APPENDIX G
Stakeholder Engagement

This appendix provides details of how Water Resources