid feedback with regard to the development of our Local Plan.* | Please refer to Appendix B4 - Demand Forecast |
| EA Evidence report | ***Recommendation 1 – Be more ambitious with long term leakage reductions across all zones***<br>***Issue 1.1: Leakage reductions not planned in all zones.***<br><br>***Issue & evidence:*** *The company plan to only reduce leakage across 3 out of its 15 zones and then only a 3% reductions in leakage from 2025 to the end of the planning horizon (2045) The company plans to reduce leakage in only its Strategic grid, Nottingham and Forest & Stroud zones for the entire planning period. The AMP7 reductions do meet Ofwats expectations of 15% but leakage is then held flat in the Notts zone with small reductions in the Grid and Forest & Stroud zones totalling around 3% by the end of the planning period. In light of the company's ambitious metering programme of a 100% coverage by 2035 and the recognition of the additional benefits to supply pipe leakage of external metering it is not clear why leakage reductions are not reflected across all zones.*<br><br>*In addition with leakage reductions not planned across all zones it is not possible to tell if the Willingness to Pay (WTP) reflected this. The company outline a number of engagement exercises throughout their plan, including in Appendix E Section 4.2 - Customer Research. Leakage was identified as a priority for customers throughout a number of these, for instance within the quarterly tracker (58% of customers saying reducing leakage should be a top priority) and the core willingness to pay survey. Precise results of WTP, and the way this has been integrated into the planning model or costs for leakage options are not clear. However, STW comment 'in response to these findings, changes we have made in our final plan include: we have increased our focus on leakage reduction...'. It is interesting, in light of this, that leakage is not planned to be reduced across all zones, and we would recommend that this plan is tested on customers from across all locations to confirm that this is a satisfactory plan for leakage.*<br><br>***Implications:*** *More ambitious leakage reductions for the whole planning horizon and across all zones would benefit security of supplies and the environment.*<br><br>***Information or changes required:*** *The final plan should explain where the benefits from its metering programme have been represented in all zones and also test the planned leakage reductions within different zone on customers from all areas to confirm the targets are acceptable.* | Please refer to Appendix A2 – Leakage |

| Stakeholder | Comment | Our Response |
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| EA Evidence report | ***Recommendation 1 – Be more ambitious with long term leakage reductions across all zones***<br>***Issue 1.2: No detail provided on planned future leakage management technologies or methods (D56, D62, D71)***<br><br>***Issue & Evidence:*** *No detail is provided on planned future leakage management technologies or methods.*<br>*STW has presented a thorough report detailing their options assessment, and advanced investment modelling with a separate leakage module. This allows the optimum amount of leakage reduction to be identified for each zone, and for leakage targets to be input as constraints as well. However, there is no discussion of alternative leakage management technologies within the plan that is provided.*<br>*There are no leakage technologies put forward through the wider options appraisal detailed in Appendix D, other than in relation to supply pipe leakage reductions through metering. Page 9, Section E.1.3 - The Leakage Sub-model of Appendix E states "The effects of active leakage control and mains renewal needed to drive leakage down further for supply-demand purposes are then modelled to produce a 'Final Leakage' projection". Section B4, on pages 59 to 61 provide clarity on current approaches to managing leakage, but innovations planned for the future, new technologies and efficiencies to be found from costs are not provided. A high level summary of the key elements of the future active leakage control policy are provided at the top of page 59, under section B4 of Appendix B, however this does not suggest that new and innovative methods of leakage control have been fully considered.*<br>*There is no information on the detail underpinning the costs of leakage control within the document, so we are not able to say whether this has been fully appraised. Further, in Appendix F, STW show that its assurance review carried out by Jacobs highlighted that the costs of leakage management used in STW's modelling were based on relationships derived at WRMP14, therefore the technologies reflected in the costs and contractual efficiencies may be between five and ten years out of date.*<br><br>*Methods for managing leakage over the plan are provided on Page 59, but these do not reflect the latest innovations for leakage management, and it does not mention the potential for future cost efficiencies arising from innovation in the leakage field. STW do comment on page 18 of its plan that 'through the scenario approach we have been able to understand where we need to improve and innovate our leakage find and fix activities and become more cost effective' which implies that it intends to deliver more ambitious leakage reductions without a corresponding increase in budget through innovation, but the details of this are not provided. Without additional clarification this could represent a risk to the plan.*<br><br>***Implications:*** *The latest technologies for identifying and addressing leakage may not be reflected in the plan, therefore the costs and potential of leakage reduction may not be considered correctly resulting in too little leakage ambition relative to selection of other schemes within the preferred plan.*<br>*This issue affects*<br>• *Security of supply*<br>• *Protection/status of the environment*<br>• *Impact/conflict with other methods/parts of the WRMP*<br><br>***Information or changes required:*** *The final plan should include clarity on leakage management options to achieve targets, and the costs included for existing approaches going forward.* | Please refer to Appendix A2 - Leakage |
| EA Evidence report | ***Recommendation 1 – Be more ambitious with long term leakage reductions across all zones***<br>***Issue 1.3: No clarity on make-up of leakage plans (D69)***<br><br>***Issue & Evidence:*** *The only methods stated within the reporting are active leakage control and mains renewal. However, in the summary statements in Appendix B, Section B4 STW state that it intend to maintain and upgrade existing pressure control valves, and widen the scope of pressure control. This would imply that other options are considered or are considered as part of the Active Leakage Control (ALC) activity. We would suggest that additional insights into the leakage options within the model are provided for reassurance and transparency.*<br><br>***Implications:*** *The latest technologies for identifying and addressing leakage may not be reflected in the plan, therefore the costs and potential of leakage reduction may not be considered correctly resulting in too little leakage ambition relative to selection of other schemes within the preferred plan.*<br>*This issue affects*<br>• *Security of supply*<br>• *Protection/status of the environment*<br>• *Impact/conflict with other methods/parts of the WRMP*<br><br>***Information or changes required:*** *The final plan should include additional information on the various leakage control options included within the cost curve in the model, and the extent to which the combination of policy options is optimised to produce the overall least cost leakage plan.* | Please refer to Appendix A2 - Leakage |

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| EA Evidence report | ***Recommendation 1 – Be more ambitious with long term leakage reductions across all zones***<br>***Issue 1.4: Lack of clarity of Economic & Social costs in relation to leakage options (D63).***<br><br>***Issue & Evidence:*** *It is unclear how environmental costs and benefits associated with leakage management are included within the plan.*<br>*The methods by which STW have evaluated environmental and social costs are provided in Appendix D, Section D8 - Environmental and Social costs. Costs relating to leakage, and the environmental benefits that may be associated with this are not specifically discussed, however the methodology suggests that appropriate steps have been taken to consider this. Page 49 to 50 of Section 8 - 'How We Have Developed A Cost Effective and Sustainable Plan' outlines the approach taken to assessing the environmental impacts of options. However, no specific leakage options were included within the options in Appendix D, therefore we are unclear how environmental costs and benefits associated within the short or long term are included in the planning process. We suggest this is clarified either within the main body of the dWRMP, or within Appendix E where the leakage module of the planning model is discussed.*<br><br>***Implications:*** *Reducing leakage can have environmental benefit, and also costs. The impacts of these should be appropriately included within the plan.*<br>*This issue affects*<br>• *protection/status of the environment*<br>• *impact/conflict with other methods/parts of the WRMP*<br><br>***Information or changes required:*** *The final plan should include clarification on how these have been assessed and included, specific to leakage.* | Please refer to Appendix A2 - Leakage |
| EA Evidence report | ***Recommendation 1 – Be more ambitious with long term leakage reductions across all zones***<br>***Issue 1.5: No mention of the basis for costing Active leakage control (D74, D78)***<br><br>***Issue & Evidence:*** *No mention of the basis for costs clearly provided within the main plan or Appendix B. This is not discussed within the plan. In Appendix F, the Jacobs review identified that WRMP14 costs were being used for leakage control: that would suggest this has not yet been achieved. STW stated they were working to update this.*<br><br>***Implications:*** *Costs may be inaccurate, resulting in errors in the final preferred plan.*<br><br>***Information or changes required:*** *The final plan should include the updated modelling to reflect latest costs within leakage modelling and provide comment on assumptions underpinning the active leakage control curve.* | Please refer to Appendix A2 - Leakage |
| EA Evidence report | ***Recommendation 1 – Be more ambitious with long term leakage reductions across all zones***<br>***Issue 1.6: No mention of the basis for costing burst repairs and mains renewal (D80)***<br><br>***Issue & Evidence:*** *Cost information associated with burst repairs and mains renewal is not provided. Appendix E, Section E1.4 - The Mains Repair Sub-model outlines the use of company-specific burst data to derive deterioration relationships. A simple description is provided which appears sensible, although does not account for more complex interactions. For instance, the influence of weather and climate on the burst rate and hence uncertainty associated with such factors are not discussed. There is no discussion of the basis for cost information associated with the mains repair sub-model, either for repairs or mains renewal therefore we are not able to confirm whether the estimates associated with this activity are sensible.*<br><br>***Implications:*** *Costs for burst repairs and mains renewal may not be appropriate or based on up to date information.*<br><br>***Information or changes required:*** *The final plan should include additional information on the costs associated with burst repairs and mains renewal, and how uncertainty in future burst rates has been handled relating to e.g. weather variables.* | Please refer to Appendix A2 - Leakage |
| EA Evidence report | ***Recommendation 1 – Be more ambitious with long term leakage reductions across all zones***<br>***Issue 1.7: Unclear plans for mains renewal and impact on leakage (D83)***<br><br>***Issue or Evidence:*** *The consideration of mains renewal and the impact this will have on leakage through the plan is not clear. The detail of specific mains renewal schemes is not provided within the documents. It is also not possible to tell whether there is any leakage-driven mains renewal planned as part of the overall mix of activities to manage leakage over the planning period. It is suggested that clarification on this should be provided, or demonstrated through the provision of relevant information associated with the option in line with the WRMP guidance Section 6.7* | Please refer to Appendix A2 - Leakage |

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| | ***Implications:*** *Leakage-driven mains renewal may not have been considered as an option. The reliance on mains renewal to provide a solution for leakage management is unclear and the associated risk is not stated.*<br><br>***Information or changes required:*** *The final plan should include additional information on the planned mains renewal schemes, key drivers for these and specific leakage benefit anticipated that has been integrated into the leakage outcomes.* | |
| EA Evidence report | ***Recommendation 2 – Provide assurance that all options in the preferred programme are achievable or provide alternatives***<br>***Issue 2.1: No assessment of in-combination impacts on WFD status***<br><br>***Issue or evidence:*** *The preferred programme includes 7 schemes to enhance or increase the capacity of the Derwent valley system but the WFD assessment has not assessed the in combination impact of these schemes.*<br>*AMP7:*<br>• *NOT04 Heathy Lea to North Notts transfer solution (25 Ml/d)- would involve increased used of the Derwent Valley.*<br>• *WIL05- Site E WTW abstraction and transfer main supported by raw water augmentation of the River Trent from Barnhurst final effluent (35 Ml/d).This option would also 'use spare water from Carsington' (Appendix D p49) which could mean greater abstraction from the Derwent to Carsington.*<br>• *Site F WTW expansion LIT01 (10 Ml/d). Table 4 p26 of the dWRMP says this will also 'use spare water from Carsington' and the existing abstraction from the Derwent at Little Eaton*<br><br>*AMP 8 & 9:*<br>• *Mel29 Carsington reservoir to site Q WTW + enhancements (30 Ml/d), this will involve more abstraction from the River Derwent into Carsington*<br>• *BAM04 site R WTW to Baslow pipeline increase (20 Ml/d) - this 20 Ml/d will come from a combination of 'existing' spare capacity in the Derwent Valley reservoirs and a reduction in the export of raw water to Yorkshire Water (YWS). It is unclear in addition to the YWS export how much increased abstraction from the Derwent Valley reservoirs is still required.*<br>• *NOT01 Ambergate to Mid Nottinghamshire transfer solution (30 Ml/d). This water will be from the Derwent sources-* [Site R] *WTW and* [Site D] *WTW, therefore is likely to involve increased abstraction from the Derwent.*<br>• *GRD19 DVA to Nottingham transfer pipeline capacity increase (15 Ml/d).*<br><br>*The WFD assessment has not considered the impact on the Derwent catchment of all these schemes operating together.*<br><br>***Implications:*** *The plan may deteriorate the WFD status of the donor catchment.*<br><br>***Information or changes required:*** *The in-combination impact on WFD status of these schemes operating together should be assessed.* | Please refer to Appendix A6 - Water Supply Options |
| EA Evidence report | ***Recommendation 2 – Provide assurance that all options in the preferred programme are achievable or provide alternatives***<br>***Issue 2.2: Ladyflatte borehole refurbishment WFD assessment.***<br><br>***Issue & evidence:*** *The Ladyflatte refurbishment option involves recommissioning this source which stopped abstracting in 2013. The option is scheduled for AMP9 offering 2.7Ml/d of supply benefit to the Strategic Grid. In Appendix B of the WFD assessment for the Ladyflatte borehole refurbishment option concludes that the option may cause deterioration in the groundwater body and the River Ecclesborne catchment and therefore further assessment is required (p25-26).*<br><br>***Implications:*** *The option has the potential to cause WFD deterioration and further assessment is required.*<br><br>***Information or changes required:*** *The company should ensure that the final WRMP does not cause deterioration of WFD status.* | Please refer to Appendix A6 - Water Supply Options |
| EA Evidence report | ***Recommendation 2 – Provide assurance that all options in the preferred programme are achievable or provide alternatives***<br>***Issue 2.3: Thornton Reservoir to site B WTW WFD assessment.***<br><br>***Issue & evidence:*** *This option is to use Thornton reservoir to provide additional supply of raw water to site B WTW. The scheme is scheduled for AMP8 and provide 12Ml/d of supply benefit to the strategic grid. In Appendix A of the WFD assessment it states that this option does not involve additional abstraction from WFD waterbodies- this is not necessarily true, there is likely to be additional water abstracted from Thornton and taken from the Rothley Brook catchment, therefore is the compliant outcome correct?*<br><br>*Implications: The option has the potential to cause WFD deterioration and further assessment is required.*<br>*Information or changes required: The final plan should fully assess the impact on WFD compliance of this option.* | Please refer to Appendix A6 - Water Supply Options |

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| EA Evidence report | ***Recommendation 2 – Provide assurance that all options in the preferred programme are achievable or provide alternatives***<br>***Issue 2.4: East Midlands Raw Water Storage WFD assessment.***<br><br>***Issue or evidence:*** *This option is to abstract from the River Soar during high flows to a nearby disused quarries. The option is due in AMP8 and would provide a supply benefit of 45Ml/d to the Strategic Grid. In Appendix B of the WFD assessment it says that the abstraction would have a HoF of 340 Ml/d at Kegworth which would protect the aquatic environment. However it would be a higher HOF than 340 Ml/d as only a further 17 Ml/d can be licensed with the 340 Ml/d HoF. Further detail is needed regarding the WFD deterioration risk and environmental impacts of this option.*<br><br>***Implications:*** *The option has the potential to cause WFD deterioration and further assessment is required.*<br><br>***Information or changes required:*** *The final plan should fully assess the impact on WFD compliance of this option.* | Please refer to Appendix A6 - Water Supply Options |
| EA Evidence report | ***Recommendation 2 – Provide assurance that all options in the preferred programme are achievable or provide alternatives***<br>***Issue 2.5: Birmingham Groundwater borehole conversion scheme & WFD Assessment***<br><br>***Issue & Evidence:*** *The company currently operate 5 river augmentation boreholes in Birmingham which release into the surrounding tributaries of the River Trent to support a downstream abstraction. The scheme is to convert these augmentation boreholes into direct public supply boreholes. The scheme is scheduled for AMP7 with a supply benefit of 15Ml/d to the Strategic Grid. The WFD assessment concludes that this scheme is WFD compliant but then states 'further assessment is required'. It then goes onto say that 'The abstraction is unlikely to affect the water balance on a groundwater body scale.' We would question this statement owing to the fact that the option will involve conversion from an 'infrequently used' augmentation purpose to continuous public water supply with a potential output of 23Ml/d. It should be noted WFD deterioration and/or serious damage assessments should be based on Recent Actual abstraction amounts rather than Fully Licensed. As this scheme will result in a significant increase in recent abstraction further Hydrogeological Risk Assessment will be required to inform a more comprehensive WFD assessment more reflective the current circumstances. It is not clear of the impact of this option to the existing Witches Oak scheme.*<br><br>***Implications:*** *The option has the potential to cause WFD deterioration and further assessment is required*<br><br>***Information or changes required:*** *The final plan should fully assess the impact on WFD compliance of this option.* | Our initial assessment was based on fully licensed scenarios and we recognise that this should be based on recent actual abstraction volumes instead. As a consequence, we acknowledge that a change in operation will require further assessment and that this may pose a risk of deterioration to the groundwater body. As such, we have altered our assessment to clarify this and to fully indicate the degree of uncertainty presented by this option. This also means that we have highlighted risks for associated surface waterbodies such as River Rea and Hockley Brook. As a consequence, the option has been excluded from the final WRMP19. |
| EA Evidence report | ***Recommendation 2 – Provide assurance that all options in the preferred programme are achievable or provide alternatives***<br>***Issue 2.6: Eggington* [sic] *intake & option MEL29, Carsington Reservoir support to site Q WTW.***<br><br>***Issue & evidence:*** *The company has recently carried out trials on the Eggington* [sic] *intake and found it was unable to reach its full licensed quantity due to pump capacity limitations caused by the dynamic nature of the river channel. The company is also proposing to use Eggington* [sic] *as part of scheme MEL29 which will involve increased supported abstraction at the intake. This scheme will increase the dry weather output from* [Site Q] *water treatment works by increasing abstraction from the River Dove, supported by additional releases from Carsington reservoir. Raw water will be pumped from the Derwent into Carsington and then raw water will be released into the River Dove and abstracted at a new abstraction site near Rollaston* [sic] *on Dove. A new pipeline will then transfer raw water from Rollaston* [sic] *to the existing Eggington* [sic] *intake where it will transferred to Staunton Harold and Foremark reservoir before entering site Q WTW. The scheme will provide 30Ml/d of supply benefit from 2031/32 to the strategic grid.*<br><br>*Implications: There is a risk that the current Eggington* [sic] *intake is compromised due to the geomorphological changes to the channel as well as the Eggington* [sic] *component of option MEL29.*<br><br>*Information or changes required: The company should show how they plan to reduce the risk associated with this intake and assure resilience.* | The understanding of option MEL29 is correct in so far as that the route of raw water to Site Q WTW will be from the River Derwent, via Carsington Reservoir and subsequently discharged into the River Dove. However, the option does not use the existing Egginton intake to abstract water from the River Dove for conveyance to Site Q WTW for treatment.<br><br>Recognising limitations at the existing Egginton intake, the option has been developed on the basis of providing a new river intake further upstream on the Dove (near Rolleston on Dove) to support the existing Egginton intake. From the new abstraction site, a new pipeline will be installed from the new to the existing intake so that connection can be made to the existing transfer mains to the raw water supply reservoirs for Site Q WTW. We are also investigating the work required to improve the existing intake to remove or reduce the restrictions to current operations.<br><br>We consider resilience of water supply at a company-wide level and is not necessarily require at an individual asset level. We will continue to assess resilience and make suitable provision to safeguard customer supply as appropriate. |

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| EA Evidence report | ***Recommendation 2 – Provide assurance that all options in the preferred programme are achievable or provide alternatives***<br>***Issue 2.7: DAM07&DOR05: Reservoir C capacity increase***<br><br>***Issue & evidence:*** *This preferred option is to increase the dry year deployable output of site C WTW by increasing the raw water reservoir capacity and improving capacity of potable water deployment from site C WTW. The option involves increasing storage capacity in reservoir C by 6% which will be filled under the existing abstraction regime (the River Leam and Avon). The scheme is scheduled to be available from 2029/30 with a supply benefit to the strategic grid of 9Ml/d. We have operational concerns with regard to this option because in recent years the company has been unable to fill reservoir C to current storage levels in relatively 'normal' hydrological conditions. As the company are not proposing to develop/ increase raw water supplies into the reservoir there is a risk that increasing capacity will not actually result in an increase in resources.*<br><br>***Implications:*** *There is a risk that this option is not viable which may have implications on security of supply.*<br><br>***Information or changes required:*** *The final plan should address the current issue with refill and provide assurance that the scheme is viable or provide alternative options.* | Please refer to Appendix A6 - Water Supply Options |
| EA Evidence report | ***Recommendation 2 – Provide assurance that all options in the preferred programme are achievable or provide alternatives***<br>***Issue 2.8: UNK07 Tittesworth***<br><br>***Issue & evidence:*** *Tittesworth and Leek Options; final agreement on options and sustainability reductions has been deferred until Lower Churnet Desk Study is reviewed, which should contain critical information to inform decision making. This option may need reviewing once this work has been finalised.*<br><br>***Implications:*** *There is a risk that this option is not viable which may have implications on security of supply.*<br><br>***Information or changes required:*** *The final plan should provide assurance that the scheme is viable or provide alternative options.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| EA Evidence report | ***Recommendation 2 – Provide assurance that all options in the preferred programme are achievable or provide alternatives***<br>***Issue 2.9: GRD Clungunford/ Oakley Farm***<br><br>***Issue & evidnce:*** *GRD16 Clungunford / Oakley Farm BH enhancements (licence exempt). In relation to Oakley farm, there are WFD SW Body compliance issues associated with this proposal. Further detail would be required to assess the proposal, until we receive all New Authorisation applications we're unable to determine/confirm the acceptability of the licence or any licence conditions'. A 'no deterioration' investigation has been assigned to the Clungunford licence.*<br><br>***Implications:*** *The option has the potential to cause WFD deterioration and further assessment is required*<br><br>***Information or changes required:*** *The final plan should fully assess the impact on WFD compliance of this option.* | Please refer to Appendix A6 - Water Supply Options |
| EA Evidence report | ***Recommendation 2 – Provide assurance that all options in the preferred programme are achievable or provide alternatives***<br>***Issue 2.10: BHS03 Preston Brockhurst***<br><br>***Issue & evidence:*** *BHS03 Preston Brockhurst asset enhancements. The site falls within the Shropshire Middle Severn East Shropshire PT SST Groundwater Body (GWB). This GWB is at poor quantitative status (failure of GW balance and SW Dependent Tests). As a result we need to ensure that there is no 'growth' in GW abstraction (no deterioration) and consider a future 'pathway to good' (Sustainable Catchments). The option is also located in a Groundwater Management Units where the current status is "Water Not Available for Licensing", It should also be noted that local SWBs are compliant at present, however increases in actual abstraction could result in flow failure (Surfacewater body) SWB AP6, Rodington.*<br><br>*Implications: The option has the potential to cause WFD deterioration and further assessment is required*<br><br>*Information or changes required: The final plan should fully assess the impact on WFD compliance of this option.* | Please refer to Appendix A6 - Water Supply Options |

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| EA Evidence report | ***Recommendation 3: Continue to work with neighbouring companies and regional water resource collaborations to assess development of shared resources and transfers into and through Severn Trent Water's network***<br>***Issue 3.1: Yorkshire Water reduced transfer.***<br><br>***Issue & Evidence:*** *Severn Trent Water's preferred programme of measures to address the deficits in the strategic grid includes a reduction in its bulk supply from the Derwent valley reservoirs to Yorkshire Water (YWS). The plan is to reduce the transfer from 2027/28 as part of the site R WTW to Baslow pipeline option. However the reduction in bulk supply is not reflected in YWS draft plan.*<br><br>***Implications:*** *If the company are unable to secure a reduction in the bulk supply to YWS it could impact on security of supplies.*<br><br>***Information or changes required:*** *The company should clarify these reductions with YWS and ensure consistent reporting in the final WRMP.* | Please refer to Appendix A5 - Water Trading |
| EA Evidence report | ***Recommendation 3: Continue to work with neighbouring companies and regional water resource collaborations to assess development of shared resources and transfers into and through Severn Trent Water's network***<br>***Issue 3.2: Anglian Water transfer option (RTN7)***<br><br>***Issue & Evidence:*** *Anglian Water's preferred programme of measures to address deficits in its Ruthamford North zone includes a 36Ml/d import from Severn Trent Water's Strategic Grid zone (Section9.3 p121 of AW's dWRMP19). The import is scheduled to start in 2030/31 at a rate of 24.96Ml/d increasing to 36Ml/d by 2039/40. This transfer is not reflected in Severn Trent's Strategic Grid tables and the transfers described in Appendix D4.2 of SvT's plan are named differently reducing transparency.*<br><br>***Implications:*** *SvT's Supply-Demand Balance may be adversely affected over the duration of the plan by this potential increase in exports to Anglian Water.*<br><br>***Information or changes required:*** *The company should clarify this new transfer with Anglian Water and report any exports through the relevant planning table.* | Please refer to Appendix A5 - Water Trading |
| EA Evidence report | ***Recommendation 3: Continue to work with neighbouring companies and regional water resource collaborations to assess development of shared resources and transfers into and through Severn Trent Water's network***<br>***Issue 3.3: South Staffordshire Water Perry Bar Trade.***<br><br>***Issue & Evidence:*** *South Staffordshire Water's draft preferred plan includes a constant 20Ml/d import from Severn Trent Water from 2025/26. The import is to address engineering resilience as the company undertake extensive work on two of its major water treatment works. The import has been labelled 'Perry Bar trade'. The Perry Bar trade is not included as an export in Severn Trent Water's planning tables and as such has not been taken into account in the companies supply demand balance. Appendix D4, table D4.6 does include some detail of the trade.*<br><br>***Implications:*** *SvT's Supply-Demand Balance may be adversely affected over the duration of the plan by this potential increase in exports to South Staffordshire Water.*<br><br>***Information or changes required:*** *The company should clarify this transfer with South Staffordshire Water and report any exports through the relevant planning table.* | Please refer to Appendix A5 - Water Trading |

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| EA Evidence report | ***Recommendation 4 – Demonstrate that forecast metering increases and associated demand savings are deliverable***<br>***Issue 4.1: Deliverability of the planned metering programme***<br><br>***Issue & Evidence:*** *The company plan to have a 100% metering by the end of AMP9 (2035) through a 'persuaded optant' programme. The company are not in a 'seriously water stressed area' and measured properties are defined by those properties whose bills are based on metered quantities. As the company is aware 100% metering is a very hard target to achieve with many companies with compulsory metering legislation still unable to hit such a coverage. We are supportive of the company's direction of travel on metering and the additional leakage benefits it could provide but we have reservations that if 100% metering is realistic to achieve through a 'persuaded optant' programme alone. The Environment Agency's representation on Severn Trent Water's water resources management plan*<br>*The expected savings and uptake rate of the 'persuaded optant' metering are large, however, as the unmetered customer base declines it may become more difficult to encourage customers to switch onto a metered tariff, as they would be more likely to pay more for their water. The more reluctant switchers may conceivably have a smaller savings in water use 'post-switch'. This decay rate of uptake and savings does not appear to have been included within the company's forecast, so it would be useful to have additional explanation on these assumptions in the plan.*<br>*Also an effective metering programme should be informed by previous experiences of metering programmes, customer views and include provision to support customers in reducing the amount of water they use, e.g. through water audits and water efficiency advice. Additional information on this in the plan would add credit to the programme especially in light of the company's past performance on meter uptake (not achieved planned target since 2011/12 - Annual review data) and current starting point of around 41%.*<br><br>***Implications:*** *There is a potential risk to security of supply and the resilience of its network if the company are unable to achieve its ambitious preferred programme. There is also the potential risk to the environment if the programme is delayed and sustainability reductions are postponed.*<br><br>***Information or changes required:*** *In the revised WRMP the company needs to provide further assurance that the metering programme is achievable and assess the risks to security of supply and the environment if metering penetration is below forecast.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| EA Evidence report | ***Recommendation 5 – Demonstrate that security of supply will be maintained while the planned supply schemes are implemented***<br>***Issue 5.1: Deliverability of supply side programme.***<br><br>***Issue & Evidence:*** *The company has taken a 'low regrets' approach to developing its preferred programme and has a suite of flexible small to medium schemes through AMP7, AMP 8 and beyond. The company plan to complete ten supply side schemes in AMP7, seven of which involve the enhancement or expansion of water treatment works - five of which are within the strategic grid. This is large programme of work to be delivered in a relatively short timeframe with treatment works either turned off or run at reduced production. The company need to provide assurance that the plan is deliverable without compromising security of supplies.*<br><br>***Implications:*** *There is a potential risk to security of supply and the resilience of its network if the company are unable to achieve its preferred programme. There is also the potential risk to the environment if the programme is delayed and sustainability reductions are postponed.*<br><br>***Information or changes required:*** *In the revised WRMP the company needs to provide further assurance that the preferred suite of supply side options are deliverable within the planned timeframes and assess the risks to security of supply, the resilience of its network and the environment if schemes are delayed.* | Please refer to Appendix A6 - Water Supply Options |
| EA Evidence report | ***Recommendation 6 – Ensure your plan is legally compliant by adhering to the WRMP Directions:***<br>***Issue 6.1: The WRMP does not provide the change in annual risk of temporary use restrictions, ordinary drought orders and emergency drought orders***<br><br>***Issue & Evidence:*** *The company does not show how the risk of temporary use restrictions, ordinary drought orders and emergency drought orders changes over the planning period. Direction 3 (b) 'a water undertaker must include …. how it expects the annual risk that it may need to impose prohibitions or restrictions on its customers under each of those provisions to change over the course of the planning period as a result of the measures which it has identified in accordance with section 37A(3)(b)'*<br><br>***Implications:*** *The company is not compliant with Direction 3(b).*<br><br>***Information or changes required:*** *The company must provide detail of how the annual risk of temporary use restrictions, ordinary drought orders and emergency drought orders changes over the planning period.* | Please refer to Appendix B5 - Drought Risk |

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| EA Evidence report | ***Recommendation 6 – Ensure your plan is legally compliant by adhering to the WRMP Directions:***<br>***Issue 6.2: WRMP does not provide the assumptions used to estimate the risk of temporary use restrictions, ordinary drought orders and emergency drought orders***<br><br>***Issue & Evidence:*** *The company does not explain the assumptions it has made to estimate how the risk of temporary use restrictions, ordinary drought orders and emergency drought orders changes over the planning period (linked to Direction 3(b) above).*<br>*Direction 3 (c) ' a water undertaker must include in its water resources management plan a description of the following matters - the assumptions it has made to determine the estimates of risks under sub-paragraph (b)'*<br><br>***Implications:*** *The company is not compliant with Direction 3(c).*<br><br>***Information or changes required:*** *The company must provide the methodology and assumptions it has used to calculate the annual probability of temporary water use restrictions, ordinary drought orders and emergency drought orders. The company must include assumptions about the severity of drought it has used and the methodology must refer to both the annual percentage of risk over the 25 years and the changes over the 25 year period.* | Please refer to Appendix B5 - Drought Risk |
| EA Evidence report | ***Recommendation 6 – Ensure your plan is legally compliant by adhering to the WRMP Directions:***<br>***Issue 6.3: The company has not described the impacts of climate change on each of its options in the final planning scenario***<br><br>***Issue & Evidence:*** *The company has not described the impacts of climate change on each of its options in the final planning scenario. This is required by Direction 3(e)(i). Direction 3(e)(i) Describe the assumptions made regarding the implications of climate change, including in relation to the impact on each of its supply and demand measures The company has not described the impacts of climate change on each of its options in the final planning scenario. This is required by Direction 3(e)(i). The company must include an assessment of the impacts of climate change on each of its measures in the final planning scenario to meet Direction 3(e)(i).*<br><br>***Implications:*** *The company is not compliant with Direction 3(e).*<br><br>***Information or changes required:*** *The company must include an assessment of the impacts of climate change on each of its measures in the final planning scenario to meet Direction 3(e)(i). This should include as assessment of both supply-side and demand-side options.* | Please refer to Appendix B2 - Climate Change & Uncertainty |
| EA Evidence report | ***Recommendation 6 – Ensure your plan is legally compliant by adhering to the WRMP Directions:***<br>***Issue 6.4: The company has not provided an individual assessment of the cost-effectiveness of each of the metering options.***<br><br>***Issue & Evidence: Direction 3 (h) Describe its assessment of the cost-effectiveness of domestic metering types.***<br>*The company has not provided an individual assessment of the cost-effectiveness of each of the metering options, including compulsory, selective, change of occupier and optant to allow a comparison of each metering type. This is required by Direction 3(h).*<br>*The company must provide an assessment of the cost-effectiveness of each type of metering to meet Direction 3(h). This should be presented individually to allow a comparison of each metering type.*<br><br>***Implications:*** *The company is not compliant with Direction 3(h).*<br><br>***Information or changes required:*** *In the final plan the company must provide an assessment of the cost-effectiveness of each type of metering to meet Direction 3(h). This should be presented individually to allow a comparison of each metering type.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |

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| EA Evidence report | ***Improvement 1 – Provide more clarity on the required sustainability changes and how they will affect supply***<br>***Issue 1.1: Reconciling reductions with information in plan documents***<br><br>***Issue & Evidence:*** *We are pleased that the company plan to address its unsustainable abstractions as quickly and cost effectively as possible and we will continue to work with the company on this challenging task. However the sustainability reductions in the baseline planning tables do not align with the information within the planning documents. The sustainability reductions outlined Appendix A5 in tables A5.2 (WFD and RSA combined) don't correspond with the sustainability reductions in the planning tables, Tab 2. BL Supply, row 8.2BL for the following zones;*<br>• *Strategic Grid (85Ml/d in tables v 23.3-25.6 Ml/d in table A5.5)*<br>• *Nottingham (30 Ml/d in tables v 84.8 Ml/d in appendix A, table A5.5 - although I expect the Notts and grid figures have been mixed up in table A5.5 but still a small discrepancy in Notts zone)*<br>• *Forest & Stroud (6Ml/d in tables v 3.5-4.7 Ml/d in Appendix A, table A5.2)*<br>• *Shelton (14Ml/d in table v 18.6-22.1 in Appendix A)*<br>• *North Staffs (36Ml/d in tables v 30.3 - 30.5 in Appendix A)*<br>• *Newark (0 in tables v 1.6 in Appendix A)*<br>• *Staffordshire (0 in tables v 0.7 - 1.2 in Appendix A)*<br>• *Wolverhampton (0 in tables v 3.9 in Appendix A)*<br><br>***Implications:*** *The plan lacks transparency and may have an impact on the supply demand balance of each of these zones.*<br><br>***Information or changes required:*** *In the final plan the commentary should be consistency with the sustainability reductions included in the planning tables.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| EA Evidence report | ***Improvement 1 – Provide more clarity on the required sustainability changes and how they will affect supply***<br>***Issue 1.2: WINEP & Option appraisal.***<br><br>***Issue & Evidence:*** *Appendix A4 and the main plan commentary will require updating following the conclusions of the AMP6 options appraisal*<br><br>***Implications:*** *The final plan should reflect WINEP3 and option appraisal conclusions.*<br><br>***Information or changes required:*** *The final plan should be updated accordingly.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| EA Evidence report | ***Improvement 1 – Provide more clarity on the required sustainability changes and how they will affect supply***<br>***Issue 1.3: Alternative to the Ecological Flow Indicator (EFI).***<br><br>***Issue & Evidence:*** *The plan refers to the use of a sustainable abstraction figure as an alternative to the Environment Agency's standard benchmark - the ecological flow indicator.*<br><br>*In Appendix A on page 59 it states 'We used historical datasets and predictive tools like groundwater models and hydro-ecology relationships to drive sustainable abstraction figures. We have used our sustainable abstraction figures, as opposed to the EFI, to determine what sustainability changes we may require in the future to prevent deterioration. These figures are still being developed and will be included in our final WRMP. '*<br>*We are currently working with the company to ensure any alternative to the EFI provides an adequate level of environmental protection.*<br><br>***Information or changes required:*** *Any alternative to the Environment Agency's standard ecological flow indicator should be agreed with us.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| EA Evidence report | ***Improvement 1 – Provide more clarity on the required sustainability changes and how they will affect supply***<br>***Issue 1.4: Surface Water Sources with Hand Off Flows.***<br><br>***Issue & Evidence:*** *The company has assumed surface water abstractions with Hands off flows (HoF) have already been investigation and measures identified or implemented.*<br><br>*In Appendix A, page 59 the company state that 'For our surface water sources, the EA only classified a relatively small number as category 1 or 2. Out of this modest number of sources there are hands off flows (HoF) conditions in many of the licences. If a licence has a HoF in it then this provides appropriate protection for the environment. If the HoF is not considered appropriate then we will have already investigated the sources as part of previous Habitats Directive (HD) or Low Flows programmes.'*<br>*For example this is not quite correct for Egginton. Egginton is classed as Cat 2. The licence has two residual flow conditions, 159 Ml/d and 90 Ml/d. The impacts of the 90 Ml/d condition has not yet been investigated.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |

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| | ***Implications:*** *If the potential impact of sources such as Eggington* [sic] *have not been appropriately assessed then this could have an impact on security of supply and the local environment.*<br><br>***Information or changes required:*** *The final plan should review the sustainability scenarios to ensure all surface water sources have been appropriately considered.* | |
| EA Evidence report | ***Improvement 1 – Provide more clarity on the required sustainability changes and how they will affect supply***<br>***Issue 1.5: Range of DO losses considered in scenario modelling***<br><br>***Issue & Evidence:*** *The company has modelled 3 scenarios for WFD no deterioration impacts and presented the DO losses in Table A5.1, appendix A. It unclear from the text which scenario has been used to populate the baseline sustainability reductions in the planning tables in all but three zones; Bishops Castle, Mardy and Whitchurch/ Wem zones where the low loss DO scenario has been used.*<br><br>***Implications:*** *The plan lacks transparency and may have an impact on the supply demand balance of each of these zones.*<br><br>***Information or changes required:*** *The plan needs to be clear and transparent on the zonal DO losses from WFD no deterioration impacts. This should include an explanation and justification if different loss scenarios have been used for different zones.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| EA Evidence report | ***Improvement 2 – Consider options for reducing outage and treatment works losses and operational use***<br>***Issue 2.1: Outage as an option***<br><br>***Issue & Evidence:*** *Appendix A6.6 of the plan provides the following information on reducing future outage risk: In this section the company state that when the dWRMP18 was submitted the PR19 capital maintenance programme and beyond was still being formulated.*<br><br>***Implications:*** *Potential impacts on security of supply if the maintenance programme hasn't been incorporated into the outage assumptions.*<br><br>***Information or changes required:*** *The fWRMP should be updated to reflect the PR19 maintenance programme if outage is not considered then this should be explained.* | Please refer to Appendix B6 - Outage |
| EA Evidence report | ***Improvement 2 – Consider options for reducing outage and treatment works losses and operational use***<br>***Issue 2.2: Changes to Outage allowance***<br><br>***Issue & Evidence:*** *The plan reports a flat rate of outage for all zones including those with new sources. Outage allowance should be re-assessed across the planning period where significant changes to the supply system are planned to take into account the risk around source failure of new/ enhanced schemes.*<br><br>***Implications****: The risk around supply failures of new schemes has not been considered in the final plan outage allowance which may impact security of supplies*<br><br>***Information or changes required:*** *Outage allowance should be re-assessed as new schemes come on line in the final planning horizon.* | Please refer to Appendix B6 - Outage |
| EA Evidence report | ***Improvement 2 – Consider options for reducing outage and treatment works losses and operational use***<br>***Issue 2.3: Treatment work losses***<br><br>***Issue & Evidence:*** *Treatment works losses and operational use reduction are not considered whilst there are deficits in a number of zones (zones listed in Section column).*<br><br>***Implications:*** *The company should consider all feasible options*<br><br>***Information or changes required:*** *The company should assess the option of reducing treatment work losses.* | Please refer to Appendix B6 - Outage |

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| EA Evidence report | ***Improvement 3 – Consider the effects of long duration droughts on Sherwood Sandstone sources***<br>***Issue 3.1: Resilience of sandstone to climate change and droughts.***<br><br>***Issue & Evidence:*** *The company has assessed the impacts of the majority of its sources to droughts and climate change but has carried out a very limited assessment on the sandstone. In Appendix A3: 'Impacts of climate change, how it has been estimated and results' the company's assessment of climate change is limited to the sources that were initially screened as vulnerable to level or flow changes (15% of groundwater sources). This limited assessment implies that the characteristics of the high storage Triassic Sherwood Sandstone will be otherwise resilient to climate change. To put some context to this following the drought that ended in April 2012 which was one of the worst in the past 100 years, we saw a number of key groundwater level hydrographs in the Midlands record the lowest levels since monitoring started (typically in the mid to late 1970s). The Environment Agency was concerned about the impact that another (3rd) dry winter would have, so commissioned a programme of predictive modelling to quantify the response of the Permo-Triassic Sandstone to different climate scenarios. This modelling generally predicts that the Sandstone is resilient for a period covering 2 dry winters (similar to those in 2011 and 2012). However, continued "dry" or "very dry" weather scenarios extending beyond a 3rd winter would see significant impacts. Therefore the plan should recognise that the resilience of the Sandstone has limitations and an extended period of dry weather resulting from climate change (as per the scenario described above) could result in serious impact on the resilience of groundwater sources along with significant environmental impacts and WFD deteriorations. STW should acknowledge this additional risk and should re-evaluate the screening of options in their groundwater vulnerability assessment (pg34, pg40 & pg44) and consider the scenarios used to evaluate climate change. This may also impact its drought resilience assessment.*<br><br>***Implications:*** *The plan may have underestimated the impact of climate change and drought resilience of its sandstone sources. This could have an impact on security of supply and the environment.*<br><br>***Information or changes required:*** *For the final plan the company should re-evaluate the screening of options in their groundwater vulnerability assessment (pg34, pg40 & pg44) and consider the scenarios used to evaluate climate change and its drought resilience assessment.* | Please refer to Appendix B5 - Drought Risk |
| EA Evidence report | ***Improvement 4 – Address inconsistencies in the water resource planning tables***<br>***Issue 4.1: More than 3% difference between sum of the micro-components and reported PCC values.***<br><br>***Issue & Evidence:*** *For baseline and final plan measured household and unmeasured households the sum of the micro-components is more than 3% different to the reported per capital consumption. In table 'Appendix 1' the company has provided the adjustments required to account for the 3% different due to water efficiency savings.*<br><br>***Implications:*** *The micro-component values cannot be accurately compared with other companies and do not reflect the full breakdown of the PCC.*<br><br>***Information or changes required:*** *The company should incorporate the adjustments identified in appendix 1 around water efficiency within the relevant planning tables.* | Please refer to Appendix B4 - Demand Forecast and Appendix B10 WRMP table corrections. |
| EA Evidence report | ***Improvement 4 – Address inconsistencies in the water resource planning tables***<br>***Issue 4.2: Option costs have not used the updated method that came out with Table v12***<br><br>***Issue & Evidence:*** *In a number of WRZ the company has not updated the way options are costed.*<br>*The cost information provided by SvT is incorrect for the following zones;*<br>*Bishops Castle, Llandinam & Llanwrin, Rutland*<br><br>***Implications:*** *Lack of clarity to the plan.*<br><br>***Information or changes required****: SvT should update the cost calculation for those zones affected* | Please refer to Appendix A6 - Water Supply Options |
| EA Evidence report | *I****mprovement 4 – Address inconsistencies in the water resource planning tables***<br>***Issue 4.3: Measured and Unmeasured Household – USPL calculation***<br><br>***Issue & Evidence:*** *From 2024/25 the company has overwritten the equations in the Tables to calculate 36FP - Measured Household – USPL and 37FP - Unmeasured Household – USPL.*<br><br>***Implications:*** *It is unclear how the final plan mHH and umHH Underground Supply Pipe Leakage (USPL) values have been derived and the options to change USPL are not properly defined.*<br><br>***Information or changes required:*** *The company should use Table 6 to define the options that will reduce USPL and feed those values into Table 8 rather than entering values.* | Please refer to Appendix B4 - Demand Forecast and Appendix B10 WRMP table corrections. |

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| EA Evidence report | ***Improvement 4 – Address inconsistencies in the water resource planning tables***<br>***Issue 4.4: Type of Option***<br><br>***Issue & Evidence:*** *Type of Option has not been entered correctly in Table 5 for all options*<br><br>***Implications:*** *Not possible to compare option costs with other company option costs by type of option*<br><br>***Information or changes required:*** *SvT need to enter Type of Option using the values provided at the bottom of Table 5 in the WRMP Template* | Please refer to Appendix B10 - WRMP Table Correction |
| EA Evidence report | ***Improvement 4 – Address inconsistencies in the water resource planning tables***<br>***Issue 4.5: Table 5 data in a different order***<br><br>***Issue & Evidence:*** *SvT have not swapped around HH 61.1a and 61.2a with NHH 61.3a and 61.4b as outlined in update notes for version 13 and 14 of the analysis tables.*<br><br>*Implications: It is more difficult to directly compare the values provided by SvT with other companies as they are in a different order*<br><br>*Information or changes required: SvT should update their tables to provide the information in the order requested.* | Please refer to Appendix B4 - Demand Forecast and Appendix B10 WRMP table corrections. |
| EA Evidence report | ***Improvement 4 – Address inconsistencies in the water resource planning tables***<br>***Issue 4.6: Sustainability Change adjustment***<br><br>***Issue & Evidence:*** *In the Strategic Grid zone SvT has included sustainability reductions in table '2 BL Supply' in row 8.2BL starting from 2025/26. These values have then been overwritten by a new component - 7.1FP – in Table 7 to take account of the need to delay sustainability reductions to AMP8.*<br><br>***Implications:*** *The values in 7.1 replace the Sustainability Changes in 8.2BL reducing transparency and consistency with other companies.*<br><br>***Information or changes required:*** *SvT should put the profile for sustainability changes in 8.2BL and not have an unseen adjustment in Table 7. The company can include commentary in the main plan explaining the delay in delivery.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| EA Evidence report | ***Improvement 5 – Ensure the environment is appropriately considered in its options appraisal***<br>***Issue 5.1: Selection of reasonable alternatives.***<br><br>***Issue & Evidence****: The stages associated with selecting reasonable alternatives are presented in Sections 1.4.3 and 4.3.1 and section 6. The options discounted and the reasons why they were 'scoped out' is discussed in the main dWRMP (pages 47 - to 50) and the optional appraisal process is covered in Appendix D of the main dWRMP. However, it is not clear how the lowest cost options were amended to take account of the environmental constraints to give the hybrid low cost/ best environmental options that becomes the preferred programme.*<br><br>***Implications:*** *It is not clear how the alternatives were selected and influenced by the SEA.*<br><br>***Information or changes required:*** *The final SEA should provide reasons for selecting the alternatives dealt with, and why others were discounted. Section 5.3 sets out how the feasible list was developed and provides examples of where the environmental and social assessments have driven the reduction of the constrained list to the feasible list. These detailed assessments should be cross referenced.* | Please refer to Appendix A6 - Water Supply Options |

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| EA Evidence report | ***Improvement 5 – Ensure the environment is appropriately considered in its options appraisal***<br>***Issue 5.2: Monitoring Plan***<br><br>***Issue & Evidence:*** *An SEA should include a monitoring plan to enable early identification of unforeseen adverse effects, and to enable appropriate action to be undertaken.*<br><br>*The monitoring section of the company's SEA report sets out issues which may be affected and these should be part of a monitoring plan. It could be strengthened by specific targets which can be monitored such as 'no net loss of habitat' and identification of data sources. It does not state explicitly who will administer the plan or what steps will be taken if remedial action should be required.*<br><br>***Implications:*** *Ownership of monitoring needs to be clarified in order to ensure remedial actions are taken in a timely manner. Without monitoring targets beneficial or adverse changes cannot be verified.*<br><br>***Information or changes required:*** *State clearly the ownership of the monitoring plan and provide general targets to be achieved whichever emerges as the preferred option route, in addition to the information currently presented. It would also be good to note sources of data.* | Please refer to Appendix A6 - Water Supply Options |
| EA Evidence report | ***Improvement 5 – Ensure the environment is appropriately considered in its options appraisal***<br>***Issue 5.3: Carsington Water; BHS06***<br><br>***Issue & Evidence:*** *The combined effect of MEL29, BHS06 and LIT01is addressed in SEA page xvi as 0.47% of capacity per day. This was disregarded as not significant but it is clear prolonged daily usage at this level would have a noticeable impact on water levels especially during dry periods where Carsington has limited opportunity to refill during the year when flows in the Derwent increase. WIL05 also mentions using better operational utilisation of Carsington reservoir 'under exploited' capacity and is its effects are not mentioned in this section.*<br><br>*This is linked to WFD in combination issue above.*<br><br>***Implications:*** *It is not clear if the combined impact of these options on Carsington have been adequately assessed in the SEA.*<br><br>***Information or changes required:*** *The SEA should be amended/ updated to reflect these concerns.* | The combined impacts of options relying on Carsington Water will be reviewed to determine the significance of the potential impact on water levels. The results of this assessment will be presented in Section 7.4 of the SEA Environmental Report.<br><br>Please refer to Appendix A6 – Water supply options for more information. |
| EA Evidence report | ***Improvement 5 – Ensure the environment is appropriately considered in its options appraisal***<br>***Issue 5.4: BHS06; Assessment of Diddlebury***<br><br>***Issue & Evidence:*** *The assessment of the Diddlebury scheme on page 53 concluded 'no greater than minor effects'? However the effects on biodiversity and water in the table on page xiii don't seemed to have been considered for this option.*<br><br>***Implications:*** *It is not clear if all the potential impacts on the environment of this option have been adequately assessed in the SEA.*<br><br>***Information or changes required:*** *The SEA should be amended updated to reflect these concerns* | The SEA has considered effects on biodiversity, flora & fauna and on water for the Diddlebury option and the assessment concludes these will be negligible, as set out in our WRMP. The key for the summary Evaluation Matrix will be included to clarify that grey indicates negligible effects. |
| EA Evidence report | ***Improvement 5 – Ensure the environment is appropriately considered in its options appraisal***<br>***Issue 5.5: The assessment of water transfers.***<br><br>***Issue & Evidence:*** *In the SEA on page vii - In this section the transfer of water between catchments is discussed but does not mention impacts such as long depleted reaches or adding more water to another catchment increased baseflow and INNS etc.*<br><br>***Implications:*** *It is unclear if water transfer has been adequately assessed.*<br><br>***Information or changes required:*** *Need to add some specifics around these risks (eg long depleted reaches, INNS) in this section of the SEA* | Please refer to Appendix A6 - Water Supply Options |

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| EA Evidence report | ***Improvement 5 – Ensure the environment is appropriately considered in its options appraisal***<br>***Issue 5.6: WIL05 – site E WTW***<br><br>***Issue & Evidence:*** *In the SEA the assessment of this scheme is confusing with regard to HoFs and water available. There is also no mention of Aqualate Mere RAMSAR & SSSI. SEA, page xvii and repeated in section 7.4.6 states that 'the current available volume that can be abstracted upstream of North Muskham gauging station before the HoF conditions are triggered. Therefore, the proposed abstractions could be accommodated within this limit and will not have any significant impact on the flow regime or the aquatic ecology of the water body." There is no unrestricted water available on the Trent. There is 130 Ml/d available but that is subject to a HoF of 2650 Ml/d at North Muskham. This scheme may also impact Aqualate Mere RAMSAR and SSSI with regard to flow quantity and quality. The scheme involves the diversion of final effluent from Barnhurst from both the Staffs and Shropshire Union canal into the Penk. The canal overflows into Aqualate Mere.*<br><br>***Implications:*** *The environmental impact of the option may not have been fully assessed. This may have impacts for the security of supply and the environment.*<br><br>***Information or changes required:*** *The SEA assessment should be updated or corrected to reflect the water available at the appropriate HoF and consider the environmental impacts of the option on Aqualate Mere.* | Please refer to Appendix A6 - Water Supply Options |
| EA Evidence report | ***Improvement 6: Justify or revise target headroom***<br>***Issue 6.1: Target Headroom Allowance***<br><br>***Issue & Evidence:*** *The company's target headroom allowance as a percentage of final plan total water available for use (WAFU) is quite high compared to other companies. The climate change component of target headroom as a percentage of WAFU (12.5%) is considerably higher than all other companies including those companies with similar resources.*<br><br>***Implications:*** *The company may have taken a risk adverse approach to target headroom which could negatively impact the supply demand balance.*<br><br>***Information or changes required:*** *The company should review its target headroom to inform the final plan or provide further assurance that allowances made, especially for climate change, are justified.* | Please refer to Appendix B2 - Climate Change & Uncertainty |
| EA Evidence report | ***Improvement 6: Justify or revise target headroom***<br>***Issue 6.2: Climate change uncertainty***<br><br>***Issue & Evidence:*** *The same 20 UKCP09 climate change scenarios identified for the 2030's are used to analyse the 2080's time slice. This is not an appropriate use of the data, as by the 2080's the scenarios may not still be representative of the overall sample space.*<br>*It is not clear if medium climate change scenarios were coherent across all WRZs, or selected on a per WRZ basis, for the DMU best central estimate scenario. The statement that the use of individual climate change scenarios in the DMU "removes uncertainty around climate change from target headroom" (dWRMP19, App. A, Sec. A3.6, pg. 46) may not hold.*<br><br>***Implications:*** *The climate change analysis maybe inappropriate which could impact the supply demand balance.*<br><br>***Information or changes required:*** *The final plan should contain additional information on how the climate change scenarios were deemed suitable for use in the 2080's and if not amended accordingly.* | Please refer to Appendix B2 - Climate Change & Uncertainty |

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| EA Representation | ***Recommendation 1 – Be more ambitious with long term leakage reductions across all zones***<br><br>*We welcome Severn Trent Water's proposed 15% reduction of leakage by 2025 at the water company level, but we believe the company is not being ambitious in the long term or at the resource zone level. The company only plan a further 3% reductions in leakage between 2025 and 2045 and only plan to reduce leakage in 3 out of its 15 resources zones. We think the company should explore how it can use innovative approaches to achieve leakage reductions across the plan in line with leading companies and the findings of the recent NIC report on England's Water Infrastructure Needs. We set the challenge for the company to reduce leakage further beyond 2025 and in all resource zones especially given the company's ambitious external metering programme which should have benefits in all resource zones.*<br><br>*We expect the company to report leakage transparently in its final plan. The draft plan has several errors and it is difficult to understand what the final programme is, for example it is unclear how the costs and benefits have been considered in some options whilst in others it is not clear exactly what activities make up that option. Additionally in some resource zones we are very surprised to see no leakage reduction despite a large increase in metering, we would expect to see a drop in these resource zones.* | Please refer to Appendix A2 - Leakage |
| EA Representation | ***Recommendation 2 – Provide assurance that all options in the preferred programme are achievable or provide alternatives***<br><br>*The company has included several options in its preferred programme which we consider may not be fully achievable in terms of volume output. This includes options in the first ten years of its plan. In particular, we have identified options in the evidence report that may cause Water Framework Directive water body status deterioration if fully implemented (Table 1 of the Evidence report Issues 2.1 to 2.5 and issues 2.9 to 2.10). A further two options may not be able to achieve their full Deployable output due to physical constraints. This presents a risk to the environment and the security of supplies if options cannot be delivered.*<br>*We expect the company to work with the Environment Agency to either provide assurance that these options are deliverable or provide alternatives in the final plan.* | The Environment Agency has provided an appendix of commentary associated with this consultation response item that incorporates specific queries associated with individual or groups of options.<br><br>There have been some changes to our WRMP as a result of consultation responses, in particular a change to the preferred programme of options. The Environment Agency was concerned regarding the WFD implications and other constraints to achieving deployable output. We have provided commentary to give greater clarity in support of the plan and the stated deployable output benefits. There are areas where we accept further investigation and study is required.<br><br>We have made significant investment to develop a preferred programme of viable supply side options for inclusion in our WRMP. This process has included activities to improve confidence in the deliverability of supply side options as well as an assessment of engineering viability. We have presented a preferred programme of supply side options that we are confident is achievable; will provide the stated benefits, and; meet the challenge of providing a cost effective and sustainable water supply into the future.<br>Please refer to Appendix A6 - Water Supply Options for more information. |
| EA Representation | ***Recommendation 4 – Demonstrate that forecast metering increases and associated demand savings are deliverable***<br><br>*We welcome the company's proposal to increase its metering of customers. Evidence from other water companies with large-scale metering programmes show a significant reduction in demand. The company should explain how it will achieve 100% metering as this has not yet been achieved by other water companies, even through compulsory metering. As a result the company are at risk of overestimating demand savings which could have an impact later on in the plan. The company should research and revise its forecast or present evidence to support its current strategy of installing but not using meters for billing.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| EA Representation | ***Recommendation 5 – Demonstrate that security of supply will be maintained while the planned supply schemes are implemented***<br><br>*The planned programme of work to meet the deficit through 2020-30 is large, with 10 individual schemes planned in the first five years. The company has not considered the potential impacts of this work on outage or the resilience of its network in the draft plan. For example, the plan does not consider the outage that is likely to be associated with the enhancement and expansion of these assets while they are turned off or run at reduced capacity. Additionally, the*<br>*The Environment Agency's representation on Severn Trent Water's water resources management plan*<br>*plan does not consider the risk of delays in delivery and whether this would affect its supply or resilience.*<br>*We expect the company to provide a full assessment of the outage and impacts on resilience relating to these works. We also expect an assessment of the likely risk of any delays in the work including potential impacts on supply and resilience.* | Please refer to Appendix A6 |

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| EA Representation | ***Recommendation 6 – Ensure the plan is legally compliant by adhering to the WRMP Directions:***<br><br>*Direction 3(b) Describe the annual average risk of all restrictions as a percentage, and how they change through the planning period*<br>*The company has not provided detail of how the annual risk of temporary use restrictions, ordinary drought orders and emergency drought orders change over the planning period.*<br>*The company must provide its estimate of the planned annual risk for (I) temporary water use restrictions; (ii) ordinary drought orders; and (iii) emergency drought orders and describe how this risk changes across its planning period to meet Direction 3(b).* | Please refer to Appendix B5 - Drought Risk |
| EA Representation | ***Recommendation 6 – Ensure the plan is legally compliant by adhering to the WRMP Directions:***<br><br>*Direction 3(c) Describe the assumptions it has made to determine the annual average risk of all restrictions*<br>*The company has not provided the annual average risk for all restrictions. It has therefore not provided the assumptions used to estimate the annual average risk of imposing all levels of restrictions as required by Direction 3(c).*<br>*The company must set out the assumptions used to estimate the planned annual risk for its planning period of (I) temporary water use restrictions; (ii) ordinary drought orders; and (iii) emergency drought orders under Direction 3(b).* | Please refer to Appendix B5 - Drought Risk |
| EA Representation | ***Recommendation 6 – Ensure the plan is legally compliant by adhering to the WRMP Directions:***<br><br>*Direction 3(e)(I) Describe the assumptions made regarding the implications of climate change, including in relation to the impact on each of its supply and demand measures*<br>*The company has not described the impacts of climate change on each of its options in the final planning scenario. This is required by Direction 3(e)(I).*<br>*The company must include an assessment of the impacts of climate change on each of its measures in the final planning scenario to meet Direction 3(e)(I). This should include as assessment of both supply-side and demand-side options.* | Please refer to Appendix B2 - Climate Change & Uncertainty |
| EA Representation | ***Recommendation 6 – Ensure the plan is legally compliant by adhering to the WRMP Directions:***<br><br>*Direction 3 (h) Describe its assessment of the cost-effectiveness of domestic metering types*<br>*The company has not provided an individual assessment of the cost-effectiveness of each of the metering options, including compulsory, selective, change of occupier and optant to allow a comparison of each metering type. This is required by Direction 3(h).*<br>*The Environment Agency's representation on Severn Trent Water's water resources management plan*<br>*The company must provide an assessment of the cost-effectiveness of each type of metering to meet Direction 3(h). This should be presented individually to allow a comparison of each metering type.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |

| Stakeholder | Comment | Our Response |
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| EA Representation | ***Improvement 1 – Provide more clarity on the required sustainability changes and describe how they will affect supply***<br><br>*We are pleased that the company plans to address its unsustainable abstractions as quickly and cost effectively as possible, and we will continue to work with the company on this challenging task. However, the full impact that sustainability reductions will have on the company's supply in the draft plan is not clear. Information on sustainability reductions in the baseline planning tables do not align with information in the plan or appendices. The company has not agreed an alternative approach with the Environment Agency to the Ecological Flow Indicator at appropriate sites. The company has incorrectly assumed that all surface water Hands Off Flows have been investigated and measures implemented (for example, the 90Ml/d condition on Egginton has not). The Water Industry National Environment Programme (WINEP) and AMP6 option appraisal work is also not reflected in the final plan.*<br>*We suggest the company should:*<br>*ensure all information in the commentary, tables and appendices aligns*<br>*finalise and agree its alternative approach to the Ecological Flow Indicator with the environment Agency in line with the EFI position statement*<br>*review all of its sustainability scenarios and ensure that all surface water sources have been appropriately considered*<br>*include the results from AMP6 option appraisal work and WINEP3 (we recognise this was not possible for the draft plan)* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| EA Representation | ***Improvement 2 – Consider options for reducing outage and treatment works losses and operational use***<br><br>*The company has not fully assessed the consequences on outage of the construction work to build new options or the outage resulting from those new options. And, in addition to this it has not considered options to reduce outage or to reduce treatment works losses and operational use.*<br>*We suggest the company should:*<br>*consider whether outage options are appropriate and justify if they are not including them*<br>*update the plan to include the outage associated with the PR19 maintenance programme*<br>*reassess final plan outage to include the risk associated with new supply side schemes*<br>*assess potential options for reducing treatment works losses and operational use and present them in its final plan* | Please refer to Appendix B6 - Outage |
| EA Representation | ***Improvement 3 – Consider the effects of long duration droughts on Sherwood Sandstone sources***<br><br>*Approximately 30% of the company's supplies come from Sherwood Sandstone sources. Detailed modelling work undertaken by the Environment Agency following the 2010 – 2012 drought showed that the Sherwood Sandstone aquifer is vulnerable to some third dry winter scenarios and as a result an extended period of dry weather could result in serious impact on the resilience of these sources. However, the company has only carried out limited assessment of the impact drought and climate change will have on its Sherwood Sandstone sources and as a result it is not clear that the company is resilient to third dry winter scenarios that may occur within its stated levels of service.*<br>*The company should explore the third dry winter scenarios possible within its levels of service and assess the likely effects of these scenarios on its Sherwood Sandstone sources. If there are issues with these sources, the company should plan for alternatives to maintain its stated level of resilience.* | Please refer to Appendix B5 - Drought Risk |
| EA Representation | ***Improvement 4 – Address inconsistencies in the water resource planning tables***<br><br>*There are a number of areas where the company's tables could be improved to aid transparency and understanding, as well as addressing some potential errors. We suggest the company considers our suggested improvements in the evidence report (Table 2 of the Evidence report issues 4.1 to 4.6) to its water resources planning tables. In particular, the company should improve how it is reporting User Supply Pipe Leakage in its Final Plan Table.* | Please refer to Appendix B10 - WRMP Table Correction |

| Stakeholder | Comment | Our Response |
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| EA Representation | ***Improvement 5 – Ensure the environment is appropriately considered in its options appraisal***<br><br>*Option assessment and development is not clearly covered in the Strategic Environmental Assessment (SEA). It is not clear how the selection of reasonable alternatives has incorporated environmental impacts. The monitoring plan is unclear in places, including who carries out some of the actions. Environmental impacts for all options or in combination options have not been assessed. Completing the SEA is a legal requirement, although the company has provided an SEA it should review issues 5.1 to 5.6 in table 2 of the Evidence Report to ensure it has completed its assessment. The SEA should address:*<br>*who is responsible for each of the actions in the monitoring plan*<br>*all environmental impacts of options referred to in the evidence report (Table 2)*<br>*how reasonable alternatives were influenced by the SEA* | Please refer to Appendix A6 - Water Supply Options |
| EA Representation | ***Improvement 6 – Justify or revise target headroom***<br><br>*The climate change component of headroom is more than double that of similar companies by 2030. This means that 12.5% of total water available for use is taken up by this component of headroom. The company should either justify the method they have used and explain why this is acceptable or consider whether this is the correct approach.* | Please refer to Appendix B2 - Climate Change & Uncertainty |
| EA Representation | ***Recommendation 3 – Continue to work with neighbouring companies and regional water resource collaborations to assess development of shared resources and transfers into and through Severn Trent Water's network.***<br><br>*The company is in a prime location to develop or facilitate transfers and shared resources. We expect the company to continue to work closely with neighbouring companies and to continue to actively contribute to the regional water resource (WR) collaborations such as WR North, WR West, WR East and WR South East and also the technical groups such as the Severn and Trent working groups to assess development and timescales for transfers and shared resources.*<br>*We recommend the company continues its work with other water companies, regional water resource collaborations and relevant technical working groups to explore new transfers and shared resources* | Please refer to Appendix A5 - Water Trading |
| EA Representation | *United Utilities includes a large transfer to Thames Water as part of an alternative plan. Thames Water makes reference to this transfer, but does not include it as a preferred option whilst Severn Trent Water state an intention in its plan to continue exploring this option subject to how Thames Water pursue it.* | Please refer to Appendix A5 - Water Trading |
| EA Representation | *The company should also ensure it agrees and presents accurate bulk supply volumes with neighbouring companies. In its draft plan, the company presents inconsistent volumes in its bulk supply agreements with South Staffordshire Water. The company must ensure that inconsistent volumes are corrected or explained in the final plan, and reflected in the overall supply demand balance.*<br>*We recommend the company: ensures that the company's transfers are consistent with other companies' transfers* | Please refer to Appendix A5 - Water Trading |
| EA Representation | *The company should also ensure it agrees and presents accurate bulk supply volumes with neighbouring companies. In its draft plan, the company presents inconsistent volumes in its bulk supply agreements with Yorkshire Water. The company must ensure that inconsistent volumes are corrected or explained in the final plan, and reflected in the overall supply demand balance.*<br>*We recommend the company: ensures that the company's transfers are consistent with other companies' transfers* | Please refer to Appendix A5 - Water Trading |

| Stakeholder | Comment | Our Response |
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| EA Representation | *The company should also ensure it agrees and presents accurate bulk supply volumes with neighbouring companies. In its draft plan, the company presents inconsistent volumes in its bulk supply agreements with Anglian Water. The company must ensure that inconsistent volumes are corrected or explained in the final plan, and reflected in the overall supply demand balance.*<br>*We recommend the company: ensures that the company's transfers are consistent with other companies' transfers* | Please refer to Appendix A5 - Water Trading |
| EA Representation | *We recommend the company: continues to work with United Utilities, Thames Water, Natural Resources Wales and the Environment Agency to consider the feasibility of a potential strategic transfer* | Please refer to Appendix A5 - Water Trading |
| GARD | *1. More detail should be provided of Severn Trent's options for inter-regional transfers so that there is transparency of decisions reached on these options.* | Please refer to Appendix A5 - Water Trading |
| GARD | *2. Severn Trent should keep to their decision not to take a transfer from Vyrnwy for themselves, leaving this option available to meet the needs of South East England.* | Please refer to Appendix A5 - Water Trading |
| GARD | *3. Severn Trent should keep pursuing their option for a new 45 Ml/d source using a 3rd party asset, while it is still available, as an alternative to taking water from Vyrnwy.* | Please refer to Appendix A5 - Water Trading |
| GARD | *4. In negotiating potential transfers with Thames Water, Severn Trent should be aware of Thames Water's use of flawed stochastic data for the lower Severn and consequent underestimation of the deployable output benefits of transfer options.* | Please refer to Appendix A5 - Water Trading |
| GARD | *5. The option of taking a direct supply from Vyrnwy to Oswestry, thereby freeing up water for transfer from the lower Severn, is likely to be a cost effective first phase of support for a Severn-Thames transfer, so it should be actively pursued.* | Please refer to Appendix A5 - Water Trading |
| GARD | *6. Severn Trent should ensure that, in evaluating transfer options, Thames Water do not include excessive costs for Severn Trent's transferred water or for the cost of the Severn to Thames transfer aqueduct, so that a fair comparison is made with the costs of Thames Water's own options.* | Please refer to Appendix A5 - Water Trading |
| Hinckley & Bosworth Borough Council | *One option presented within the draft WRMP is to develop a new supply scheme for the period 2025-45 within Hinckley & Bosworth. The scheme would utilise Thornton Reservoir and connect the reservoir via an 8km raw water main pipeline to Site B Water Treatment Works (WTW) (the actual location and name of Site B is not public information due to security and commercial sensitivities). Thornton Reservoir is allocated as a Natural and Semi-Natural Open Space within the Site Allocations and Development Management Policies DPD (2016). It is recognised in this manner in view of its contribution to and role in wildlife conservation and biodiversity. A Water Framework Directive Compliance Assessment finds that the proposed Thornton reservoir intervention is compliant in that it does not involve additional abstractions from Water Framework Directive water bodies and therefore presents a negligible risk. A Habitats Regulations Assessment (HRA) finds that there would be no 'likely significant effects' in accordance with the requirements of HRA and that there is no requirement for a stage 2 assessment to be carried out.*<br><br>*However, the Environmental Report for Strategic Environmental Assessment (SEA) which accompanies the draft WRMP identifies that as a result of the option, minor adverse effects will impact upon 5 objectives – including 'to protect and enhance health and well-being' and 'to protect and enhance the quality of and improve access to designated and undesignated landscapes, townscapes and the countryside'. Furthermore, moderate adverse effects are identified as impacting upon 3 more objectives as follows; 'to protect, conserve and enhance natural capital and the ecosystem services from natural capital that contribute to the economy', ' to reduce greenhouse gas emissions' and 'to conserve and enhance the historic environment, heritage assets and their settings, and protect archeologically important sites'. Major adverse effects are identified as impacting upon 1 objective; 'to conserve and enhance biodiversity, including designated sites of nature conservation interest and protected habitats and species (with particular regard to avoiding the effects of over-abstraction on sensitive sites, habitats and species)'. Specifically, the SEA finds that the construction of the 8km pipeline from Thornton Reservoir to the WTW would have major adverse effects on some areas of ancient woodland (Lady Hay Wood, Sheet Hedges Wood) and SSSIs (Groby Pool Woods, Sheet Hedges Wood), as it will directly intersect these sites. Of particular concern to Hinckley & Bosworth is potential impacts upon Groby Pool Woods SSSI, which is located just inside the borough north of Groby and, as with Thornton Reservoir, is allocated as Natural and Semi-Natural Open Space within the Local Plan for the borough.*<br><br>*Hinckley & Bosworth have significant concerns relating to the potential negative impacts of this option on the immediate assets and wider area and would need to be satisfied that measures developed as part of the latter detailed design stages would satisfactorily mitigate the moderate and major adverse effects identified as part of* | Please refer to Appendix A6 - Water Supply Options |

| Stakeholder | Comment | Our Response |
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| | *the assessment. This is particularly important in relation to pipeline construction and potential impact on relevant assets, including the Groby Pool Woods SSSI. Hinckley & Bosworth would seek to work proactively with Severn Trent as part of the latter stages of design to help ensure this and would seek consultation with Severn Trent to enable this.* | |
| Hinckley & Bosworth Borough Council | *Notwithstanding the above, it is critical that Severn Trent undertake close dialogue and consultation with Local Authorities moving forward, including by way of providing input to Local and Strategic Plan production across Leicestershire. Specifically, Hinckley & Bosworth are undertaking a Local Plan Review for the period 2016-2036 which as part of its remit will identify locations for growth. These locations will have significant implications on utilities, including the supply of water. Severn Trent should therefore make itself aware of this plan as it develops, as well as those of neighbouring authorities, as it continues to develop the WRMP. In relation to this, Severn Trent should also be aware of the emerging Strategic Growth Plan for Leicester and Leicestershire being developed by Leicester City, Leicestershire County and the local authorities of Leicestershire, which looks to determine broad locations for strategic scale growth up to 2050. Clearly both documents will have significant implications on how Severn Trent will need to plan for future water supply and distribution.* | Please refer to Appendix B4 - Demand Forecast |
| Leicestershire County Council Scrutiny Commission | *The Scrutiny Commission welcomes the demand management measures outlined on page 7 of the draft Water Resources Management Plan as part of the long term water resources strategy. We support and encourage Severn Trent Water to undertake water efficiency activities and education. We are keen to see the Home Water Efficiency Checks rolled out in Leicestershire, noting that they have already been successfully implemented in Rugby and Coventry. We reiterate our offer to publicise this programme in Leicestershire Matters, the County Council newsletter which is sent to all households in the county.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| Leicestershire County Council Scrutiny Commission | *We are pleased to note that Severn Trent Water intends to work with social housing providers to support its more financial vulnerable customers to save water and thereby make their water bills more affordable. We would recommend that Severn Trent Water engages with the Department for Work and Pensions, which is responsible for the provision of the Universal Credit benefits programme, as well as with District Councils, to ensure that this support is targeted appropriately.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| Leicestershire County Council Scrutiny Commission | *In June of last year we were advised by Severn Trent that sustainable and cost effective technology for households to harvest rainwater and re-use grey water was not yet available. We urge Severn Trent to support and monitor developments in this area so that they can be introduced as soon as is reasonably practicable.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| Leicestershire County Council Scrutiny Commission | *We welcome the step increase in measures to reduce leakage and the acknowledgement that Severn Trent Water needs to be more ambitious in this area. We recognise the significant impact that leakage have can have both on the supply of water and also on households and infrastructure in affected areas. We believe that measures to reduce leakage must involve addressing blockages in the sewage system as this causes a high proportion of sewer flooding incidents.* | Please refer to Appendix A2 - Leakage |
| Leicestershire County Council Scrutiny Commission | *We are pleased that Severn Trent Water recognises that housing numbers will continue to grow and we seek assurance from Severn Trent Water that it is aware of, and engaging with, the draft Leicester and Leicestershire Strategic Growth Plan, which sets out the projected increasing in housing up to 2050 and identifies those areas in the County where growth will be focused.* | Please refer to Appendix B4 - Demand Forecast |
| Leicestershire County Council Scrutiny Commission | *We note that stakeholder engagement has already identified that Severn Trent Water should explore opportunities for more partnership working and we fully support this finding. We would particularly recommend that Severn Trent Water works closely with Local Planning Authorities to understand where housing growth is likely to take place as this enable Severn Trent Water to plan accurately for the future supply of water.* | Please refer to Appendix B4 - Demand Forecast |
| Leicestershire County Council Scrutiny Commission | *The Scrutiny Commission is pleased to have the opportunity to respond to this consultation and would welcome further opportunities to work with Severn Trent Water to ensure that the needs of Leicestershire residents are taken into account in the long term planning for water resources.* | Please refer to Appendix A1 - Customers & Engagement |

| Stakeholder | Comment | Our Response |
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| NE | ***1: Habitats Regulations Assessment***<br><br>*It is welcomed that the HRA screening process of all options, identified several where no Likely Significant Effect could not be concluded, when considered alone, and that none of these options has been carried forward.*<br>*We do have concerns about the consideration of the in-combination tests however as it does not seem to be comprehensive particularly with regard to relevant development plans and due to timing issues other Water Resource Management Plans* | Please refer to Appendix A6 - water supply options |
| NE | ***1: Habitats Regulations Assessment***<br><br>*We note the use of the available evidence including the SAC Site Improvement Plan although it should be clear that subsequent to some of the Environment Agency Review of Consents (RoC)the conservation objectives for some site, especially rivers may have changed. The up to date targets are available from the Site improvement plans and should be checked against those used in the RoC* | Please refer to Appendix A6 - Water Supply Options |
| NE | ***1: Habitats Regulations Assessment***<br><br>*The approach of "down the line assessment" for preferred options with a likely significant effect can potentially be acceptable in a dWRMP context only when all the following criteria are satisfied:*<br>*Where, due to scientific uncertainty of a novel or complex process and need for more research, information cannot reasonably be gathered at this (dWRMP19) plan stage;*<br>*Options are proposed for delivery late on in the plan (post 2030 for dWRMP19) ensuring that there is time to allow for assessment and delivery of alternatives if necessary;*<br>*Alternatives are included in the plan where the avoidance of an adverse effect on integrity of European sites is certain, and these are available, feasible and deliverable;*<br>*A commitment is made to pursue alternatives if an adverse effect on integrity of a European site cannot be avoided for the preferred options set.* | Please refer to Appendix A6 - Water Supply Options |
| NE | ***2.1 Sites of Special Scientific Interest (SSSIs)***<br><br>*Several of the options presented in the plan are considered to potentially impact on SSSI due to the route of pipelines in particular. The plan needs to be more specific in how these impacts will be removed and should at least give a clear indication of the number and area of SSSI that may be effected.* | Please refer to Appendix A6 - Water Supply Options |
| NE | ***2.1 Sites of Special Scientific Interest (SSSIs)***<br><br>*In addition option WTW05, as described could have significant impact not just on the geological SSSI it is located in but also on two other Biological sites adjacent to the site. While this is given as an indicative site it is important to note that several of the hard rock quarries within the Soar catchment are notified as geological SSSI.*<br>*Significant work will have to be done to ensure this site is developed while not causing impact on the features of interest of these sites including, for the geological sites permanently reducing accessibility to the features of interest.*<br>*It is recognised that this solution is not required for this WRMP (although feasibility work will be done in this 5 year period) but it is the largest single source identified in the plan for the next 10 years and so reflects a risk to the plan* | Please refer to Appendix A6 - Water Supply Options |
| NE | ***2.2 Impacts on landscape***<br><br>*Although landscape impacts are considered in the plan there does not seem to be an acceptance that activities that could impact on woodland particularly ancient woodland, may have landscape impacts.* | Please refer to Appendix A6 - Water Supply Options |
| NE | ***2.2 Impacts on landscape***<br><br>*It is also unclear if the DVA improvements and the* [Site R] *works capacity changes ( NOT 01 and BAM04) will include construction work with in the National Park.* | Please refer to Appendix A6 - Water Supply Options |

| Stakeholder | Comment | Our Response |
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| NE | ***2.2 Impacts on landscape***<br><br>*The proposals for several reservoirs to have increased storage capacity have not been considered either potentially detrimental to biodiversity and or landscape. It should be noted that valuable habitats can develop adjacent to reservoirs, increases in capacity are likely to squeeze these valuable biodiversity assets between the reservoir and the boundary land holding. Similarly the increased capacity is likely to result in large draw-down zones which many have some ecological value but can also be seen as a temporary landscape impact.* | Please refer to Appendix A6 - Water Supply Options |
| NE | ***2.2 Impacts on landscape***<br><br>*There are many options in Severn Trent's dWRMP and in other companies' plans which have the potential to impact protected landscapes should they go forward. Cumulative landscape impacts should be assessed before the final plan is submitted to ensure mitigation is possible, and mitigation should not be left to a piecemeal approach at the project stage. Natural England recommends that Severn Trent works with neighbouring companies and with Protected Landscape Officers to produce a cohesive Protected Landscape Mitigation Strategy for each AONB and the Peak District National Park which could be affected by multiple schemes in the lifetime of the WRMP. These should be completed before implementation of the plans, and should address any cumulative landscape impacts which could occur.* | Please refer to Appendix A6 - Water Supply Options |
| NE | ***2.4 Biodiversity***<br><br>*While the SEA has identified the potential impact on nationally designated sites (including ancient woodlands) it does not cover sites of local importance. This means that the overall impact on Biodiversity is not clear.* | Please refer to Appendix A6 - Water Supply Options |
| NE | ***2.4 Biodiversity***<br><br>*It is disappointing to note that not a single option on the supply side has been identified as having a positive impact on biodiversity. It may not be possible to specify exact improvements that could be made for each scheme at this stage, it should however be possible to generate a series of principles around how work could improve biodiversity. This type of work has been done in the SEA to suggest avoidance and mitigation for the schemes which appear to have the potential to cause negative impacts on biodiversity.* | Please refer to Appendix A6 - Water Supply Options |
| NE | ***2.4 Biodiversity***<br><br>*Thought should be given to how the plan as a whole should deliver a Net Gain of biodiversity and this type of metric should be used in monitoring the impacts of the plan during implementation. This is in line with the current National Planning Policy Framework and DEFRA's 25 year plan.* | Please refer to Appendix A6 - Water Supply Options |
| NE | ***2.4 Biodiversity***<br><br>*Many of the water storage assets the company owns (mainly reservoirs) have significant existing biodiversity interest (including some SSSI). In deciding to increase the storage capacity there does not appear to have been a consideration of how this will affect the biodiversity of the water body itself (AMP8 and 9 Schemes). Increases in drawdown and increased discharge rates can have significant impacts on water quality (not on drinking water quality) and nutrient cycling leading to Page 6 of 11 impacts on the reservoirs ecology itself. This does not appear to have been considered in the SEA.* | We recognise the importance of preserving the fauna and flora which depend on our reservoirs. Some of the assessments we have undertaken in connection to these storage options have already identified potential adverse impacts on ecology as well as loss of habitat. However, we will seek to expand the existing WFD assessments (Appendices A and B of the main WFD report) and SEA assessment (main environmental report and SEA matrices) to include further consideration of habitat loss, changes in water quality within the reservoirs and impacts on ecology, during the construction as well as operational phase. Where adverse impacts are identified, we endeavour to undertake further investigations and devise mitigation measures in consultation with Natural England, local Wildlife Trusts and other relevant stakeholders. |
| NE | ***2.5 Protected Species***<br><br>*Natural England Standing Advice for Protected Species is available on our website to help local planning authorities and others including water companies better understand the impact of development on protected or BAP species should they be identified as an issue at particular developments or plans. This also sets out when, following receipt of survey information, the authority (or the undertaker in regards of the exercise of permitted development rights) should undertake further consultation with Natural England.* | Thank you for your comment. |
| NE | ***2.7 Adaptation to Climate Change***<br><br>*The company appears to have used appropriate and comprehensive climate change models to assess likely impacts on water resource availability and vulnerability* | The support of the Natural England to our approach to assessing the potential impact of climate changed on our water supply system is acknowledged. Further information regarding consultation responses associated with climate change is available in Appendix B2 - Climate Change & Uncertainty. |

| Stakeholder | Comment | Our Response |
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| NE | ***4.1.1 Demand management***<br><br>*Section 82 of the Water Act 2003 places an environmental duty on the water undertakers 'to further water conservation', in addition to duties in the Water Industry Act (section 3(2)(a) 1991) to promote efficient use of water by its customers. The plan demonstrates evidence that this duty has been taken into account through demand management within the plan rather than increasing supply.*<br>*We strongly support the three demand management options in the dWRMP, leakage reduction, increased metering, use of extensive water efficiency measures including promotion and awareness raising measures with the consumer.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| NE | ***4.1.1 Demand management***<br><br>*We would also urge the company to develop ideas on how SUDs (see below- including retro fitting) could be used in future Water Resource Management Plans to reduce demand along with other measures such as 'Grey water' re-use schemes.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| NE | ***4.1.2 Shared Plans for Places***<br><br>*Water companies should ensure that the WRMP is used to influence options in the relevant local plans including those on the quantum of growth and its location. Paragraph 109 of the National Planning Policy Framework (which local plans must be consistent with) requires that local plans should contribute to and enhance the natural environment.*<br><br>*The Defra 25 Year Environment Plans sets strong new aspirations for sustainable planning:*<br>*"**New development will happen in the right places**, delivering maximum economic benefit while taking into account the need to avoid environmental damage. We will protect ancient woodlands and grasslands, high flood risk areas and our best agricultural land.*<br><br>***High environmental standards for all new builds.** New homes will be built in a way that reduces demands for water, energy and material resources, improves flood resilience, minimises overheating and encourages walking and cycling. Resilient buildings and infrastructure will more readily adapt to a changing climate."* | Please refer to Appendix B4 - Demand Forecast |
| NE | ***4.1.3 Sustainable Drainage Systems (SUDS)***<br><br>*Companies are expected to take a leadership role in partnership schemes for sustainable flood risk management. WISER (page 45) sets out expectations on companies to have "a clear and systematic approach to assessing partnership opportunities" and to demonstrate how they are "taking a strategic approach to contributing to flood alleviation schemes in order to maximise the benefits to customers, the economy and the environment". WISER (page 44) encourages companies to work with others to actively identify and build in sustainable drainage options.*<br><br>*For more information please see the Environment Agency and Ofwat's drainage strategy . Consider the contribution that Green Infrastructure, a network of functionally designed green spaces, can make as a soft engineering solution to Sustainable Drainage Systems (SUDS) by absorbing, storing and retaining water during extreme rainfall events causing surface water flooding.*<br><br>*With consideration to planning at the water resource zones scale, under the Localism Act 2011, local authorities are required to work with neighbouring authorities and other prescribed bodies in preparing their development plan documents.*<br><br>*There will need for a continued and iterative process of engagement between both local authorities and water companies to ensure that plans are consistent and mutually supportive.* | In developing our Plan we have actively consulted with Local Authorities to gain an understanding of the projected future growth in our region. We have also followed the regulatory guidance that requires use of Local Authority growth forecasts and projections when planning for future demand.<br>Our liaison with Local Authorities is already an important and ongoing part of our 'Growth Liaison' approach and influences our water and waste infrastructure planning. The liaison ensures we have up to date insight on planned growth in the region allowing us to plan appropriate asset investment to ensure we have water and waste capacity to meet all growth needs.<br>We recognise the function of our water supply and wastewater collection systems within the context of integrated water management and continue to seek opportunities to engage and work further with external stakeholders where appropriate. |
| NE | ***4.2.2 Enhancing Resilience***<br><br>*Ofwat also stresses the importance of improving environmental resilience in its methodology guidance to companies for PR195 which states companies should take account of Ofwat's seven principles for resilience planning, including a naturally resilient sector reflecting the importance of ecosystems and biodiversity.*<br>*The Water Resource Management Plan in focusing on impacts alone, rather than opportunities, could potentially miss opportunities to enhance natural resilience as well as water resource resilience. The approach of developing a more inclusive approach to individual schemes is required for the plan to deliver the maximum societal benefit* | Please refer to Appendix B1 - Biodiversity & Catchments |

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| NE | ***4.2.2 Enhancing Resilience - By Catchment schemes***<br><br>*The company has made a commitment to carry out river restoration activity on rivers with unsustainable abstractions until these can be removed . The company has not however included a list of sites to show the level of ambition nor the extent of the challenge. This is an example of how while the companies approach is the right one it lacks an understanding of how the company will work at the catchment level with partners. A clear statement about partnership working with an indication of the scale of the work required would allow a better understanding of the company's overall impact on the environment. This would also allow partners to work with the company to realise additional benefits* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| NE | ***4.2.2 Enhancing Resilience - By Catchment schemes***<br><br>*Natural England encourages the water company to consider further catchment schemes which may contribute not only to improving water quality at its sources by reducing diffuse pollution but could also improve the resilience of surface and groundwater sources by storing and retaining water and improving groundwater infiltration rates. Such schemes could include the creation and restoration of wetland habitats, appropriate woodland planting and sustainable drainage systems within a wider catchment. Such schemes can have wider benefits for biodiversity and society as a whole, including through flood risk management and provision of green infrastructure.* | Please refer to Appendix B1 - Biodiversity and Catchments & A4 - Water Industry National Environment Programme (WINEP) for more information. |
| NE | ***4.2.2 Enhancing Resilience - By Habitat Creation***<br><br>*Consider the contribution that the creation and restoration of wetland habitats, appropriate woodland planting and the rewetting of upland peatlands within a wider catchment would make on reducing diffuse pollution, thereby contributing to water purification and also on storing and retaining water, reducing peak floods further downstream in the catchment.*<br><br>*Local Nature Partnerships (LNP) and Biodiversity Action Plan (BAP) Partnerships will be able to give advice on which Priority Habitat creation and restoration would be appropriate in which location. These can also be used to help the company understand the impact the plans delivery is having on biodiversity in addition to the measures that the company develop in their own plan.*<br><br>*The recognition of the company's forthcoming Biodiversity Action plan as a mechanism to assess performance of the Water resource Management Plan is welcomed, although it is difficult to know how that will be measured as the plan is yet to be produced.*<br><br>*It should be noted that neither the plan, nor the principles behind it, have been shared with stakeholders making it difficult to understand if this is a mechanism that can be used to assess the WRMP performance.* | Please refer to Appendix B1 - Biodiversity and Catchments & A4 - Water Industry National Environment Programme (WINEP) for more information. |
| NE | ***4.4 Relationship to Regional Water Resource Plans***<br><br>*Severn Trent Water occupies a strategic position in England between the drier South East and the wetter North and West, as such it has an important role to play in all of the regional water resource Plans (eg.Water resources South East, Water Resources East).*<br><br>*Currently there appears to be water resources 'available' with the Trent catchment but this should not prevent the company working with other water users within the company area to develop solutions that have multiple benefits, thereby reducing the need for more water to be taken from the environment. The company should be looking to minimise its water take from the environment rather than working towards taking the maximum amount available.*<br><br>*The plan could be improved through discussing water requirements with other sectors and looking to solutions that maximise the 'use ' of water before it goes into supply.* | Please refer to Appendix A5 - Water Trading |
| NFU (West & East midlands) | *While water companies have an absolute duty to supply domestic customers with water, we recognise that this absolute duty does not extend to commercial customers. However we would like to see Severn Trent Water outline the steps that they are taking to safeguard levels of service in water supply to rural businesses. Water supply will be critical for securing growth in the rural economy and we would like to see a focus on rural resilience in Severn Trents long term plans, particularly where they are working with the farming community on wider objectives.* | Please refer to Appendix B8 - Working With Retailers |

| Stakeholder | Comment | Our Response |
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| NFU (West & East midlands) | *This is a particularly important point for livestock businesses who can be at the end of long supply pipes and where low water pressure has sometimes been an issue. When water pipe connections are broken, livestock farms will require quick action from water companies – livestock die quickly of thirst. We were surprised that this had not been considered as an issue at a recent consultation event and fed back accordingly.* | Please refer to Appendix B8 - Working With Retailers |
| NFU (West & East midlands) | *Our thriving soft fruit and vegetable sectors would also be quickly affected by reduced water availability in summer months. Soft fruit crops in particular would die in a matter of hours without access to water. And therefore any proposals to alter river flow or that would impact upon summer abstractors would have a direct impact on these businesses.* | Please refer to Appendix B8 - Working With Retailers |
| NFU (West & East midlands) | *'Temporary use bans' were a feature during the 2010-12 drought and may have had an impact on the amenity horticulture sector (such as pot plant and turf growers). It would be helpful for Severn Trent to outline the steps taken to address the service levels for their customers in the amenity horticulture sector.* | Please refer to Appendix B8 - Working With Retailers |
| NFU (West & East midlands) | *The recent opening of the retail market for business customers has made the situation more complex for agricultural and rural businesses. With Severn Trent Water now operating as a wholesaler and several water retailers operating in the market there is a risk that farming customers will face additional barrier when trying to communicate about supply and water resource issues. The recent supply outages during the severe weather of Spring 2018 were concerning for our industry as it demonstrated that the retailer and the wholesaler were not joined up and that the retailers did not appreciate the importance of continued supply for animal welfare reasons and did not appear to have contingencies in place. We are very concerned about this situation and are working hard to build new relationships with the new retailers.*<br><br>*We strongly believe that Severn Trent should monitor this aspect, particularly where the farmers they are seeking to influence via catchment management initiatives are now (often without any choice) customers of a third party organisation.* | Please refer to Appendix B8 - Working With Retailers |
| NFU (West & East midlands) | *We continue to believe that there could be significant opportunities to develop water storage features by working with farmers. We would like to see Severn Trent outline any steps that they are taking to work with farmers to identify opportunities for the construction of multi-use storage reservoirs or on rainwater harvesting projects. There may be opportunities to work together on these projects, particularly in locations where summer supplies and availability may be an issue.* | Please refer to Appendix A5 - Water Trading |
| NFU (West & East midlands) | *In our view it should be of the highest priority for Severn Trent Water to meet its responsibilities under Water Framework Directive. We would like to see continued activity on protecting the water environment. Our members are very aware of the impacts of the water industries activities on the water environment. Farmers are continually asked to improve and change practices in order to improve their environmental performance and reduce water impacts. STW have recently targeted investment at significant sewerage treatment works and infrastructure and will be delivering reductions in nutrient and sediments in watercourses. However smaller rural systems must not be forgotten and we must all continue to work together at the catchment level to deliver continual improvements together. It is also important that these joint improvements are communicated to local communities.* | Our AMP6 programme does comprise a mix of large urban sewage works improvements and targeted interventions at smaller rural sites. The 154 sewage treatment works that we will upgrade in AMP7 will similarly be a mix of urban and rural sites. We model our nutrient reduction requirements at a catchment level and have adopted a systematic source to estuary approach to WFD delivery. This requires a mix of urban and rural improvements. We'd be happy to share information on our AMP7 WFD programme with the NFU - we also understand that Defra will be publishing our National Environment Programme obligations in the near future. |
| NFU (West & East midlands) | *The paper outlines a number of proposals which aim to ensure that water abstractions do not pose a risk of environmental deterioration. It also outlines potential measures for mitigating the effects of abstraction. These include flow support, river restoration and catchment and partnership solutions.*<br>*Many of these measures would directly affect farming businesses either because they abstract surface water in the summer months, or because they farm in the catchment or own the main river corridors. There must be full consultation about any such initiatives with farmers who are likely to be affected but also with the wider farming community and farming organisations. This must be at an early stage and the local knowledge of the landowners must be fully taken into account. Steps must be taken to ensure that any such initiative is deliverable alongside the main farming business. There are likely to be opportunities for projects around the region but in order to maximise potential farmers must be engaged at an early stage.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| NFU (West & East midlands) | *Catchment management initiatives such as the STEPS scheme have been established under AMP6. The offer has been taken up widely and has proved popular with farmers. However more need to be done to communicate the outcomes of these measures and therefore the benefits of involvement. Furthermore communication with farming networks needs to be strengthened as this has reduced over time. The issues outlined above regarding supply outages reinforce the need for good communication links.* | Please refer to Appendix B1 - Biodiversity & Catchments |

| Stakeholder | Comment | Our Response |
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| NFU (West & East midlands) | *Farmers as producers of clean water is an innovative project which we welcome. It has been running for a number of years and it would now be beneficial for the wider farming community to hear about the techniques employed and the results in order to share best practice and drive wider confidence in the measures and encourage similar experimentation with new products and practices elsewhere.* | Please refer to Appendix B1 - Biodiversity & Catchments |
| NFU (West & East midlands) | *We are always willing to work with Severn Trent Water in order to develop catchment approaches and support farmers in their efforts to improve the water environment. However these initiatives must be mindful that farmers run businesses and are under increasing pressures from a range of sources to deliver a variety of environmental objectives and this must be considered when planning catchment activities. We must also work together and with other organisations engaged at the catchment scale to reduce duplication of effort and improve the delivery on the ground. This will result in business benefits and cost savings for farm businesses and for Severn Trent Water.* | Please refer to Appendix B1 - Biodiversity and Catchments & A4 - Water Industry National Environment Programme (WINEP) for more information. |
| NFU (East Midlands) | *There will be a big supply deficit in Nottinghamshire in the future. One part of the series of measures to address this is three pipelines from Derbyshire to different parts of Nottinghamshire. Water pipelines cause problems for farmers. Because water companies have the strongest compulsory powers of all the utilities the compensation they pay to farmers is the least. Also, their large pipelines require in-field infrastructure every 100 metres or so, which causes great difficulties for farmers trying to farm around them. Severn Trent needs to consult farmers properly about their intentions. Other water companies have said that the infrastructure can go in H8s and have been unable to follow through on those promises, which has led to farmers withdrawing their cooperation with the construction programme.* | Please refer to Appendix A6 - Water Supply Options |
| NFU (East Midlands) | *Another measure announced in the consultation is to use more Birmingham treated effluent and Trent water and export it to Thames region. Will this or other measures impact on the Trent Witham Ancholme (TWA) scheme whereby water is taken from the Trent further downstream and exported to the River Witham in Lincolnshire? Growers in south Lincolnshire depend on this supply of water to produce high quality vegetables, saving imports and carbon and a mainstay of the local and regional economy. We would not want to see Severn Trent taking water from the Trent to the detriment of the TWA scheme.* | Please refer to Appendix A5 - Water Trading |
| NFU (East Midlands) | *The following points may be more relevant for the drought plan so I would be grateful if they could be forwarded, but it is difficult to keep pace with the various consultations. Water Plus is owned by Severn Trent and now administrates the water bills of farmers in the Severn Trent area. Water Plus is getting a lot of farmers' bills wrong and is difficult to deal with. Severn Trent do not want to know and say the issues are not to do with them and we are having to involve the regulator. Defra needs to know about the problems being experienced by the new water billing process and ensure that the billing companies, like Water Plus, are properly staffed and resourced to do the job. Livestock units and plant nurseries are disproportionately affected by drought. Farm animals can die after one day without water. We managed to get this issue across to Severn Trent and its call centre but we doubt whether Water Plus understands this. We would not want to see droughts or supply outages adversely impact on farm animal welfare in the future.* | Please refer to Appendix B8 - Working With Retailers |
| Nottinghamshire Wildlife Trust | ***Leakage and consumption targets***<br><br>*To meet future demand for water, Severn Trent proposes to address leakage and demand as well as securing new supply from outside of the catchment.*<br>*Where targets are proposed for reducing both leakage and per capita consumption, we note that Severn Trent have placed themselves 8th and 10th respectively when compared to 17 other water companies nationally (for the 25 year period). Whilst we welcome that they have set more ambitious targets than some companies, we would urge them to reconsider whether they could make further improvements to target figures and set the best possible example. This aligns to Blueprint for Water's outcomes and priorities relating to using water wisely and pricing water fairly.* | Please refer to Appendix A2 - Leakage |

| Stakeholder | Comment | Our Response |
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| Nottinghamshire Wildlife Trust | ***Leakage and consumption targets***<br><br>*To meet future demand for water, Severn Trent proposes to address leakage and demand as well as securing new supply from outside of the catchment.*<br>*Where targets are proposed for reducing both leakage and per capita consumption, we note that Severn Trent have placed themselves 8th and 10th respectively when compared to 17 other water companies nationally (for the 25 year period). Whilst we welcome that they have set more ambitious targets than some companies, we would urge them to reconsider whether they could make further improvements to target figures and set the best possible example. This aligns to Blueprint for Water's outcomes and priorities relating to using water wisely and pricing water fairly.* | Please refer to Appendix A2 - Leakage |
| Nottinghamshire Wildlife Trust | ***Restoring sustainable abstraction***<br><br>*Many of the county's watercourses are subject to low flow which has a negative impact on the environment. Severn Trent's plans for continuing the Restoring Sustainable Abstraction programme are therefore welcomed. Reduction in abstraction coupled with new supply from outside of Nottinghamshire could have a significant environmental benefit if carefully planned.* | We appreciate the support for our overall approach to addressing our restoring sustainable abstraction programme from Nottinghamshire Wildlife Trust. |
| Nottinghamshire Wildlife Trust | ***Restoring sustainable abstraction***<br><br>*We note that a new supply scheme is proposed for Nottinghamshire (the Heathy Lea to North Nottinghamshire transfer solution) for AMP7. We would expect any such project to be accompanied by a full Environmental Impact Assessment to ensure that construction and operation of a new pipeline would not have a negative impact – moreover, we urge Severn Trent to take the opportunity to seek a net gain in biodiversity where possible through this project and we would be pleased to work with STW to identify suitable areas for securing meaningful biodiversity gain, given our local knowledge and expertise.* | Please refer to Appendix A6 - Water Supply Options |
| Nottinghamshire Wildlife Trust | ***Restoring sustainable abstraction***<br><br>*We welcome that a commitment to addressing abstraction reflects Blueprint for Water's outcomes and priorities relating to keeping our rivers flowing and our wetlands wet.* | We appreciate the support for our overall approach to addressing our restoring sustainable abstraction programme from Nottinghamshire Wildlife Trust. |
| Nottinghamshire Wildlife Trust | ***Restoring sustainable abstraction***<br><br>*On P.11, we note that Severn Trent clearly state that they "need to be satisfied that our abstractions and operations do not cause environmental deterioration at some point in the future", a commitment that is strongly supported by Nottinghamshire Wildlife Trust.* | We appreciate the support for our overall approach to addressing our restoring sustainable abstraction programme from Nottinghamshire Wildlife Trust. |
| Nottinghamshire Wildlife Trust | ***Environmental Measures***<br><br>*The dWRMP makes a number of references to using environmental protection measures as mitigation for the impact of ongoing operations. In accordance with the mitigation hierarchy, Nottinghamshire Wildlife Trust would like to point out that avoidance of impact in the first instance should be prioritised over mitigation and finally compensation. However, we understand that in some cases these measures are considered short term solutions whilst long term solutions such as new sources of supply are in the process of delivery.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| Nottinghamshire Wildlife Trust | ***Environmental Measures***<br><br>*We welcome that Severn Trent proposes to engage with local stakeholders and landowners to assist in the implementation of environmental schemes. Clearly there are a number of catchment partnerships already in operation, such as the River Idle Catchment Partnership (working under CaBA and hosted by Nottinghamshire Wildlife Trust) so 'developing catchment partnerships' (P.33, para 2) is unlikely to be necessary. However, we are fully supportive of continuing to develop and enhance our work with Severn Trent which will benefit the catchment. One important site in the Idle Catchment which we would like to see prioritised for work within AMP7 is Unit 1 of the Idle Washlands SSSI which contains a treatment works that was buried in the 1970s and which should be addressed at the earliest opportunity in order to help bring the SSSI into favourable condition and to improve local water quality.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |

| Stakeholder | Comment | Our Response |
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| Nottinghamshire Wildlife Trust | ***Environmental Measures***<br><br>*Both low flow support measures and catchment and river restoration improvements are proposed as mitigating local environmental measures. Across many of Nottinghamshire's catchments, a number of projects have already been delivered which use river restoration techniques to improve habitats and ecological resilience to low flows. We strongly support the commitment to scaling up the AMP6 approach and hope that it will be well funded and that Nottinghamshire Wildlife Trust will be able to input into the planning and delivery process for AMP7 and beyond.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| Nottinghamshire Wildlife Trust | ***Environmental Measures***<br><br>*Where low flow support measures are proposed, we recommend that Severn Trent focus on waterbodies where low flow has already been identified as an issue – for exAMPle within the Idle Catchment on Bevercotes Beck, the River Maun and Rainworth Water. As Catchment Hosts we have promoted and supported the preparation of WFD and Biodiversity Scoping Documents for the Bevercotes Beck and Rainworth Water, which may help with identifying multiple benefits from any work that STW might wish to undertake on these watercourses.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| Nottinghamshire Wildlife Trust | ***Environmental Measures***<br><br>*The dWRMP makes specific reference to environmental improvement measures including realignment and changes to make the shape more natural, instream measures to improve the diversity of habitat types, riparian management such as fencing and buffer strips to reduce nutrients and sediments entering rivers, fish passes and removal of instream barriers (P.33). Nottinghamshire Wildlife Trust are extremely supportive of these measures and would like to see them all utilised within the catchment where relevant. Through our delivery of WFD projects over recent years and role as Idle Catchment Host, we have developed expertise in delivery of such projects and have local knowledge that may be helpful, and would welcome the opportunity to work with STW on these matters going forward.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| Nottinghamshire Wildlife Trust | ***Environmental Measures***<br><br>*Severn Trent have also indicated a commitment to exploring the use of Ofwat's Abstraction Incentive Mechanism (AIM) as a way of helping prevent future deterioration. We are supportive of this approach as it aligns with Blueprint for Water's outcomes and priorities relating to keeping our rivers flowing and our wetlands wet1.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| Nottinghamshire Wildlife Trust | ***Catchment Management***<br><br>*P.10 of the dWRMP states that "In recent years we have implemented an ambitious catchment management programme to protect our sources from pollution. Catchment management plays a critical role in supporting our supply/demand plan by helping ensure reliable and sustainable output from our existing sources". Nottinghamshire Wildlife Trust strongly supports this approach to catchment management and has further comments on this below.* | The support of the Nottinghamshire Wildlife Trust to our approach to catchment management is acknowledged. Further information regarding consultation responses associated with catchment management is available in Appendix B1 - Biodiversity & Catchments. |
| Nottinghamshire Wildlife Trust | ***Catchment Management***<br><br>*Blueprint for Water's outcomes concerning protecting and restoring catchments1 call for companies to significantly extend investment in catchment management, showing leadership in the Catchment Based Approach, and a commitment to working with partners.*<br><br>*Nottinghamshire Wildlife Trust has played a key role in Severn Trent's catchment management approach over the last 2 years through developing and successfully hosting the farmer engagement (Catchment Advisor) role highlighted within the dWRMP (P.35). Nottinghamshire Wildlife Trust fully support its inclusion in future plans as it has proven to be an extremely important tool for addressing agricultural issues – both relating to ground and surface waters. We also strongly support the ongoing commitment to the STEPS scheme, a vital component in the work of the Catchment Advisor as well as the Farmers as Producers of Clean Water scheme. For the Idle Catchment, Blueprint for Water's ask for 'significantly extending investment' could be applied to increasing the amount of funding available through STEPS, increasing capacity within the advisor role and making the current trial 'Cash for Catchments' fund available annually.* | To help extend the amount of investment brought into the Idle Catchment through STEPS priority grants, options need to be selected by farmers. Additional funding for other trial work in the Idle Catchment is planned this AMP through a maize trial.<br>The success and benefits of the Cash for Catchments fund will be analysed at the end of the year. The results and recommendations from this analysis will help us decide whether to run the fund annually in future.<br><br>Further information regarding consultation responses associated with the STEPS Programme is available in Appendix B1. |
| Nottinghamshire Wildlife Trust | ***Catchment Management***<br><br>*We also welcome STW's current active engagement in our Idle Catchment Steering Group and hope that this will also continue in the future, as it provides a constructive opportunity to work closely with STW and the EA together on catchment matters.* | Please refer to Appendix B1 - Biodiversity & Catchments |

| Stakeholder | Comment | Our Response |
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| Nottinghamshire Wildlife Trust | ***Summary***<br><br>*Nottinghamshire Wildlife Trust is fully supportive of Blueprint for Water's objectives and approach and is pleased to see that many of these have been incorporated into Severn Trent's dWRMP. We urge Severn Trent to set ambitious targets and demonstrate that they seek to lead the way within water industry in managing water resources sustainably and in an environmentally beneficial way. We have been working closely with Severn Trent under the CaBA approach and look forward to continuing to doing so in the future on an even greater scale, following the environmental enhancement and catchment management commitments outlined within the dWRMP.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| NRW | ***2.1 Metering***<br><br>*We note that Severn Trent have ambition to move to 100 percent metering through `persuaded optants`, we consider this policy should be tested on welsh customers, and that consideration is given as to how this policy will align to the metering approach taken for the Wrexham water resource zone. The company should also demonstrate how the plan is to deliver 100 percent meter coverage by 2035 if this option is retained for the supply area in Wales.*<br>*The plan states that Severn Trent will investigate, with Defra and the Environment Agency, the feasibility of becoming classified as a seriously water stressed area either for the whole region or for specific water resource zones. The company should note that the power to implement a compulsory metering programme does not exist for companies wholly or mainly in Wales.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| NRW | ***2.2 Leakage***<br><br>*Despite a companywide leakage reduction target of 15 percent by 2025, the Llandinam and Llanwrin zone has leakage remaining flat throughout the period. We expect the company to be more ambitious in their leakage target for this zone. As a minimum we would expect to see a reduction in underground supply pipe leakage as a result of the persuaded optants metering programme.* | Please refer to Appendix A2 - Leakage |
| NRW | ***2.3 Per Capita Consumption (pcc)***<br><br>*In the Llandinam and Llanwrin zone table the company has attributed all the water supply savings made through households moving to a water meter to a decrease in pcc. The water savings should be shared between pcc and underground supply pipe leakage.*<br><br>*The company should clarify what action it will take to reduce the per capita consumption to 110 litres per day by the end of the planning period or justify how this target can be reached by metering alone.* | Please refer to Appendix B4 - Demand Forecast |
| NRW | ***3.1 Climate Change***<br><br>*The plan states that "Possible climatic impacts on our limestone and river gravel sources are likely to be more significant as these aquifers generally have less storage and are potentially more susceptible to changes in climate". The Llandinam and Llanwrin zone is listed in the plan as being of low vulnerability to drought/climate change, however, as the abstraction is from river gravels, the company should explain why the zone has low vulnerability to climate change.* | Please refer to Appendix B2 - Climate Change & Uncertainty |
| NRW | ***3.2 Drought resilience - Table 10***<br><br>*For the final plan the company should complete table 10 for Llandinam and Llanwrin zone to help clarify how resilient the zone is to drought and to provide clarity on which historic drought event deployable output has been based on.* | Please refer to Appendix B5 - Drought Risk |
| NRW | ***4. Abstraction Reform***<br><br>*The company has stated that it is exploring the future possibilities for water trading and how it can make best use of any underutilised licensed quantity. If any of the sources for possible future trading are from Wales, the company should consult NRW to discuss the options.* | Please refer to Appendix A5 - Water Trading |
| NRW | ***5. Table Errors***<br><br>*In Table 3 BL Demand and Table 8 FP Demand for the Llandinam and Llanwrin water resource zone the total resources zone properties (45BL and 45FP) are not the same for the baseline and the final plan. In Table 8 FP Demand for the final plan the company has moved too many unmeasured households to measured households for the 5 year period from 2028 during the implementation of the 'persuaded optants' metering option. This has an accumulated effect for the rest of the planning period and means that by the end of the planning period (2044-45) the total properties in the final plan are about 1,950 more than the total properties in the baseline. The company should correct the total property numbers in table 8 FP Demand for the final plan.* | Please refer to Appendix B10 - WRMP Table Correction |

| Stakeholder | Comment | Our Response |
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| NRW | *We expect the company to set out how the Well-being of Future Generations (Wales) Act and the Environment (Wales) Act have been addressed for the Llandinam and Llanwrin water resource zone.* | Please refer to Appendix B1 - Biodiversity & Catchments |
| NRW | *We consider that overall Severn Trent Water's draft plan does demonstrate that it will provide a secure supply of water for customers in Wales as well as protect the environment in Wales over the next 25 years. However, the plan for the supply areas in Wales will need to address how policies, such as leakage and metering will align with those of Dee Valley Water's Wrexham zone where appropriate to enable Hafren Dyfrdwy to produce a comprehensive WRMP.* | The Severn Trent and Hafren Dyfrdwy final plans have been aligned so that the supply areas which have been transferred are addressed in a consistent way.<br><br>Please refer to Appendix A3 – Demand Management – metering & water efficiency for more information |
| NRW | ***1. Options affecting Wales***<br><br>*We expect the company to consult NRW if it progresses any options which involve the deployment of water from Wales and/or affect sites in Wales, to ensure that any of the required environmental assessments including Strategic Environmental Assessment and Habitat Regulation Assessment can be completed to a satisfactory standard.*<br><br>*With regards to future options that could affect Llyn Vyrnwy we recommend that Severn Trent Water should work with NRW and the Environment Agency together with other water companies who have an interest in the River Severn and Afon Vyrnwy to ensure the modelling capability for the river is improved to better understand the water availability and the environmental implications.*<br>*Use of water from the River Severn Tunnel is in the rejection log of supply options as no longer available. Severn Trent Water should explain why this option is no longer available as we were not aware that this is the case.* | Please refer to Appendix A5 - Water Trading |
| NRW | ***1. Options affecting Wales***<br><br>*We expect the company to consult NRW if it progresses any options which involve the deployment of water from Wales and/or affect sites in Wales, to ensure that any of the required environmental assessments including Strategic Environmental Assessment and Habitat Regulation Assessment can be completed to a satisfactory standard.*<br><br>*With regards to future options that could affect Llyn Vyrnwy we recommend that Severn Trent Water should work with NRW and the Environment Agency together with other water companies who have an interest in the River Severn and Afon Vyrnwy to ensure the modelling capability for the river is improved to better understand the water availability and the environmental implications.*<br><br>*Use of water from the River Severn Tunnel is in the rejection log of supply options as no longer available. Severn Trent Water should explain why this option is no longer available as we were not aware that this is the case.* | Please refer to Appendix A5 - Water Trading |
| NRW | ***1. Options affecting Wales***<br><br>*We expect the company to consult NRW if it progresses any options which involve the deployment of water from Wales and/or affect sites in Wales, to ensure that any of the required environmental assessments including Strategic Environmental Assessment and Habitat Regulation Assessment can be completed to a satisfactory standard.*<br><br>*With regards to future options that could affect Llyn Vyrnwy we recommend that Severn Trent Water should work with NRW and the Environment Agency together with other water companies who have an interest in the River Severn and Afon Vyrnwy to ensure the modelling capability for the river is improved to better understand the water availability and the environmental implications.*<br>*Use of water from the River Severn Tunnel is in the rejection log of supply options as no longer available. Severn Trent Water should explain why this option is no longer available as we were not aware that this is the case.* | Please refer to Appendix A5 - Water Trading |
| OFWAT | *There are significant differences in the data, methods and assumptions between the current and previous plan. These changes in approach means there are large differences between the plans which are difficult to reconcile and are not fully explained or justified. This is a concern where the changes result in larger deficits. We would expect the final plan to explain the reasons for the step change in approach and to assure us of its robustness.* | Please refer to Appendix B3 - Decision Making & Assurance and Appendix B9 - Data changes since WRMP14 |
| OFWAT | *We have concerns around the process adopted for plan development. It is unclear how the final programme was selected, how scenarios influenced the decision, and whether the deliverability of the programme has been assessed.* | Please refer to Appendix B3 - Decision Making & Assurance |
| OFWAT | *In the final plan we would expect to see a clear summary that concisely explains how and by whom the preferred portfolio was decided.* | Please refer to Appendix B3 - Decision Making & Assurance |

| Stakeholder | Comment | Our Response |
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| OFWAT | *Linked to the point above, the draft plan does not provide sufficient evidence that the proposed options are appropriate:*<br>• *It is unclear if the metering programme (97% meter penetration by 2045) is deliverable and has taken into account the experiences of other companies.*<br>• *While we welcome the company ambition in leakage reduction in the short term (a reduction of over 15% by 2025) after 2025 the ambition reduces greatly (4% reduction planned over the remaining 20 years).*<br>• *The preferred programme up to 2030 appears to be reliant on relatively small in-house supply options. We would look for assurance that third party options were given equal consideration in the selection of the programme.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| OFWAT | *Considering the potential trading role that Severn Trent Water can provide, we are disappointed the draft plan does not appear to fully take into account national or regional considerations. While we appreciate that these issues are not entirely an issue for Severn Trent Water alone, we encourage Severn Trent Water to actively participate and work to identify and develop intra and inter regional solutions.* | Please refer to Appendix A5 - Water Trading |
| OFWAT | ***1. Plan building blocks***<br><br>*Broadly, Severn Trent Water has used methods appropriate to the scale and complexity of the problem it needs to address and has applied a proportionate approach across its water resources zones. However, we have concerns around changes in approach from the previous plan in 2014, the integration of part of the Dee Valley Water area into the final plan and some wider aspects of the plan building blocks. In particular:*<br><br>*There are significant differences in the data, methods and assumptions used for the draft plan when compared to the previous plan in 2014. As this is not fully articulated in the narrative it is hard to track the delivery of the previous plan and understand the extent of the changes. For example, baseline deployable output has reduced from the previous plan by 72 Ml/d (3%) which represents more than half of the forecast deficit by 2025.* | Please refer to Appendix B9 - Data changes since WRMP14 |
| OFWAT | ***1. Plan building blocks***<br><br>*Broadly, Severn Trent Water has used methods appropriate to the scale and complexity of the problem it needs to address and has applied a proportionate approach across its water resources zones. However, we have concerns around changes in approach from the previous plan in 2014, the integration of part of the Dee Valley Water area into the final plan and some wider aspects of the plan building blocks. In particular:*<br><br>*The draft plan suggests that the supply system will be resilient to a 1-in-200 year drought event. However, for the final plan there will be changes to the water resources zones to align with national boundaries. It will need to be demonstrated that this level can be met for the part of Dee Valley Water's area that will be transferred to Severn Trent Water.* | Please refer to Appendix B5 - Drought Risk |
| OFWAT | ***1. Plan building blocks***<br><br>*Broadly, Severn Trent Water has used methods appropriate to the scale and complexity of the problem it needs to address and has applied a proportionate approach across its water resources zones. However, we have concerns around changes in approach from the previous plan in 2014, the integration of part of the Dee Valley Water area into the final plan and some wider aspects of the plan building blocks. In particular:*<br><br>*There is a lack of clarity in the draft plan on the consideration of non-drought resilience, such as freeze-thaw events, though it is noted that this is being developed for the company business plan. The final plan should set out the interaction between the draft plan and the company's wider proposals to manage system resilience and supply system efficiency.* | Please refer to Appendix B7 - Resilience |
| OFWAT | ***1. Plan building blocks***<br><br>*Broadly, Severn Trent Water has used methods appropriate to the scale and complexity of the problem it needs to address and has applied a proportionate approach across its water resources zones. However, we have concerns around changes in approach from the previous plan in 2014, the integration of part of the Dee Valley Water area into the final plan and some wider aspects of the plan building blocks. In particular:*<br><br>*The planning period used is 25 years which is the minimum required in the guidance. Other water companies with large and complex challenges have selected a longer planning horizon or undertaken sensitivity analysis to better understand the long term impact on resilience. We would expect Severn Trent Water to clearly set out the reason for its chosen planning period and assure us that the final plan will be sufficiently robust beyond 2045.* | Please refer to Appendix B3 - Decision Making & Assurance |

| Stakeholder | Comment | Our Response |
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| OFWAT | ***2. Customer participation***<br><br>*Severn Trent Water has carried out a wide ranging approach to customer participation. However, there is insufficient evidence that customers have been engaged on the scale and timing of the proposed options, the potential impacts of the preferred programme on their bills, and risks to supply resilience. We would expect Severn Trent Water to ensure that customers are fully engaged and that the plan is accessible. In particular:*<br><br>*The draft plan does not appear to be written with customers in mind. It is difficult to navigate and while the plan generally avoids technical terminology there is little use of diagrams or summary tables to aid the reader. It also does not include a short non-technical summary to help customer understanding of the plan.* | Please refer to Appendix A1 - Customers & Engagement |
| OFWAT | ***2. Customer participation***<br><br>*Severn Trent Water has carried out a wide ranging approach to customer participation. However, there is insufficient evidence that customers have been engaged on the scale and timing of the proposed options, the potential impacts of the preferred programme on their bills, and risks to supply resilience. We would expect Severn Trent Water to ensure that customers are fully engaged and that the plan is accessible. In particular:*<br><br>*Customers have been consulted through the PR19 customer research programme using various different approaches. While the company indicates that it has conducted willingness to pay research, there is no evidence that the bill impact of the various options has been discussed with customers in a meaningful way.* | Please refer to Appendix A1 - Customers & Engagement |
| OFWAT | ***2. Customer participation***<br><br>*Severn Trent Water has carried out a wide ranging approach to customer participation. However, there is insufficient evidence that customers have been engaged on the scale and timing of the proposed options, the potential impacts of the preferred programme on their bills, and risks to supply resilience. We would expect Severn Trent Water to ensure that customers are fully engaged and that the plan is accessible. In particular:*<br><br>*Severn Trent Water has sought to understand customer views on the impact of drought, however, greater clarity is needed in the final plan on the discussions with customers that took place. For example the willingness to pay research indicated that reducing the risk of standpipes was the least valued service improvement, which is then attributed to the complexity of drought return periods for customers to understand. It is also unclear whether relative drought resilience levels with other companies was also discussed.* | Please refer to Appendix A1 - Customers & Engagement |
| OFWAT | ***2. Customer participation***<br><br>*Severn Trent Water has carried out a wide ranging approach to customer participation. However, there is insufficient evidence that customers have been engaged on the scale and timing of the proposed options, the potential impacts of the preferred programme on their bills, and risks to supply resilience. We would expect Severn Trent Water to ensure that customers are fully engaged and that the plan is accessible. In particular:*<br><br>*Beyond the discussions on drought resilience it is not clear in the draft plan that wider resilience discussions have been held with customers. These should be included in the final plan.* | Please refer to Appendix A1 - Customers & Engagement |
| OFWAT | ***2. Customer participation***<br><br>*Severn Trent Water has carried out a wide ranging approach to customer participation. However, there is insufficient evidence that customers have been engaged on the scale and timing of the proposed options, the potential impacts of the preferred programme on their bills, and risks to supply resilience. We would expect Severn Trent Water to ensure that customers are fully engaged and that the plan is accessible. In particular:*<br><br>*We welcome the fact that feedback from customer research has influenced the selection of options, in particular the leakage and metering programmes. It is unclear how the options were presented including if each element, such as leakage reduction were discussed independently, rather than as a package. Clarity is required on how customers were engaged on the cost impacts of the different options and their relative weightings.* | Please refer to Appendix A1 - Customers & Engagement |

| Stakeholder | Comment | Our Response |
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| OFWAT | ***2. Customer participation***<br><br>*Severn Trent Water has carried out a wide ranging approach to customer participation. However, there is insufficient evidence that customers have been engaged on the scale and timing of the proposed options, the potential impacts of the preferred programme on their bills, and risks to supply resilience. We would expect Severn Trent Water to ensure that customers are fully engaged and that the plan is accessible. In particular:*<br><br>*The draft plan only provides a relatively brief description of the role that Severn Trent Water's English and Welsh Water Forums (Customer Challenge Groups) have had in assuring the customer engagement undertaken in the development of the plan. Greater clarity should be provided in the final plan.* | Please refer to Appendix A1 - Customers & Engagement |
| OFWAT | ***3. Demand forecast***<br><br>*Severn Trent Water has prepared a component based demand forecast according to the relevant guidance. We have concerns around the approach to population, nonhousehold demand forecasts and per capita consumption (PCC) trends. In particular:*<br><br>*Severn Trent Water should provide clarity on how it has incorporated local planning authorities updates on housing growth projections into its plan. The draft plan suggests these projections were based on Office for National Statistics population forecasts from 2014 and it is not explained how local authority projections, which could be higher, were incorporated into this.* | Please refer to Appendix B4 - Demand Forecast |
| OFWAT | ***3. Demand forecast***<br><br>*Severn Trent Water has prepared a component based demand forecast according to the relevant guidance. We have concerns around the approach to population, nonhousehold demand forecasts and per capita consumption (PCC) trends. In particular:*<br><br>*Greater clarity needs to be provided on trends for baseline PCC (without interventions) and how these interact with baseline water efficiency measures. For exAMPle the draft plan suggests that in the baseline the company average PCC is forecast to decline by 7% across the planning period, however, insufficient evidence is provided on baseline water efficiency activities to support this.* | Please refer to Appendix B4 - Demand Forecast |
| OFWAT | ***3. Demand forecast***<br><br>*Severn Trent Water has prepared a component based demand forecast according to the relevant guidance. We have concerns around the approach to population, nonhousehold demand forecasts and per capita consumption (PCC) trends. In particular:*<br><br>*Severn Trent Water forecasts non-household demand to remain stable through the planning period. However, it appears the company has not engaged with large users or retailers to enhance and validate this forecast. This is a gap and engagement here will help support the forecasting of nonhousehold demand.* | Please refer to Appendix B4 - Demand Forecast |
| OFWAT | ***3. Demand forecast***<br><br>*Severn Trent Water has prepared a component based demand forecast according to the relevant guidance. We have concerns around the approach to population, nonhousehold demand forecasts and per capita consumption (PCC) trends. In particular:*<br><br>*The 48 Ml/d used for 'water taken unbilled' is significantly larger than the estimate used in the previous plan (30 Ml/d). The draft plan does not provide sufficient explanation for this change and this should be clarified in the final plan.* | Please refer to Appendix B4 - Demand Forecast |

| Stakeholder | Comment | Our Response |
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| OFWAT | ***4. Supply forecast***<br><br>*Severn Trent Water has calculated available supply in line with the planning guidance. It has used statistical approaches to help determine low frequency drought yields with higher levels of confidence, which is an example of good practice. Climate change and abstraction licence changes are significant drivers of the supply forecast. However, we have identified some areas for improvement:*<br><br>*Abstraction licence changes reduce the supply forecast by 103 Ml/d (6%) by 2030. The draft plan was constructed incorporating the available information contained in Water Industry National Environment Programme 2 and the final plan will incorporate the next data release (WINEP3). We expect the final plan to explain any changes between these two releases and how the programme has changed as a consequence.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| OFWAT | ***4. Supply forecast***<br><br>*Severn Trent Water has calculated available supply in line with the planning guidance. It has used statistical approaches to help determine low frequency drought yields with higher levels of confidence, which is an example of good practice. Climate change and abstraction licence changes are significant drivers of the supply forecast. However, we have identified some areas for improvement:*<br><br>*Treatment works process losses have nearly doubled since the previous plan (from 33 Ml/d to 61 Ml/d). The draft plan does not explain the reasons for this change and this should be clearly set out in the final plan.* | Please refer to Appendix B4 - Demand Forecast |
| OFWAT | ***4. Supply forecast***<br><br>*Severn Trent Water has calculated available supply in line with the planning guidance. It has used statistical approaches to help determine low frequency drought yields with higher levels of confidence, which is an example of good practice. Climate change and abstraction licence changes are significant drivers of the supply forecast. However, we have identified some areas for improvement:*<br><br>*While the outage allowance (7% of demand) has reduced from the previous plan (by 2%), it is still higher than the industry average (6%). Given its impact on available supply we would expect the company to consider measures to reduce outage further given its forecast supply-demand deficits. It is unclear whether such outage improvement options have been considered.* | Please refer to Appendix B6 - Outage |
| OFWAT | ***5. Forecast uncertainty***<br><br>*Severn Trent Water has updated its methods to test its plan making use of a structured scenario and uncertainty testing model, which is a positive approach. However, there is a risk of double counting. We expect the final plan to ensure that there is no double counting and that the levels of target headroom are fully justified. In particular:*<br><br>*It is not clear how target headroom and the uncertainty elements included in the decision making upgrade model (DMU) are related. The draft plan does not explain how the risk of double counting uncertainty has been mitigated and we expect to see clarity on this in the final plan.* | Please refer to Appendix B3 - Decision Making & Assurance |
| OFWAT | ***5. Forecast uncertainty***<br><br>*Severn Trent Water has updated its methods to test its plan making use of a structured scenario and uncertainty testing model, which is a positive approach. However, there is a risk of double counting. We expect the final plan to ensure that there is no double counting and that the levels of target headroom are fully justified. In particular:*<br><br>*The target headroom allowance (13%) is larger than the industry average (8%). The components have also significantly changed from the previous plan, with climate change uncertainty increased and other components reduced. There is also an unusual trend for headroom, whereby it increases and then decreases across the planning period. All these points need to be explained and justified in the final plan.* | Please refer to Appendix B2 - Climate Change & Uncertainty |

| Stakeholder | Comment | Our Response |
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| OFWAT | ***6. Supply-demand balance***<br><br>*The supply-demand balance profile presented is in line with the assumptions of the individual supply and demand components and it appears to be consistent with the guidance. However, changes to individual components of supply and demand have been noted above, which need further clarification. The main planning factors driving the deficit are presented which include population growth, licence reductions and climate change.* | The changes to the individual components have been addressed through responses to points 1-5 above. |
| OFWAT | ***7. Options***<br><br>*Reflecting the scale of the challenge, Severn Trent Water has considered a range of supply and demand options. However, further work is required around a number of options, including the potential for water trades. In addition, greater clarity needs to be provided in the final plan on the leakage and metering programmes and the process used to develop supply options. In particular:*<br><br>*The screening criteria used to develop the feasible list of options appear to be appropriate. However, it is not clear how consistently the criteria have been applied as only simple yes/no responses to each criterion are provided in the rejection log.* | Please refer to Appendix A6 - Water Supply Options and Appendix B3 - Decision Making and Assurance. |
| OFWAT | ***7. Options***<br><br>*Reflecting the scale of the challenge, Severn Trent Water has considered a range of supply and demand options. However, further work is required around a number of options, including the potential for water trades. In addition, greater clarity needs to be provided in the final plan on the leakage and metering programmes and the process used to develop supply options. In particular:*<br><br>*Severn Trent Water has engaged in discussions with third parties to investigate supply options. However, we would want to see more evidence on the ways in which the third parties were engaged and to see third parties'*<br>*options fairly appraised in the final plan. Further considerations:*<br><br>• *A range of options from third parties were included on the unconstrained list, though these focus on supply-side options. The company should consider what it could do in order to promote further demand options.*<br>• *Only two third party options made it to the feasible list (separate canal transfers to* [Site C] *and Milford water treatment works) and neither were selected for the final plan. For options that did not make the feasible list Severn Trent Water should continue to actively engage with the third parties and provide support to ensure viable options are not unnecessarily screened out.*<br>• *We expect Severn Trent Water to demonstrate equal vigour in gathering data on third party options as with in-house options and to ensure equal treatment and consideration of the former. It should be careful to ensure that its in-house options are not unfairly or unduly favoured and that the principles for company bid assessment frameworks are followed.* | Please refer to Appendix A5 - Water Trading |
| OFWAT | ***7. Options***<br><br>*Reflecting the scale of the challenge, Severn Trent Water has considered a range of supply and demand options. However, further work is required around a number of options, including the potential for water trades. In addition, greater clarity needs to be provided in the final plan on the leakage and metering programmes and the process used to develop supply options. In particular:*<br><br>*Water trading with other water companies does feature in Severn Trent Water's draft plan with the potential for significant future imports and exports. We welcome the fact that the company has held discussions and provided information on potential trades with seven water companies and that it expects to include water trading options in its final plan. Further considerations:*<br><br>• *There is the potential for a large trade, to support companies in the south east, via the River Severn. This has been included in the United Utilities draft plan and would involve Severn Trent Water. We expect all the companies involved in this transfer option to continue to actively engage on progressing its assessment prior to publishing the final plans.*<br>• *Linked to this greater clarity is required on the Severn Trent Water's approach to water trading and how it will be incorporated into the final plan. There are 14 exports and 9 imports identified in the unconstrained list. However, no trading options are currently included in its list of feasible options or in its preferred plan even though the planning tables include over 50 Ml/d of additional exports and over 100 Ml/d of additional imports.* | Please refer to Appendix A5 - Water Trading |

| Stakeholder | Comment | Our Response |
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| OFWAT | ***7. Options***<br><br>*Reflecting the scale of the challenge, Severn Trent Water has considered a range of supply and demand options. However, further work is required around a number of options, including the potential for water trades. In addition, greater clarity needs to be provided in the final plan on the leakage and metering programmes and the process used to develop supply options. In particular:*<br><br>*We welcome the company's ambition for leakage reduction in the short term (a reduction of over 15% by 2025). However, after 2025 the ambition is greatly limited with only a further 4% reduction planned over the remaining 20 years. Further considerations:*<br>• *Greater clarity is required on the significant variance in the leakage reduction from zone to zone and how the incorporation of some Dee Valley Water zones will impact on the total leakage reduction target.*<br>• *Only a single preferred leakage strategy is proposed and there is no discussion of what alternative options and scale of reduction were considered.*<br>• *The draft plan contains only limited details of how the company will achieve its leakage targets and greater clarity is required on this in the final plan.* | Please refer to Appendix A2 - Leakage |
| OFWAT | ***7. Options***<br><br>*Reflecting the scale of the challenge, Severn Trent Water has considered a range of supply and demand options. However, further work is required around a number of options, including the potential for water trades. In addition, greater clarity needs to be provided in the final plan on the leakage and metering programmes and the process used to develop supply options. In particular:*<br><br>*Severn Trent Water proposes an ambitious enhanced metering programme, to increase meter penetration to 97% over 20 years to 2040. However, in the final plan greater clarity on the deliverability of this programme is required, alongside thorough testing of the impact of not being able to meet this target. Further considerations:*<br>• *Compulsory metering can only be introduced if the company is classified as an area of serious water stress by the Environment Agency. This is classification is being sought by Severn Trent Water.*<br>• *The proposed 97% meter penetration target is out of step with the experiences of other companies who have found it difficult and expensive to achieve more than 90-95% meter penetration. This is due to problems at individual customers' premises and the high costs of some meter installations.*<br>• *Given the uncertainties in delivery, the consequences of not meeting the ambitious metering target on the supply-demand balance should be tested and the impacts on other options presented.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| OFWAT | ***7. Options***<br><br>*Reflecting the scale of the challenge, Severn Trent Water has considered a range of supply and demand options. However, further work is required around a number of options, including the potential for water trades. In addition, greater clarity needs to be provided in the final plan on the leakage and metering programmes and the process used to develop supply options. In particular:*<br><br>*The long term target for average PCC at 121 l/h/d by 2045 is in line with the average for other companies nationally (122 l/h/d). This is based on the current programme of home and social housing water efficiency audits. Given the proposed metering levels and Severn Trent Water's needs, it may be appropriate for the company to consider an even more ambitious target for reducing PCC.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| OFWAT | ***7. Options***<br><br>*Reflecting the scale of the challenge, Severn Trent Water has considered a range of supply and demand options. However, further work is required around a number of options, including the potential for water trades. In addition, greater clarity needs to be provided in the final plan on the leakage and metering programmes and the process used to develop supply options. In particular:*<br><br>*We welcome the fact that Severn Trent Water propose to continue its current 27 catchment management schemes and to add a further eight schemes to address identified issues.* | The support of OFWAT regarding our proposal to continue our current 27 catchment management schemes and to add a further eight schemes is acknowledged. Further information regards consultation responses associated with our catchment management programme is available in Appendix B1 - Biodiversity & Catchments. |

| Stakeholder | Comment | Our Response |
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| OFWAT | ***7. Options***<br><br>*Reflecting the scale of the challenge, Severn Trent Water has considered a range of supply and demand options. However, further work is required around a number of options, including the potential for water trades. In addition, greater clarity needs to be provided in the final plan on the leakage and metering programmes and the process used to develop supply options. In particular:*<br><br>*A large number of supply options are presented and 23 are selected in the preferred plan. However, the draft plan does not provide sufficient evidence that the proposed supply-side options are appropriate. Further considerations:*<br>• *Across the options we would welcome clarity on the assumptions made in the development of the draft plan. This should include greater detail on the potential risks in deliverability and uncertainty in timing of the options.*<br>• *Only limited information is provided in the draft plan on the feasible and preferred schemes so it is not possible to assess the options in detail. Further clarity should be provided in the final plan on these schemes.*<br>• *All of the supply options presented have build times of exactly 5 or 10 years with some having identical yields for different sized schemes, for example all 3 reservoir expansion schemes (Lower Shustoke, Stanford and Whitacre) in the Strategic grid zone have a yield of 2.5Ml/d and a delivery time of 5 years. The final plan should provide greater clarity on the process taken to develop these options and assess their delivery.* | Please refer to Appendix A6 - Water Supply Options |
| OFWAT | ***7. Options***<br><br>*Reflecting the scale of the challenge, Severn Trent Water has considered a range of supply and demand options. However, further work is required around a number of options, including the potential for water trades. In addition, greater clarity needs to be provided in the final plan on the leakage and metering programmes and the process used to develop supply options. In particular:*<br><br>*Severn Trent Water has not provided evidence of how option costing was completed for the draft plan. The company should provide an explanation of its option costing process, including cost assumptions and their application to different scheme types and how methods will be consistently applied to PR19 business planning.* | Please refer to Appendix A6 - Water Supply Options |
| OFWAT | ***8. Decision making***<br><br>*Severn Trent Water has adopted a complex method of decision making which is consistent with its problem characterisation approach. However, we have concerns about the approach to decision making, the lack of transparency on how the preferred programme was selected and the assessment of deliverability of the programme. In particular:*<br><br>*Severn Trent Water has adopted a complex method of decision making which has considered and compared 60 scenarios using its new DMU model. While complex methods may be appropriate for developing more robust programmes when required, there is a risk of reduced transparency, which needs to be considered. In particular:*<br><br>• *There is limited detail on how the results of the scenario testing was used to inform the draft plan and greater clarity is required on why the preferred plan was selected and what alternative plans were considered.*<br>• *The steps taken to generate the scenarios and programmes are also unclear, as are the outputs of option selection.*<br>• *No evidence was found that non-monetised metrics, for example resilience or customer preference, have been used in the decision making process of option selection and scenario analysis.*<br>• *Severn Trent state in Appendix E that the draft plan is a least cost plan, however, in a number of cases the feasible options have lower costs than the preferred options. For example, in the North Staffordshire zone the feasible Tittesworth reservoir expansion and in the Strategic grid zone the River Severn raw water import both have lower costs than the preferred options chosen.*<br>• *There is no summary in the draft plan that provides a concise and transparent overview of the decision making process. In the final plan, for clarity, we would expect to see a clear summary that concisely explains how and by whom the preferred portfolio was decided on.* | Please refer to Appendix B3 - Decision Making & Assurance |

| Stakeholder | Comment | Our Response |
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| OFWAT | ***8. Decision making***<br><br>*Severn Trent Water has adopted a complex method of decision making which is consistent with its problem characterisation approach. However, we have concerns about the approach to decision making, the lack of transparency on how the preferred programme was selected and the assessment of deliverability of the programme. In particular:*<br><br>*The preferred programme up to 2030 appears to be reliant on relatively small in-house options. For example this includes five reservoir options, three new water treatment works and six treatment works enhancements. Greater clarity is required on why these options are selected and evidence given that third party options have been treated and considered equally.* | Please refer to Appendix B3 - Decision Making & Assurance<br><br>Appendix D of our draft WRMP describes the full list of potential water trading options that were considered alongside potential new water resource, treatment and distribution options in our investment modelling. For our final WRMP we have updated our assessment of potential options and have aligned our assumptions with neighbouring water companies.<br>Please refer to Appendix A5 - Water Trading for more information. |
| OFWAT | ***8. Decision making***<br><br>*Severn Trent Water has adopted a complex method of decision making which is consistent with its problem characterisation approach. However, we have concerns about the approach to decision making, the lack of transparency on how the preferred programme was selected and the assessment of deliverability of the programme. In particular:*<br><br>*Deliverability does not appear to have been considered in the decision making process. There is no clear evidence in the draft plan that either the final programme or its constituent options are deliverable. For example some supply options may be difficult to deliver to programme whilst also mitigating risks to customers, such as the multiple treatment works upgrades proposed for the same 5 year period or the untested East Leicestershire quarry scheme.* | Please refer to Appendix B3 - Decision Making & Assurance |
| OFWAT | ***8. Decision making***<br><br>*Severn Trent Water has adopted a complex method of decision making which is consistent with its problem characterisation approach. However, we have concerns about the approach to decision making, the lack of transparency on how the preferred programme was selected and the assessment of deliverability of the programme. In particular:*<br><br>*There is evidence of independent assurance of the draft plan and of engagement with the Severn Trent Water executive team and the Board during the plan development and its approval.* | Please refer to Appendix B3 - Decision Making & Assurance |
| OFWAT | ***9. National and regional considerations***<br><br>*The draft plan does not appear to fully take into account national or regional considerations and the potential for the company to act as a trading hub between regions of surplus and deficit. We expect the regional level discussions to be ongoing and for greater clarity on these considerations to be provided in the final plan. In particular:*<br><br>*The work of the Water UK national project is referenced, but there is limited comparison of inputs and assumptions.* | Please refer to Appendix A5 - Water Trading |
| OFWAT | ***9. National and regional considerations***<br><br>*The draft plan does not appear to fully take into account national or regional considerations and the potential for the company to act as a trading hub between regions of surplus and deficit. We expect the regional level discussions to be ongoing and for greater clarity on these considerations to be provided in the final plan. In particular:*<br><br>*There is also no reference made to the Water Resources East regional group that the company has participated in.* | Please refer to Appendix A5 - Water Trading |
| OFWAT | ***9. National and regional considerations***<br><br>*The draft plan does not appear to fully take into account national or regional considerations and the potential for the company to act as a trading hub between regions of surplus and deficit. We expect the regional level discussions to be ongoing and for greater clarity on these considerations to be provided in the final plan. In particular:*<br>*There is no reference to discussions with Water Resources South East.* | Please refer to Appendix A5 - Water Trading |

| Stakeholder | Comment | Our Response |
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| R. Idle catchment partnership | ***Leakage and consumption targets***<br><br>*To meet future demand for water, Severn Trent proposes to address leakage and demand as well as securing new supply from outside of the catchment.*<br>*Where targets are proposed for reducing both leakage and per capita consumption, we note that Severn Trent have placed themselves 8th and 10th respectively when compared to 17 other water companies nationally (for the 25 year period). Whilst we welcome that they have set more ambitious targets than some companies, we would urge them to reconsider whether they could make further improvements to target figures and set the best possible example. This aligns to Blueprint for Water's outcomes and priorities relating to using water wisely and pricing water fairly.* | Please refer to Appendix A2 - Leakage |
| R. Idle catchment partnership | ***Leakage and consumption targets***<br><br>*To meet future demand for water, Severn Trent proposes to address leakage and demand as well as securing new supply from outside of the catchment.*<br>*Where targets are proposed for reducing both leakage and per capita consumption, we note that Severn Trent have placed themselves 8th and 10th respectively when compared to 17 other water companies nationally (for the 25 year period). Whilst we welcome that they have set more ambitious targets than some companies, we would urge them to reconsider whether they could make further improvements to target figures and set the best possible example. This aligns to Blueprint for Water's outcomes and priorities relating to using water wisely and pricing water fairly.* | Please refer to Appendix A2 - Leakage |
| R. Idle catchment partnership | ***Restoring sustainable abstraction***<br><br>*Many of the catchment's watercourses are subject to low flow which has a negative impact on the environment. Severn Trent's plans for continuing the Restoring Sustainable Abstraction programme are therefore welcomed. Reduction in abstraction coupled with new supply from outside of the catchment could have a significant environmental benefit if carefully planned.*<br><br>*We note that a new supply scheme is proposed within the catchment (the Heathy Lea to North Nottinghamshire transfer solution) for AMP7. We would expect any such project to be accompanied by a full Environmental Impact Assessment to ensure that construction and operation of a new pipeline would not have a negative impact – moreover, we urge Severn Trent to take the opportunity to seek a net gain in biodiversity where possible through this project, and would welcome the opportunity to work with STW to identify areas where this could be achieved.*<br>*We welcome that a commitment to addressing abstraction reflects Blueprint for Water's outcomes and priorities relating to keeping our rivers flowing and our wetlands wet.*<br><br>*On P.11, we note that Severn Trent clearly state that they "need to be satisfied that our abstractions and operations do not cause environmental deterioration at some point in the future", a commitment that is strongly supported by the Catchment Partnership.* | For information regarding RSA related topics please refer to A4 - Water Industry National Environment Programme (WINEP)<br><br>For information regarding EIA related topics please refer to A6 - Water Supply Options<br><br>For information regarding biodiversity please refer to B1 - Biodiversity & Catchments |
| R. Idle catchment partnership | ***Environmental Measures***<br><br>*The dWRMP makes a number of references to using environmental protection measures as mitigation for the impact of ongoing operations. In accordance with the mitigation hierarchy, the Catchment Partnership would like to point out that avoidance of impact in the first instance should be prioritised over mitigation and finally compensation. However, we understand that in some cases these measures are considered short term solutions whilst long term solutions such as new sources of supply are in the process of delivery.*<br><br>*We welcome that Severn Trent proposes to engage with local stakeholders and landowners to assist in the implementation of environmental schemes. Clearly there are a number of catchment partnerships already in operation, such as the River Idle Catchment Partnership (working under CaBA) so 'developing catchment partnerships' (P.33, para 2) is unlikely to be necessary. However, we are fully supportive of continuing to develop and enhance our work with Severn Trent which will benefit the catchment. One important site in the Idle Catchment where we would like to see prioritised for work within AMP7, is Unit 1 of the Idle Washlands SSSI which contains a treatment works that was buried in the 1970s and which should be addressed at the earliest opportunity in order to help to bring the SSSI into favourable condition.*<br><br>*Both low flow support measures and catchment and river restoration improvements are proposed as mitigating local environmental measures. Within the Idle Catchment, a number of projects have already been delivered which use river restoration techniques to improve habitats and ecological resilience to low flows. We strongly support the commitment to scaling up the AMP6 approach and hope that it will be well funded and that catchment partners will be able to input into the planning and delivery process for AMP7 and beyond.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |

| Stakeholder | Comment | Our Response |
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| | *Where low flow support measures are proposed, we recommend that Severn Trent focus on waterbodies where low flow has already been identified as an issue within the Idle Catchment, for example Bevercotes Beck, River Maun and Rainworth Water*<br><br>*The dWRMP makes specific reference to environmental improvement measures including realignment and changes to make the shape more natural, instream measures to improve the diversity of habitat types, riparian management such as fencing and buffer strips to reduce nutrients and sediments entering rivers, fish passes and removal of instream barriers (P.33). The River Idle Catchment Partnership are extremely supportive of these measures and would like to see them all utilised within the catchment where relevant. There is substantial experience of implementing such measures within the Catchment Partnership, so we look forward to working with STW on the best way to achieve delivery on the ground.*<br><br>*Severn Trent have also indicated a commitment to exploring the use of Ofwat's Abstraction Incentive Mechanism (AIM) as a way of helping prevent future deterioration. We are supportive of this approach as it aligns with Blueprint for Water's outcomes and priorities relating to keeping our rivers flowing and our wetlands wet.* | |
| R. Idle catchment partnership | ***Catchment Management***<br><br>*P.10 of the dWRMP states that "In recent years we have implemented an ambitious catchment management programme to protect our sources from pollution. Catchment management plays a critical role in supporting our supply/demand plan by helping ensure reliable and sustainable output from our existing sources". The River Idle Catchment Partnership strongly supports this approach to catchment management and has further comments on this below.*<br><br>*Blueprint for Water's outcomes concerning protecting and restoring catchments1 call for companies to significantly extend investment in catchment management, showing leadership in the Catchment Based Approach, and a commitment to working with partners.*<br><br>*The Idle Catchment has played a key role in Severn Trent's catchment management approach over the last 2 years through support for the farmer engagement (Catchment Advisor) role highlighted within the dWRMP (P.35). This role has been successfully hosted by Nottinghamshire Wildlife Trust and the partnership fully support its inclusion in future plans as it has proven to be an extremely important tool for addressing agricultural issues – both relating to ground and surface waters. We also strongly support the ongoing commitment to the STEPS scheme, a vital component in the work of the Catchment Advisor as well as the Farmers as Producers of Clean Water scheme. For the Idle Catchment, Blueprint for Water's ask for 'significantly extending investment' could be applied to increasing the amount of funding available through STEPS, increasing capacity within the advisor role and making the current trial 'Cash for Catchments' fund available annually.* | To help extend the amount of investment brought into the Idle Catchment through STEPS priority grants, options need to be selected by farmers. Additional funding for other trial work in the Idle Catchment is planned this AMP through a maize trial.<br>The success and benefits of the Cash for Catchments fund will be analysed by the end of the year. The results and recommendations from this analysis will help us decide whether to run the fund annually in future.<br><br>Further information regarding consultation responses associated with the STEPS Programme is available in Appendix B1 - Biodiversity & Catchments |
| R. Idle catchment partnership | ***Summary***<br><br>*The River Idle Catchment Partnership is fully supportive of Blueprint for Water's objectives and approach and is pleased to see that many of these have been incorporated into Severn Trent's dWRMP. We urge Severn Trent to set ambitious targets and demonstrate that they seek to lead the way within water industry in managing water resources sustainably and in an environmentally beneficial way. We have been working closely with Severn Trent under the CaBA approach and look forward to continuing to doing so in the future on an even greater scale, following the environmental enhancement and catchment management commitments outlined within the dWRMP.* | We appreciate the support for our overall approach to addressing our restoring sustainable abstraction from the River Idle catchment partnership. |

| Stakeholder | Comment | Our Response |
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| RSPB | ***Multisector, pan-regional water resource planning***<br><br>*We believe that there is a lack of a clear line of sight in water resource planning from the national scale to regional to company and that this risk may lead to solutions that may work in the interest of one company but not for a region or nationally. It also leads to the risk of neighbouring plans not aligning adequately in what they propose. We welcome efforts by the industry to address this gap through groups such as Water Resources South East and Water Resources East and we want to see these initiatives further developed in AMP7. We also expect the Environment Agency and National Resources Wales to take action to ensure that there a better approach in place for WRMP24*<br>*We want Severn Trent Water to commit in your final plan to playing a full role in promoting and participating in national and regional scale water resource planning initiatives in AMP7* | Please refer to Appendix A5 - Water Trading |
| RSPB | ***Multisector, pan-regional water resource planning***<br><br>*We have been pleased to be a part of multi-sector water resource planning through the Water Resources East (WRE) initiative led by Anglian Water. This process has provided invaluable shared insight into the future water resource challenges shared across multiple sectors and had started to explore the potential for solutions that benefit multiple sectors.*<br>*We want Severn Trent Water to commit in your final plan to working with other sectors in AMP7 to both assess the scale of future challenge across sectors and to develop solutions that work for multiple sectors using the information to inform WRMP24.* | Please refer to Appendix A5 - Water Trading |
| RSPB | ***Resilience***<br><br>*We are pleased to see government, regulators and the water companies increased consideration of resilience in this current round of water resource and business plans. When water companies are not resilient it is often the environment that pays the price through over-abstraction and an increased reliance on drought permits and orders. We therefore welcome efforts by the sector to plan based on being more resilient to a 1 in 200 year drought and are pleased that Severn Trent Water is already at this position.*<br><br>*We believe a resilient natural environment underpins a resilient water industry and were pleased to see investing in the resilience of the natural environment highlighted by Defra and Welsh Government in their strategic guidance to the sector. The Environment Agency/Natural England in the WISER document state that "We expect business plans to detail the steps you plan to take to build resilience in water infrastructure and the natural environment" whilst OFWAT have included a Resilience Planning Principle (No. 2) for the companies that stated "Promoting ecosystem resilience and biodiversity is a key part of the decision-making process for ensuring resilient services"*<br>• *We want Severn Trent Water to clearly set out in your final plan what steps you are taking to understand, promote and build the resilience of the natural environment in line with OFWAT's Resilience Planning Principle 2.*<br>• *We would like Severn Trent to support the joint "Naturally Resilient" project being promoted through Water UK and Blueprint for Water to explore the interplay between resilience in the water sector and resilience of the natural environment.*<br>• *We want Severn Trent Water to commit to using a longer time horizon in WRMP24 to ensure that the investment decisions made are robust in the longer term.* | Please refer to Appendix B7 – Resilience and B3 – Decision making & assurance |

| Stakeholder | Comment | Our Response |
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| RSPB | ***Resilience***<br><br>*We are concerned about the long-term resilience of the Sherwood Sandstone aquifer in Nottinghamshire. It is an important groundwater supply for drinking water and agriculture (see figure below) and it is evident from the draft WRMP that water quality and water resource pressures associated with the aquifer and its associated land use are driving substantial investment in demand and supply side schemes. RSPB has previously highlighted to Severn Trent Water's water resources and catchment staff our interest in seeing a resilience study undertaken by the company on the aquifer looking at current land use and pressures; at how these might change into the future, including under projected climate change scenarios; what that might mean in terms of both water volume and quality; and what role the company could take in advocating for land use changes that reduce demand and improve water quality, so giving the Sherwood Sandstone aquifer a more sustainable and resilient future.*<br>• *We want to see Severn Trent Water commit in its final plan to undertake a resilience study in AMP7 on the Sherwood Sandstone aquifer. We would be happy to work with the company and other stakeholders to scope out and progress this.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| RSPB | ***Sustainability reductions and the Abstraction Incentive Mechanism (AIM)***<br><br>*Addressing existing unsustainable abstraction and its impact on the environment is a priority for the RSPB and for Blueprint for Water and we also want to see action taken to remove the risk of WFD deterioration from changes in the use of existing abstraction licences.*<br>• *We expect Severn Trent Water to have addressed all remaining RSA sustainability reduction actions linked to known impacts on protected conservation sites and Water Framework Directive water body status by the end of AMP7. It is not clear from your plan whether this will be the case or whether you are proposing to extend delivery of solutions into AMP8 for some sites with known impacts. We would appreciate greater clarity on this issue such as a table setting out when solutions will be implemented for each site and if a delay is proposed why and what will be done in the interim to mitigate impacts.*<br>• *We are pleased to see that there will be ongoing work to investigate and progress the best solutions to address Water Framework Directive risk of status deterioration. We believe this work should be undertaken on a prioritised basis with the abstractions posing greatest risk addressed first. We would like to see a similar approach more widely undertaken in other sectors such as agriculture and land use planning if WFD requirements are to be met.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| RSPB | ***Sustainability reductions and the Abstraction Incentive Mechanism (AIM)***<br><br>*Whilst the existing sustainability reduction programme has focussed on addressing impacts of existing abstraction on water dependant conservation sites it has not considered future long term risks to these sites from abstraction in light of climate change and associated changes in flow patterns and groundwater levels. It is therefore not truly a sustainability programme and we believe a new forward looking programme needs to be established by the sector. The multi-sectoral work undertaken in WRE did start to shine a light on this future challenge and start to signpost potential solutions that addressed both the environmental sustainability challenge and the needs of public water supply and of other sectors.*<br>• *We want Severn Trent Water to commit to undertaking investigative work in AMP7 to assess future risks to conservation sites and the environment arising from your abstractions given a likely climate change scenario of changing flow patterns and groundwater levels* | Please refer to Appendix B2 - Climate Change & Uncertainty |
| RSPB | ***Sustainability reductions and the Abstraction Incentive Mechanism (AIM)***<br><br>*We are pleased to see OFWAT mandating the adoption of the Abstraction Incentive Mechanism in AMP7 and that Severn Trent Water are actively investigating how they can use it in AMP7. We will be interested to hear more about how the approach can be used as part of the measures the company takes to address the risk of WFD deterioration from future abstraction.*<br>• *We ask Severn Trent Water to set out in more detail their proposals for utilising AIM in AMP7 including where and how they will use AIM to mitigate for risks of impact on environmental sites and WFD status.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |

| Stakeholder | Comment | Our Response |
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| RSPB | ***Ambition on demand management***<br><br>*The UK Water Resources Long Term Planning Framework report highlighted the resilience challenges faced by water companies and the need for them to make a step change on demand management. This challenge to the companies to go much further and faster on demand management including on leakage, metering and water efficiency was echoed in the guidance from government and the regulators and in the Blueprint for PR19. We believe companies WRMPs should be prioritising demand management solutions that leave more water in the environment, increase resilience and can save customers money over major new supply side schemes. We expect to see evidence of a step change in ambition on demand management in the draft WRMPs*<br>• *We are pleased to see that Severn Trent Water is not planning overall to put more water into distribution either by the end of AMP7 in 2025 or by 2045. This is one of our priorities in the Blueprint for PR19.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| RSPB | ***Ambition on demand management***<br><br>*However, your anticipated performance on leakage of around 115 l/property/day in 2020 means you are one of the worst performing water company in the sector on leakage. Whilst we recognise that your draft plan target of 93 l/p/d by 2025 represents one of the largest % improvements in the sector in AMP7 we are concerned that this level of ambition is then not maintained into AMP8 and through to 2045 with the effect that you are once again in the bottom few companies by 2045. This seems at odds with the ambition you have on meter penetration and implies that the additional insight on leakage provided by such widespread metering will not be used to realise any significant further gains on leakage.*<br>• *We want to see Severn Trent Water increasing its level of long term ambition beyond 2025 on leakage. Given Severn Trent Water's significant water resource challenges in terms of sustainability reductions and environmental impact together with plans for new supply side schemes we do not think the company is ambitious enough in the longer term on leakage.* | Please refer to Appendix A2 - Leakage |
| RSPB | ***Ambition on demand management***<br><br>*Your anticipated performance on metering of 48% penetration (excl voids) is amongst the lowest in the sector. Your draft plan target of 65% by 2025 and 100% by 2045 is welcomed and would see the company as the sector lead. We understand that this will be pursued through a proactive campaign to include the installation of household meters even where they aren't to be used for billing purposes.*<br>• *We are pleased with Severn Trent Water's short and long-term commitment to metering. Given the scale of ambition progress will need to be carefully tracked.* | Please refer to Appendix A3 Demand Management – metering & water efficiency |
| RSPB | ***Ambition on demand management***<br><br>*Your draft plan position of 132 l/h/d per capital consumption in 2020 is relatively good for the sector as is your 2025 target of 128 l/h/d and longer-term target of for 2045 target of 121 l/h/d. We are pleased to see this level of overall ambition and your plans to use customer interactions and developer applications to promote water efficiency. The level of engagement on water efficiency with businesses through the new water retail companies is extremely disappointing and worrying however we recognise that the issues may be sectoral rather than specific to Severn Trent.*<br>• *We are pleased with Severn Trent Water's ambition on PCC in both the short and long term. We would like to see this more clearly shown using graphs/tables in the final plan.*<br>• *We want to see Severn Trent water highlighting to OFWAT any issues that it is having in engaging business customers on water efficiency via the new water retail companies given the water resources challenges highlighted in the draft plan.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |

| Stakeholder | Comment | Our Response |
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| RSPB | ***Ambition on demand management***<br><br>*We are pleased to see Severn Trent Water stepping up the Home Check scheme. We would like to see the use of household and community incentives linked to PCC during dry periods considered.*<br><br>• *We want Severn Trent Water to commit in your final plan to piloting the use of household and community incentives during dry weather periods to reduce demand.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| RSPB | ***Ambition on demand management***<br><br>*We are pleased to see Severn Trent Water engaging with developers on water efficiency and encouraging good practice through reduced infrastructure charges. We want to see the company advocating for all new development to be at the leading edge on water efficiency.*<br><br>• *We want Severn Trent Water to commit in your final plan to working with developers to ensure new development incorporates water efficient homes and with other stakeholders to advocate to government for stronger building regulations in water stressed areas.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| RSPB | ***Supply side schemes***<br><br>*Whilst we want companies to prioritise investment in demand side measures which leave more water in the environment we do recognise the need for demand side measures to meet growth and climate change and in Severn Trent Water's case deficits arising from sustainability reductions. In your draft Plan you identify the need for new supply side schemes alongside demand management. The majority of these involve optimising existing assets and moving water around the company's area.*<br>• *We are satisfied with Severn Trent Water's efforts to identify the environmental implications of the supply side schemes put forward including the SEA, Habitats Directive Assessments and WFD compliance assessments.* | We acknowledge the comments made by the RSPB regarding the hierarchy of option selection and our approach of prioritising demand side measures over supply side options.<br>In the assessment of all available options, we have invested in SEA, Habitats Directive Assessments and WFD compliance assessments to ensure environmental and sustainability aspects were understood. We are appreciative that this has been acknowledged by the RSPB. Further details of our decision making process can be found in Appendix A6 - water supply options and Appendix B3 - Decision making & assurance. |
| RSPB | ***Supply side schemes***<br><br>*However, we have found it difficult to get a clear picture on the scale and location of inter-company transfers. We understand that discussions are still live between companies and with the regulators and that these include major schemes such as the Severn Thames transfer.*<br>• *We believe that additional stakeholder and customer engagement will be necessary if there are any substantive changes between the draft and final plan with respect to the preferred supply side solutions.* | Please refer to Appendix A5 - Water Trading |
| RSPB | ***Supply side schemes***<br><br>*We are pleased to see government promoting the "net gain" principle in relation to development. This is in line with the ambition to leave the environment in a better state than when we found it and is included in Defra's 25 Year Plan for the Environment and as a principle in the consultation on the National Policy Statement for Water Resources. Whilst there are risk of trade-offs between aspects of the environment we believe if implemented correctly the principle can deliver positive outcomes.*<br>• *We want Severn Trent Water to commit in its final plan that all the supply side water resource schemes you progress in AMP7 will deliver a net gain in biodiversity and for the wider environment* | Please refer to Appendix B1 - Biodiversity & Catchments |

| Stakeholder | Comment | Our Response |
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| RSPB | ***Adopting the Catchment Based Approach***<br><br>*We are strong advocates of the Catchment Based Approach and have been at the forefront in working with water companies to progress catchment solutions rather than end of pipe solutions tackling problems at source. We want to see water companies as active players in advocating and encouraging good land management that reduces risks to their customers and increases the resilience of their assets and operations.*<br>• *Severn Trent Water's catchment management work has been industry leading and we are pleased to see the company committing in the draft plan to continuing and expanding this work. We are also pleased that the company continues to take a more holistic approach in these catchments rather than a focus on a single chemical or issue.*<br>• *We want to see Severn Trent Water advocating regulatory measures where voluntary catchment actions have not been sufficiently successful and where it is in the customer's interest.* | Please refer to Appendix B1 - Biodiversity & Catchments |
| RSPB | ***Use of natural capital / environmental B:C***<br><br>*Defra have signalled in the 25 Year Plan for the Environment the expectation that organisations will increasingly factor the value of natural capital (NC) into their decision making. This is something we support providing that things that are hard to put a financial value on such as biodiversity are adequately incorporated. RSPB recently published a Natural Capital Account of our own estate and we would be happy to work with you on how the approach is taken up in your organisation. Many water companies are planning to assess their natural capital stocks across their estate in AMP7 as well as develop the NC approach so that it can be used to inform investment decision making in time for the PR24. Several are finalising performance commitments linked to NC. However, we can't find any reference in the draft WRMP to the use of natural capital*<br>• *We want Severn Trent Water to commit in your final plan to work on the natural capital approach in AMP7 with the express intent of using it in anger in PR24.*<br>• *We want to see Severn Trent Water undertake an assessment of the Natural Capital stocks it is directly responsible for across its estate and to make a commitment to maintain and enhance those stocks during AMP7.* | Please refer to Appendix B1 - Biodiversity & Catchments |
| RWE Generation UK | *We are neutral with respect to much of the dWRMP19 content.*<br>*However, we do not support measures that would have the effect of reducing low flows in the Trent at Staythorpe since such measures would increase the severity and frequency of existing and potential future additional licence constraints (HOFs) with the potential to:*<br>*Constrain further the operation of water-dependent power plant at Staythorpe*<br>*Put further at risk the UK security of electricity supply by preventing the power plant at Staythorpe from delivering commitments under the capacity market.*<br>*Such measures could include some versions of transfers from the river Trent upstream of Staythorpe and also diversions of effluent streams that otherwise would have entered the Trent upstream of Staythorpe. There appear to be several possible options falling into this category including transfer from the upper and middle Trent to either Anglian or Thames, some of which may involve diversion from Minworth STW, if they were to operate during low flow periods. We would be supportive of transfers out operating other than at low flows (perhaps linked to storage) and indeed RWE could benefit in Anglian and Thames regions from such transfers through them offering new means of managing our constraints at low flows in the receptor regions (subject to commercial considerations).* | Please refer to Appendix A5 - Water Trading |
| RWE Generation UK | *Conversely, we support measures that either increase flows at low flow or have the potential to increase flow at low flows at Staythorpe since these could offer new means of managing constraints at low flows (subject to commercial considerations) were any such to develop in the coming years. This could include trading of physical water, or water rights, or water allocation associated with water rights in some future water resource management regime. We are therefore generally supportive of the principle of new storage capacity or of measures which would allow use of the existing storage capacity (eg Carsington) to be generalised to include support of downstream users. It is unclear whether the possible diversion from Derwent Valley Aqueduct to Nottingham would be positive in this regard. The conversion of the Birmingham groundwater scheme to public supply and the Site E WTW expansion and transfer supported by augmentation of the Trent may be positive depending on the routing from site E. The conversion of third party assets for the strategic storage of high flow water looks to be positive in this regard but details are unclear,* | Please refer to Appendix A5 - Water Trading |

| Stakeholder | Comment | Our Response |
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| RWE Generation UK | *We are also in general supportive of transfers into the Trent upstream of Staythorpe that would operate at low flows on the Trent (either directly or through high flow only transfer schemes linked to storage and release schemes).There are several 'transfer in' options from the north and west which may have benefit to the Trent at low flows, though they may be broadly neutral for the lower Trent given the proposed transfers out to the south and east. We recognise that although our specific interests would not be adversely affected by transfer in from the north and west, the principle that the possibility of adverse effects in donor regions being considered is an important one. Whilst we recognise the wider strategic benefit of such movement, it would appear that there is no framework in which the balance of these transfers is prescribed and therefore we cannot determine the effect on lower Trent low flows – it could be positive, neutral or negative. We are therefore concerned regarding this uncertainty in the draft plan, this being a comment on several plans not just Severn Trent's but is inevitably most important in STW's given the central strategic location and the dependency of the power sector as a whole on the middle/lower Trent.* | Please refer to Appendix A5 - Water Trading |
| RWE Generation UK | *We do not support a transfer sourced from water that would otherwise have contributed positively to low flows such as that being considered from Minworth since effluent currently contributes very significantly to low flows in the lower Trent and diversion could intensify our potential future low flow risks.* | Please refer to Appendix A5 - Water Trading |
| Sandstone Ridge Trust | *(This follows on from introduction outlining issues around the sandstone ridge) ... The Trust is pleased to note, therefore, that the draft Water Resources Management Plan acknowledges the adverse impacts of abstraction on the Aldford Brook and the need to reduce overall licensed quantity of abstraction. Table 4 of the WRM states that the "proposed solution will give us a more sustainable and flexible source of supply that will allow us to retain the ability to increase output to cope with short term increases in demand, but will restrict the long term output from the sources to more sustainable quantities". No details are given what this solution is.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| Sandstone Ridge Trust | *The Trust would like to see clarification what the proposed solution for low water flows in the Aldford Brook comprises.*<br>*Table 4 goes on to state that "current output from the Peckforton borehole group is constrained by raw water quality" - to which the proposed solution is "to install enhanced water treatment so that we can overcome the water quality constraints and deploy the peak licensed quantity to meet short term demand increases". It appears that there is no proposed treatment of the cause – just the symptoms. The cause of the poor water quality is not stated, but if similar to the problems in the Delamere groundwater management unit in the north of the Ridge, it is likely to be agricultural pollution (particularly nitrate and phosphate levels). Catchment management measures are proposed as solutions to protect drinking water supplies within Severn Trent's Water Resource Zones (figure 10), but not within the Peckforton Borehole Group.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| Sandstone Ridge Trust | *The Trust would like clarification of the cause for the poor water quality within the Peckforton Borehole Group, and, if it is due to agricultural pollution, consideration be given to introducing a catchment management scheme.*<br>*The Trust would be pleased to meet with Severn Trent Water to elaborate on these observations if it would be helpful.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| Thames Water | *Severn Trent Water has set out a wide range of measures to ensure a secure water supply for its customers including ambitious demand management proposa ls, with a step change in leakage, water efficiency and metering activity, and investment in new water sources. The demand management proposals include proactive and target ed metering through a "persuaded optant" strategy to achieve 100% meter coverage in the next 15 years. The draft Plan also sets out the need to develop new supply options including consideration of a transfer from Vyrnwy reservoir as a cost effective solution for the Strategic Grid Zone, subject to the availability of this water. We welcome these proposals, and would be happy to work with Severn Trent to share our learning and experience from implementation of a large scale household metering programme.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |

| Stakeholder | Comment | Our Response |
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| Thames Water | *Thames Water also has a significant water resources challenge and has developed its draft Water Resources Management Plan over an 80 year time horizon to ensure we can continue to provide a secure, resilient, affordable and sustainable water supply to our customers in the long term. In developing our draft Plan we have examined a wide range of feasible demand and supply options, including raw water transfers, and using third parties where appropriate. Thames Water has a long history of trading with third parties within and outside its area, and has been in active discussion with Severn Trent Water to discuss the potential to transfer water from Severn Trent Water's area to our area. Such a transfer would benefit not only our customers but potentially those in the wider South East region too. We are keen to continue discussing future trading opportunities with Severn Trent Water (and other trading partners) and on that basis our comments on Severn Trent Water's draft Plan focus on its ability to support a secure, sustainable and resilient water trade.* | Please refer to Appendix A5 - Water Trading |
| Thames Water | *Severn Trent Water's proposals for demand management appear to be the foundation of its draft Plan and we assume that the successful delivery of these measures will underpin the amount of water resource that would be available to transfer to other regions. Therefore, to support our ongoing trading discussions, we would like further information on the confidence assessment undertaken of the deliverability of its demand-side and supply-side proposals, including its contingency plans if the proposals are not delivered in the timeframe or do not secure the assumed demand reduction benefits.* | Please refer to Appendix A5 - Water Trading & Appendix A6 - Water Supply Options |
| Thames Water | *Severn Trent Water's proposals for demand management appear to be the foundation of its draft Plan and we assume that the successful delivery of these measures will underpin the amount of water resource that would be available to transfer to other regions. Therefore, to support our ongoing trading discussions, we would like further information on the confidence assessment undertaken of the deliverability of its demand-side and supply-side proposals, including its contingency plans if the proposals are not delivered in the timeframe or do not secure the assumed demand reduction benefits.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| Thames Water | *We note that Severn Trent Water's draft Plan extends over a 25 year period. The trading opportunities we have discussed to date with Severn Trent Water extend over a significantly longer time period than 25 years, to ensure Thames Water can plan to deliver a resilient, long-term supply for its customers and those in the South East. A water transfer of the scope and scale of the option we have been discussing is a major supply scheme, and Thames Water needs to be confident that it would have sufficient time to replace it with an alternative if the transfer were to end. We would expect any water trade agreement that we might enter into with Severn Trent would be for significantly longer than 25 years given the lead time required to develop new strategic resource options. Therefore we would like further information to explain the basis for proposing future water trades in the longer term, given the potential long-term supply demand difficulties that Severn Trent also face. This will give Thames Water confidence and assurance of the proposed trading options being promoted.* | Please refer to Appendix A5 - Water Trading |
| Uniper | *We are neutral with respect to much of the dWRMP19 content.*<br>*However, we do not support measures that would have the effect of reducing low flows in the river Trent at Ratcliffe or CDC since such measures would increase the severity and frequency of potential future additional licence constraints (HOFs) with the potential to:*<br>*• constrain further the operation of water-dependent power plant and*<br>*• put further at risk the UK security of electricity supply by preventing the power plant at Ratcliff and CDC from delivering commitments under the capacity market*<br>*Such measures include transfers from the river Trent upstream of either site and also diversions of effluent streams that otherwise would have entered the Trent upstream of the sites, such as those proposed at Minworth STW.* | Please refer to Appendix A5 - Water Trading |

| Stakeholder | Comment | Our Response |
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| Uniper | *Conversely, we support measures that either increase flows at low flow or have the potential to increase flow at low flows at Ratcliffe and CDC since these could offer new means of managing potential future constraints at low flows (subject to commercial considerations). This could include trading of physical water, or water rights, or water allocation associated with water rights in some future water resource management regime. We are therefore generally supportive of the principle of new storage capacity or of measures which would allow or increase the use of the storage capacity which could benefit downstream users.* | Please refer to Appendix A5 - Water Trading |
| Uniper | *We are also in general supportive of transfers into the Trent upstream of Ratcliffe and CDC that would operate at low flows on the Trent (either directly or through high flow only transfer schemes linked to storage and release schemes).* | Please refer to Appendix A5 - Water Trading |
| Uniper | *We note that STW are in discussions with other water companies regarding both transfers into and out of region which would have the effect of moving water into the region from the north and west and out of the region to the south and east (eg Fig12). Whilst recognising the wider strategic benefit of such movement, it would appear that there is no framework in which the balance of these transfers is prescribed and therefore we cannot determine the effect on lower Trent low flows – it could be positive, neutral or negative. We are therefore concerned regarding this uncertainty in the draft plan.* | Please refer to Appendix A5 - Water Trading |
| Worcestershire Wildlife Trust | ***A1. Companies commit to addressing their pressures on the environment, including contributing towards ensuring 75% of water bodies achieve 'good' status by 2027, as required by the WFD.***<br><br>*The dWRMP states Severn Trent intend to continue the ongoing programme of restoring sustainable abstraction (RSA) and build on the extensive environmental impact investigations being carried out in AMP6. For this dWRMP, the RSA implications are that Severn Trent need to reduce abstraction at a number of sources by up to 69Ml/d over the next ten years [Main, p12].*<br><br>*The dWRMP includes short and long-term measures to offset the environmental impacts of these abstractions and to help the associated water bodies achieve WFD objectives. Short term - localised environmental protection coupled with leakage and demand management which is good. [Main, p21]*<br><br>*Severn Trent has an established CSR programme with staff actively supporting local charities such as the Wildlife Trusts to deliver practical projects for the environment and work towards 'good' status for the water bodies in its area. For example Severn Trent has worked with Warwickshire Wildlife Trust for a number of years and in 2017 delivered 9 'Wild Work Days' with its staff, contributing 385 hours of volunteer time towards environmental improvements. This approach should be commended and the Wildlife Trusts looking forward to growing this partnership in the coming years.* | We note and welcome that Worcestershire Wildlife Trust is supportive of our approach on RSA, and other aspects of the work we address in our environmental/CSR programmes more generally. Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) for more information. |

| Stakeholder | Comment | Our Response |
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| Worcestershire Wildlife Trust | ***A2. Companies significantly extend investment in catchment management supporting delivery of water resources and wastewater outcomes. Companies show leadership in the Catchment Based Approach and commit to working with partners, sharing best practice and to valuing the benefits of this approach to water quality, water resources, flood risk, carbon and recreation.***<br><br>*The dWRMP states that catchment management plays a critical role in supporting Severn Trent's supply/demand plan by helping ensure reliable and sustainable output from existing sources [Main, p10]. It states that Severn Trent will continue their 27 current catchment schemes (from AMP6) and add 8 new catchment schemes. Schemes will help protect current sources from water quality risks, ensure no deterioration, help improve resilience of assets and generate wider environmental benefits.*<br><br>*This approach should be commended; however it is disappointing that the partnership with the West Midlands Wildlife Trusts delivering landowner advice for the reduction in metaldehyde impact and administration of the Severn Trent Environmental Protection Scheme (STEPS) scheme across seven catchments in AMP 6 is not referenced alongside the other partnership in place. The Wildlife Trusts provide a cost effective and reliable partnership solution to delivering this area of Severn Trent's work and further opportunities to build on this partnership should be explored in AMP 7.*<br><br>*We welcome the continuation of the STEPS - offering capital grants to farmers for works which help reduce diffuse pollution e.g. installation of biobeds/biofilters [Main, p37] and the further roll out of FaPCW (Farmers as Producers of Clean Water) - provides info and pays farmers for producing clean run-off [Main, p37].*<br>*The Worcestershire Middle Severn, Shropshire Middle Severn and the Teme catchment partnerships work closely with Severn Trent technical managers and agricultural advisors and further opportunities to build on this across the catchment partnerships should be explored in AMP 7.* | Please refer to Appendix B1 - Biodiversity & Catchments |
| Worcestershire Wildlife Trust | ***A3. Companies advocate the use of regulatory measures when voluntary measures are insufficient to protect water sources and customer interests (e.g. controls on agricultural pollution).***<br><br>*Severn Trent should do more to advocate the use of regulation where voluntary measures are insufficient to protect water and customer interests. The long-term sustainability of water supply, the natural environment and therefore the human population relies on ensuring that safeguards are in place to protect this resource for future generations. Overlooking the need for ensuring that water resources are effectively managed for short term gain is unsustainable.* | Please refer to Appendix B1 - Biodiversity & Catchments |
| Worcestershire Wildlife Trust | ***A4. Companies set out how they will deliver and report on long term resilience and the resilience of the ecosystems they rely on to operate, in their investment planning***.<br><br>*Severn Trent's drought assessment concludes that their raw water supplies are already resilient to a 1 in 200 year drought event and therefore do not need to develop new resources in order to meet drought resilience[Main, p11]. However, Severn Trent should place more emphasis on measuring the resilience of natural capital within its area, and financial contribution that the natural environment plays in supporting Severn Trent's business. By developing a greater understanding of the ecosystems that support Severn Trent (e.g. wetlands for storing water, woodlands for intercepting run off and reducing flood risk, etc.), direct comparisons could be made between the value of investing in natural capital to provide long term sustainable solutions, as opposed to short term capital infrastructure investments which are costly to maintain and would require replacement in the longer term.* | Please refer to Appendix B1 - Biodiversity & Catchments |

| Stakeholder | Comment | Our Response |
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| Worcestershire Wildlife Trust | ***A5. Companies commit to assessing the Natural Capital they depend on with the intent to grow it and to integrate it into decision making.***<br><br>*Severn Trent should assess the natural capital within its catchments to recognise the value the natural environment plays to its business and the communities it serves. Natural capital can be defined as the world's stocks of natural assets which include geology, soil, air, water and all living things. It is from this natural capital that humans derive a wide range of services, often called ecosystem services, which make human life possible. In Severn Trent's case the ecosystem services include things like flood prevention and water purification, which if degraded would cost Severn Trent money in replacing them with artificial alternatives.*<br><br>*Once the natural capital value of the area was calculated, further assessments could be made on the added value which could be achieved by growing the natural capital further in key locations. For example, by planting trees or reedbeds in targeted areas of catchments, Severn Trent may be able to reduce its existing expenditure on flood prevention and sewage treatment as a result of slowing the flow natural purification measures elsewhere.* | Please refer to Appendix B1 - Biodiversity & Catchments |
| Worcestershire Wildlife Trust | ***C1. Companies significantly scale up their demand management programmes to increase resilience, defaulting to equal investment in demand and supply unless they can justify why not. This includes ambitious water efficiency measures, both products and behaviour change engagement, increasing overall metering of households as well as the proportion of smart meters and reducing leakage.***<br><br>*Severn Trent is clearly responding to stakeholder feedback that it should be ambitious in leakage and demand management thinking [Main, p8, p42]. The success of leakage and demand management strategies over past 10 years mean that it has a good platform for ambitious targets [Main, p9].*<br><br>*There is a real opportunity to deliver outcomes for behaviour change engagement as part of Worcestershire and Shropshire Wildlife Trust's Living Landscape schemes; Severn and Avon Vales, Forest of Feckenham; Teme Valle; Meres and Mosses. This area of Severn Trent's business is not as effective at working in partnership in comparison to the Catchment Based Approach team and is therefore not currently benefiting from the added value that organisations like Worcestershire and Shropshire Wildlife Trusts could bring to this work.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| Worcestershire Wildlife Trust | ***C2. Companies ensure no overall increase in the amount of water abstracted from rivers and groundwater despite increases in population and climate change – a water neutral PR19.***<br><br>*The dWRMP highlights a major focus on leakage reduction and demand management which is good news, but acknowledges that Severn Trent will still need to find additional resources. This is a concern and Severn Trent should strive to be more innovative and ambitious in finding alternative solutions to this problem, rather than resorting to further abstraction to meet demand. Severn Trent should ensure that there is no overall increase in the amount of water abstracted from rivers and groundwater – a water neutral PR19.*<br>*Well-formed plan regarding controlling leakages and metering therefore reducing the need for abstraction and maintaining healthy groundwater levels helping reduce usage in homes, but businesses are not mentioned?*<br>*Leakage is estimated to plateau at approximately 350 ML/day after acoustic monitoring installations to identify leaks. No further efforts are apparently possible after this threshold quantity* | Please refer to Appendix A2 - Leakage |

| Stakeholder | Comment | Our Response |
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| Worcestershire Wildlife Trust | ***C3. Companies increase the availability, promotion and take-up of social tariffs and efficiency retrofit to protect vulnerable customers and all those struggling to afford their bills – combining these with water efficiency measures to help manage bills down.***<br><br>*The dWRMP outlines Severn Trent's ambition to extend the home check programme to engage directly with social housing providers to help their tenants save water. This should help more financially vulnerable customers by making their water, and potentially their energy bills, more affordable [Main, p19] and this is welcomed.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| Worcestershire Wildlife Trust | ***C4. Companies develop plans to incentivise customers and communities to reduce consumption during dry periods and in catchments most at risk from abstraction – setting out specific and ambitious programmes to manage demand during periods of peak use.***<br><br>*The dWRMP makes no reference to incentivising customers or communities to reduce consumption to help support with water resource availability. Faced with challenges such as the need to find alternatives to further abstraction, Severn Trent should be ambitiously exploring innovative approaches to enabling its customers to become part of the solution.*<br><br>*In rural catchments there are further opportunities to incentivise landowners with payments for services that deliver public good. For example the cost of incentivising a farmer for reducing their inputs into river is cheaper than the cost of purification work further downstream. Likewise, natural flood management when used in conjunction with other measures is more cost effective than hard engineering. Severn Trent should be leading the way in exploring effective mechanisms for treating problems at source rather than investing more money in retrofitting the solution.* | Please refer to Appendix A5 - Water Trading |
| Worcestershire Wildlife Trust | ***D1. Companies commit to addressing abstraction where it is preventing achievement of 'good' status or poses a risk of deterioration.***<br><br>*Severn Trent plan to continue the ongoing programme of restoring sustainable abstraction (RSA) and build on the extensive environmental impact investigations being carried out in AMP6. For this dWRMP, the RSA implications are that they need to reduce abstraction at a number of sources by up to 69Ml/d over the next ten years [Main, p11]. The dWRMP outlines ambitious leakage targets driven by the need to generate more headroom to accommodate the impacts of climate change uncertainty, and to provide a significant contribution to offsetting the AMP8 supply / demand impacts of preventing environmental deterioration to achieve Water Framework Directive objectives [Main, p17].*<br><br>*Severn Trent has identified sites where abstraction needs to be reduced due to environmental issues and also sites where abstraction licences are not fully utilised but where, if they were, the environment would not be impacted. This should be welcomed.*<br><br>*Formal changes to abstraction licences will not come into effect until end of AMP8 to give time to deliver necessary new infrastructure [Main, p23]. Largely groundwater sources are at risk so Severn Trent is focusing on making more use of surface water sources of supply which makes sense if undertaken with proper consideration of all impacts. In short term (2020-25) Severn Trent's schemes to make better use of existing, sustainable sources and enhancing ability to deploy this water. Longer term schemes are more uncertain and it is not committed to investing in their delivery at this stage. This may put Severn Trent at risk of having to use unsustainable sources if/when drought puts additional pressure on system. Therefore a more structured plan should be considered for this scenario.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| Worcestershire Wildlife Trust | ***D2. Companies use mechanisms such as the Abstraction Incentive Mechanism (AIM) to reduce abstraction pressure around sensitive sources.***<br><br>*Severn Trent is exploring whether it can use AIM as an innovative way of helping prevent future deterioration. It is proposing to adapt the approach and set abstraction performance targets based on maintaining recent actual rates of abstraction [Main, p33]. This should be welcomed.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |

| Stakeholder | Comment | Our Response |
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| Worcestershire Wildlife Trust | ***D3. Companies give material consideration to the value of natural capital and benefits of water left in the environment within water resource options appraisals.***<br><br>*Severn Trent should assess the natural capital within its catchments to recognise the value the natural environment plays to its business and the communities it serves. Natural capital can be defined as the world's stocks of natural assets which include geology, soil, air, water and all living things. It is from this natural capital that humans derive a wide range of services, often called ecosystem services, which make human life possible. In Severn Trent's case the ecosystem services include things like flood prevention and water purification, which if degraded would cost Severn Trent money in replacing them with artificial alternatives.*<br><br>*Once the natural capital value of the area was calculated, further assessments could be made on the added value which could be achieved by growing the natural capital further in key locations. For example, by planting trees or reedbeds in targeted areas of catchments, Severn Trent may be able to reduce its existing expenditure on flood prevention and sewage treatment as a result of slowing the flow natural purification measures elsewhere.* | Please refer to Appendix B1 - Biodiversity & Catchments |
| Worcestershire Wildlife Trust | ***D4. Companies ensure that, where new water supply options are considered they are transparent about environmental risk and include mitigation measures to support good status.***<br><br>*The dWRMP includes a case study of mitigation work done on Battlefield Brook (combination of licence reductions and environmental management). Severn Trent propose to extend this approach on a much larger scale, focussing on water bodies with the greatest pressures [Main, p34]. However, there is no transparent process in place to calculate the extent of mitigation which is required following the impact of Severn Trent's operations. During a consultation event the Battlefield Brook was heralded as an excellent example of mitigation by Severn Trent, however staff could not explain the rationale behind the decision on what length of river enhancement was an appropriate mitigation for the impact of their work. Severn Trent should work with relevant organisations to develop a clear and transparent matrix that enables it to calculate the level of mitigation required based on the level of impact of a proposed operation, prior to decisions being made.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| Worcestershire Wildlife Trust | *Watercourse Effluent Transportation -*<br>*STW transport wastewater (untreated or partially treated) from treatment facilities into open watercourses (rivers or canals) before re-abstracting this water further downstream where treatment capacity is increased. Therefore, technically polluting watercourses, albeit with a dilution factor, but it is hardly believable that STW can re-abstract the exact quantity and concentration of pollutants in downstream treatment facilities, thus having an environmental impact via nutrient loading between inflow and outflow and also thereafter.*<br>*There may be an issue with abstraction and discharge licenses from the Environment Agency allowing for this to occur.* | The preferred programme of options in our draft WRMP included one option that involved increasing treated wastewater transportation in a watercourse for subsequent downstream abstraction. Following the consultation, we have modified the plan to exclude the watercourse effluent transportation part of that option.<br>In the event that opportunities are identified to augment river flows using treated wastewater from our treatment facilities, these would only be progressed if we can demonstrate that there would be no detrimental impact to the watercourse concerned. Any new wastewater effluent discharge would need to be permitted by the EA, and the necessary permit would only be issued if the option was compliant with Water Framework Directive No Deterioration requirements. Effluent discharges are required to be treated to a very high standard prior to discharge to achieve this compliance. |
| Worcestershire Wildlife Trust | *"Our aim is to balance the risk to the environment with the need to preserve customers security of supply"*<br>*The above statement, displayed at the meeting of April 12, indicates a disregard for environmental consideration or at the very least, the equal prioritisation of customer service and environment care which is a risk that a private company has the prerogative of making, however, shows a lack of consideration for the vested interests of other parties.* | As a statutory water undertaker, we have legal obligations to provide customers with secure supplies of water. However, we also have many statutory environmental obligations that govern our operations and long term planning. The proposals in our WRMP accommodate these different obligations.<br>Please refer to Appendix A1 - Customers & Engagement for more information. |

| Stakeholder | Comment | Our Response |
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| Worcestershire Wildlife Trust | ***Biodiversity Concerns***<br><br>*'Water Trading' raises some concerns regarding non-native invasive species and their associated diseases being transported between regions, such as crayfish plague. Also, STW appear not to have considered the impacts of water going directly from one water course to another and the subsequent risk to wildlife through differences in temperature, mineral content and pH. Concerns are also raised of the impact of differences in salinity between the water supplies. PR23 places responsibility on the recipient company in a bulk water transfer in regards to the deterioration of a WFD waterbody.* | Please refer to Appendix A5 - Water Trading |
| Worcestershire Wildlife Trust | ***Landowners***<br><br>*The contingencies for landowners in the Drought Strategy section regarding managing abstractions are not set out.*<br>*Nothing within the document sets out the benefits of improving soil health for the benefit of natural flood management in periods of drought. Additionally, improved soil biodiversity would improve the species diversity of predators of these species such as birds.*<br>*STEPS has the potential to assist farmers in providing water retention items related to drainage in order to mitigate low base flow levels and improve drought tolerance, however this percentage of resources may be too small to focus on and there is no specific mention of engaging wider land users including farmers in the plan thus far.* | We acknowledge your comments on the Drought strategy and soil health. These are not specifically addressed by the WRMP but we have noted them for future plans. For more information on drought please refer to our Drought Plan.<br><br>Further information regarding consultation responses associated with the STEPS programme is available in Appendix B1 - Biodiversity & Catchments. |
| WWF | ***Demand management***<br><br>*In the face of increasing pressures on water resources, we must make the best use of the water we take from the environment, ensuring it is not lost or wasted. WWF expect to see WRMPs that not only prioritise demand management options over major new supply schemes, but also provide a step-change in both scale and ambition.*<br><br>*It's heartening to hear that Severn Trent Water will 'prioritise demand management and propose a step-change in leakage, water efficiency and metering'. However, we think in some areas the proposed plan could go further and faster. In particular:* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| WWF | ***Demand management***<br><br>*Whilst we acknowledge the PCC targets set by Severn Trent are stretching compared to previous WRMPs, we want to see more ambitious targets on PCC of 100 litres by 2025, and 75 litres by 2050. Only with serious targets can the water industry drive forward with serious ambition, searching out innovative solutions and breaking from 'business as usual' planning.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| WWF | ***Demand management***<br><br>*We support Severn Trent Water's ambition to scale-up metering through a 'persuaded optant' strategy. We also support Severn Trent Water exploring the possibility of being designated a seriously water stressed area and so be able to implement compulsory metering. As long as appropriate tariffs and schemes are in place to ensure those in vulnerable circumstances are protected from disproportionate bills, water metering is the fairest way to pay for water. Water meters are an important part of the demand management mix, not only assisting with leak detection and providing a corner stone to water efficiency work, but with smarter technology also offering the potential for long-term, targeted engagement with customers.* | Please refer to Appendix A3 Demand Management – metering & water efficiency |

| Stakeholder | Comment | Our Response |
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| WWF | ***Demand management***<br><br>*Severn Trent Water mention exploring smarter metering technologies in the plan, but make no commitment on this front. To maximise the longer-term savings achievable through scaling-up metering, it is essential that the meters being installed are as smart as possible – with the ability to relay information not only to the water company, but also the customer. Severn Trent acknowledge that 'in the longer term, our education and behavioural change activities will become an increasingly important demand management measure', and smart metering can play a key role in this engagement mix going forward.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| WWF | ***Demand management***<br><br>*We are pleased to see Severn Trent Water taking up Ofwat's challenge of reducing leakage by 15% during AMP7, and hope to see a continuation or improvement on this level of reduction moving into the future.* | Please refer to Appendix A2 - Leakage |
| WWF | ***Demand management***<br><br>*We would like to see more stretching delivery targets for Home Checks – water efficiency home visit retrofits. The Home Checks carried out by Severn Trent Water are based upon industry best practice. The numbers of home visit retrofits being carried out would have been unimaginable just a few years ago. However, the scale remains relatively modest compared to the size of the patch. How much water would be saved if every property received a Home Checks?* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| WWF | ***Demand management***<br><br>*We'd like to see Severn Trent Water commit to continuing work with developers to ensure new developments are water efficient.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| WWF | ***Demand management***<br><br>*We welcome Severn Trent Water' commitment to testing and trialling demand-side options such as rainwater and grey water harvesting (Appendix D). However, we note that these reuse options have been removed from the list because there are apparently no commercially viable retrofit options and new build solutions can only be undertaken by developers. We would be interested to explore these issues further with Severn Trent.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| WWF | ***Supply development***<br><br>*Whilst we want companies to prioritise investment in demand measures which leave more water in the environment, we recognise that long-term development of sources is likely to be needed to remove or offset the environmental impacts of certain abstractions, prevent future deterioration of water bodies, and maintain security of supply within the context of future climate uncertainty.*<br>*We understand that new supply options have been assessed for their environmental impacts through a Strategic Environmental Assessment (SEA), and that where this screening identified options with unacceptable environmental effects these were rejected from the options list.*<br>*Should there be any notable changes between the draft and final plan with respect to the preferred supply side options, in particular around proposed inter-company transfers, we urge that further stakeholder and customer engagement is undertaken.* | Please refer to Appendix A6 - Water Supply Options |
| WWF | ***Supply development***<br><br>*We want Severn Trent Water to commit in its final plan that all the supply side water resource schemes progressed in AMP7 will deliver a net gain in biodiversity and for the wider environment.* | Please refer to Appendix B1 - Biodiversity & Catchments |
| WWF | ***Addressing unsustainable abstraction***<br><br>*Addressing existing unsustainable abstraction and its impact on the environment is essential.*<br>*• We are pleased to see Severn Trent Water's continuing commitment to restoring sustainable abstraction (RSA), with the proposed plan including measures to manage this environmental risk in the short term, and longer term investment to reconfigure the water supply and abstraction system where necessary.* | We appreciate the support for our overall approach to addressing our restoring sustainable abstraction from WWF. |
| WWF | ***Addressing unsustainable abstraction***<br><br>*We recognise that Severn Trent Water has facilitated a downward trend in water into supply against a back drop of a steadily growing regional population. However, we would like to see Severn Trent Water set an ambitious target for reducing the amount of water abstracted from the environment.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |

| Stakeholder | Comment | Our Response |
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| WWF | ***Addressing unsustainable abstraction***<br><br>*We want Severn Trent Water to address any RSA sustainability reduction actions linked to known impacts on protected conservation sites and WFD water body status as soon as possible –within AMP7 where feasible.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| WWF | ***Addressing unsustainable abstraction***<br><br>*We are pleased that Severn Trent Water are exploring whether they can use Abstraction Incentive Mechanism (AIM) to help prevent future deterioration, and would like to understand how this will be built on in AMP7.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |
| WWF | ***Catchment Management***<br><br>*We want to see water companies as active players in advocating and encouraging good land management.*<br>*We are pleased that Severn Trent Water are continuing and expanding their catchment management work.*<br>*We would like Severn Trent Water to ensure they are taking a holistic approach to catchment management, rather than focussing on one chemical or issue* | Please refer to Appendix B1 - Biodiversity & Catchments |
| WWF | ***Natural Capital***<br><br>*We would like to see water companies give material consideration to the value of natural capital and benefits of water left in the environment within water resource options appraisals.*<br>*We would like to see commitment from Severn Trent Water to explore the natural capital approach, with determination to apply this to their work as soon as possible.* | Please refer to Appendix B1 - Biodiversity & Catchments |
| WWF | ***Regional water resources planning***<br><br>*We support multi-sector, regional water resources planning: it provides more integrated solutions with the potential for wider and multi-sector benefits. We welcome Severn Trent Water's efforts to engage in regional water resources planning through Water Resources East (WRE).*<br>*We'd like to see Severn Trent Water commit to participating in and promoting national and regional-scale water resources planning which works with other major water-using sectors to assess future challenges and develop solutions. This planning should be guided by recommendations from the Environment Agency's WRMP24 initiative.* | Please refer to Appendix A5 - Water Trading |
| WWT | ***A1. Companies commit to addressing their pressures on the environment, including contributing towards ensuring 75% of water bodies achieve 'good' status by 2027, as required by the WFD.***<br><br>*The dWRMP states Severn Trent intend to continue the ongoing programme of restoring sustainable abstraction (RSA) and build on the extensive environmental impact investigations being carried out in AMP6. For this dWRMP, the RSA implications are that Severn Trent need to reduce abstraction at a number of sources by up to 69Ml/d over the next ten years [Main, p12].*<br><br>*The dWRMP includes short and long term measures to offset the environmental impacts of these abstractions and to help the associated water bodies achieve WFD objectives. Short term – localised environmental protection coupled with leakage and demand management which is good. [Main, p21] Severn Trent has an established CSR programme with staff actively supporting local charities such as Warwickshire Wildlife Trust to deliver practical projects for the environment and work towards 'good' status for the water bodies in its area. In Warwickshire we have worked in partnership with Severn Trent for a number of years and in 2017 delivered 9 'Wild Work Days' with its staff, contributing 385 hours of volunteer time contributing towards water bodies moving towards good status. This approach should be commended and Warwickshire Wildlife Trust is looking forward to growing this partnership in the coming years.* | Thank you for your comment. We note and welcome that Warwickshire Wildlife Trust is supportive of our approach on RSA, and other aspects of the work we address in our environmental/CSR programmes more generally. |

| Stakeholder | Comment | Our Response |
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| WWT | ***A2. Companies significantly extend investment in catchment management supporting delivery of water resources and wastewater outcomes. Companies show leadership in the Catchment Based Approach and commit to working with partners, sharing best practice and to valuing the benefits of this approach to water quality, water resources, flood risk, carbon and recreation.***<br><br>*The dWRMP states that catchment management plays a critical role in supporting Severn Trent's supply/demand plan by helping ensure reliable and sustainable output from existing sources [Main,p10]. It states that Severn Trent will continue their 27 current catchment schemes (from AMP6) and add 8 new catchment schemes. Schemes will help protect current sources from water quality risks, ensure no deterioration, help improve resilience of assets and generate wider environmental benefits. This approach should be commended; however it is disappointing that the partnership with the West Midlands Wildlife Trusts delivering landowner advice for the reduction in metaldehyde impact and implementation of the STEPS scheme across seven catchments in AMP 6 is not referenced alongside the other partnerships which are documented. The Wildlife Trusts provide a cost effective and reliable partnership solution to delivering this area of Severn Trent's work and further opportunities to grow this partnership should be explored in AMP 7. Warwickshire Wildlife Trust welcome the continuation of the STEPS (Severn Trent Environmental Protection Scheme) - offering capital grants to farmers for works which help reduce diffuse pollution e.g. installation of biobeds/biofilters [Main, p37] and the further roll out of FaPCW (Farmers as Producers of Clean Water) - provides info and pays farmers for producing clean run-off [Main, p37]. Severn Trent has an opportunity to pilot new methods of land owner advice as part of this Water Resources Management Plan. For example, the River Sherborne (which runs through Coventry right under Severn Trent's headquarters) has its headwaters in rural areas to the north west of the city. The upper reaches of this catchment could provide a great case study to test a different approach to the current model which Severn Trent operates. This could involve providing holistic guidance to a landowner on their legal obligations and the added value above and beyond that would benefit their business. This could lead to changes in management practices that would benefit water quality and reduce Severn Trent treatment costs further downstream.* | Please refer to Appendix B1 - Biodiversity & Catchments |
| WWT | ***A3. Companies advocate the use of regulatory measures when voluntary measures are insufficient to protect water sources and customer interests (e.g. controls on agricultural pollution).***<br><br>*Severn Trent should do more to advocate the use of regulation where voluntary measures are insufficient to protect water and customer interests. The long term sustainability of water supply, the natural environment and therefore the human population relies on ensuring that safeguards are in place to protect this resource for future generations. Overlooking the need for ensuring that water resources are effectively managed for short term gain is unsustainable. A good example of this is the new farming near water legislation. The new requirements pose strict regulations on landowners to ensure they are minimising their impact on the water course. However, many farmers are unaware or unsure of the new regulations and how they relate to their land. Severn Trent could play a more active role in supporting farmers to comply with legislation, help with interpretation of the regulations and offer advice and guidance on what is required.* | Please refer to Appendix B1 - Biodiversity & Catchments |
| WWT | ***A4. Companies set out how they will deliver and report on long term resilience and the resilience of the ecosystems they rely on to operate, in their investment planning****.*<br><br>*Severn Trent's drought assessment concludes that their raw water supplies are already resilient to a 1 in 200 year drought event and therefore do not need to develop new resources in order to meet drought resilience[Main, p11]. However, Severn Trent should place more emphasis on measuring the resilience of natural capital within its area, and financial contribution that the natural environment plays in supporting Severn Trent's business. By developing a greater understanding of the ecosystems that support Severn Trent (e.g. wetlands for storing water, woodlands for intercepting run off and reducing flood risk, etc.), direct comparisons could be made between the value of investing in natural capital to provide long term sustainable solutions, as opposed to short term capital infrastructure investments which are costly to maintain and would require replacement in the longer term.* | Please refer to Appendix B1 - Biodiversity & Catchments |

| Stakeholder | Comment | Our Response |
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| WWT | ***A5. Companies commit to assessing the Natural Capital they depend on with the intent to grow it and to integrate it into decision making.***<br><br>*Severn Trent should assess the natural capital within its catchments to recognise the value the natural environment plays to its business and the communities it serves. Natural capital can be defined as the world's stocks of natural assets which include geology, soil, air, water and all living things. It is from this natural capital that humans derive a wide range of services, often called ecosystem services, which make human life possible. In Severn Trent's case the ecosystem services include things like flood prevention and water purification, which if degraded would cost Severn Trent money in replacing them with artificial alternatives. Once the natural capital value of the area was calculated, further assessments could be made on the added value which could be achieved by growing the natural capital further in key locations. For example, by planting trees or reedbeds in targeted areas of catchments, Severn Trent may be able to reduce its existing expenditure on flood prevention and sewage treatment as a result of slowing the flow or natural purification measures elsewhere.* | Please refer to Appendix B1 - Biodiversity & Catchments |
| WWT | ***C1. Companies significantly scale up their demand management programmes to increase resilience, defaulting to equal investment in demand and supply unless they can justify why not. This includes ambitious water efficiency measures, both products and behaviour change engagement, increasing overall metering of households as well as the proportion of smart meters and reducing leakage.***<br><br>*Severn Trent is clearly responding to stakeholder feedback that it should be ambitious in leakage and demand management thinking [Main, p8, p42]. The success of leakage and demand management strategies over past 10 years mean that it has a good platform for ambitious targets [Main, p9]. This ambition compares favourably against other industry bodies. There is a real opportunity to deliver outcomes for behaviour change engagement as part of Warwickshire Wildlife Trust's developing River Sherborne Valley Living Landscape scheme. This scheme will focus on tackling behaviour change with communities in Coventry (a key customer base and the location of Severn Trent's HQ). It will utilise the 10 Point Plan that was developed in partnership with Severn Trent and the Environment Agency to reduce human impact on the water course. There is an opportunity for Severn Trent to become a major partner in this multi-million pound 5 year scheme, which would enable shared outcomes to deliver a greater impact than operating in isolation. This area of Severn Trent's business is not as effective at working in partnership in comparison to the Catchment Based Approach team and is therefore not currently benefiting from the added value that organisations like Warwickshire Wildlife Trust could bring to this work.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| WWT | ***C2. Companies ensure no overall increase in the amount of water abstracted from rivers and groundwater despite increases in population and climate change – a water neutral PR19.***<br><br>*The dWRMP highlights a major focus on leakage reduction and demand management which is good news, but acknowledges that Severn Trent will still need to find additional resources. This is a concern and Severn Trent should strive to be more innovative and ambitious in finding alternative solutions to this problem, rather than resorting to further abstraction to meet demand. Severn Trent should ensure that there is no overall increase in the amount of water abstracted from rivers and groundwater – a water neutral PR19.* | Over the past ten years we have been able to supply the growing number of customers in our region without having to increase the total amount of water we put into supply. In fact, the long term downward trend in water into supply has been achieved against a backdrop of steadily growing regional population (refer to Figure 3, in Section 4 of our WRMP). Since the year 2000, the population of our region has grown by 0.5 million people, but over this same period the total amount of water we put into supply has fallen by 3%. We have achieved this in part by reducing leakage on our own network, and helping customers to reduce their own water consumption (Section 4 of our WRMP). We anticipate that these trends will continue and that our demand management solutions and leakage ambitions will continue to allow us to offset growth.<br>In 2015 we also managed to secure one of the largest abstraction rights trade in England and Wales. This has contributed to deferring some of the planned water resources options outlined in our PR14 plan (Section 4 of our WRMP). Our ambition is to maintain this level of water trading targets or improve on them.<br>Our plan focuses primarily on demand management, leakage reduction and increasing metering and trading. However, the scale of the challenge is such that, in order to maintain the same level of service, we are having to increase output from some of our more sustainable sources. This is to ensure that during hot weather events or droughts, we do not compromise security of supply. |

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| WWT | ***C2. Companies ensure no overall increase in the amount of water abstracted from rivers and groundwater despite increases in population and climate change – a water neutral PR19.***<br><br>*The dWRMP highlights a major focus on leakage reduction and demand management which is good news, but acknowledges that Severn Trent will still need to find additional resources. This is a concern and Severn Trent should strive to be more innovative and ambitious in finding alternative solutions to this problem, rather than resorting to further abstraction to meet demand. Severn Trent should ensure that there is no overall increase in the amount of water abstracted from rivers and groundwater – a water neutral PR19.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| WWT | ***C3. Companies increase the availability, promotion and take-up of social tariffs and efficiency retrofit to protect vulnerable customers and all those struggling to afford their bills – combining these with water efficiency measures to help manage bills down.***<br><br>*The dWRMP outlines Severn Trent's ambition to extend the home check programme to engage directly with social housing providers to help their tenants save water. This should help more financially vulnerable customers by making their water, and potentially their energy bills, more affordable [Main, p19] and this is welcomed.* | Please refer to Appendix A3 - Demand Management – metering & water efficiency |
| WWT | ***C4. Companies develop plans to incentivise customers and communities to reduce consumption during dry periods and in catchments most at risk from abstraction – setting out specific and ambitious programmes to manage demand during periods of peak use.***<br><br>*The dWRMP makes no reference to incentivising customers or communities to reduce consumption to help support with water resource availability. Faced with challenges such as the need to find alternatives to further abstraction, Severn Trent should be ambitiously exploring innovative approaches to enabling its customers to become part of the solution. In rural catchments there are further opportunities to incentivise landowners with payments for services that deliver public good. For example the cost of incentivising a farmer for reducing their inputs into river is cheaper than the cost of purification work further downstream. Likewise, natural flood management when used in conjunction with other measures is more cost effective than hard engineering. Severn Trent should be leading the way in exploring effective mechanisms for treating problems at source rather than investing more money in retrofitting the solution.* | Please refer to Appendix A5 - Water Trading |
| WWT | ***D1. Companies commit to addressing abstraction where it is preventing achievement of 'good' status or poses a risk of deterioration.***<br><br>*Severn Trent plan to continue the ongoing programme of restoring sustainable abstraction (RSA) and build on the extensive environmental impact investigations being carried out in AMP6. For this dWRMP, the RSA implications are that they need to reduce abstraction at a number of sources by up to 69Ml/d over the next ten years [Main, p11]. The dWRMP outlines ambitious leakage targets driven by the need to generate more headroom to accommodate the impacts of climate change uncertainty, and to provide a significant contribution to offsetting the AMP8 supply / demand impacts of preventing environmental deterioration to achieve Water Framework Directive objectives [Main, p17]. Severn Trent has identified sites where abstraction needs to be reduced due to environmental issues and also sites where abstraction licences are not fully utilised but where, if they were, the environment would not be impacted. This should be welcomed. Formal changes to abstraction licences will not come into effect until end of AMP8 to give time to deliver necessary new infrastructure [Main, p23]. Largely groundwater sources are at risk so Severn Trent is focusing on making more use of surface water sources of supply which makes sense if undertaken with proper consideration of all impacts. In short term (2020-25) Severn Trent's schemes to make better use of existing, sustainable sources and enhancing ability to deploy this water. Longer term schemes are more uncertain and it is not committed to investing in their delivery at this stage. This may put Severn Trent at risk of having to use unsustainable sources if/when drought puts additional pressure on system. Therefore a more structured plan should be considered for this scenario.* | We believe that the approach adopted in our WRMP will adequately protect waterbodies against the risk of deterioration occurring from unsustainable abstractions, both under normal conditions and under drought conditions. Our Drought Management Plan provides further details on how we will manage the risk of deterioration occurring from the use of our drought sources. Further details are provided in the appendix. This issue does not create a material change to our WRMP.<br>Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) for more information. |
| WWT | ***D2. Companies use mechanisms such as the Abstraction Incentive Mechanism (AIM) to reduce abstraction pressure around sensitive sources.***<br><br>*Severn Trent is exploring whether it can use AIM as an innovative way of helping prevent future deterioration. It is proposing to adapt the approach and set abstraction performance targets based on maintaining recent actual rates of abstraction [Main, p33]. This should be welcomed.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |

| Stakeholder | Comment | Our Response |
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| WWT | ***D3. Companies give material consideration to the value of natural capital and benefits of water left in the environment within water resource options appraisals.***<br><br>*Severn Trent should assess the natural capital within its catchments to recognise the value the natural environment plays to its business and the communities it serves. Natural capital can be defined as the world's stocks of natural assets which include geology, soil, air, water and all living things. It is from this natural capital that humans derive a wide range of services, often called ecosystem services, which make human life possible. In Severn Trent's case the ecosystem services include things like flood prevention and water purification, which if degraded would cost Severn Trent money in replacing them with artificial alternatives. Once the natural capital value of the area was calculated, further assessments could be made on the added value which could be achieved by growing the natural capital further in key locations. For example, by planting trees or reedbeds in targeted areas of catchments, Severn Trent may be able to reduce its existing expenditure on flood prevention and sewage treatment as a result of slowing the flow natural purification measures elsewhere.* | Please refer to Appendix B1 - Biodiversity & Catchments |
| WWT | ***D4. Companies ensure that, where new water supply options are considered they are transparent about environmental risk and include mitigation measures to support good status.***<br><br>*The dWRMP includes a case study of mitigation work done on Battlefield Brook (combination of licence reductions and environmental management). Severn Trent propose to extend this approach on a much larger scale, focussing on water bodies with the greatest pressures [Main, p34]. However, there is no transparent process in place to calculate the extent of mitigation which is required following the impact of Severn Trent's operations. During a consultation event the Battlefield Brook was heralded as an excellent example of mitigation by Severn Trent, however staff could not explain the rationale behind the decision on what length of river enhancement was an appropriate mitigation for the impact of their work. Severn Trent should work with relevant organisations to develop a clear and transparent matrix that enables it to calculate the level of mitigation required based on the level of impact of a proposed operation, prior to decisions being made.* | Please refer to Appendix A4 - Water Industry National Environment Programme (WINEP) |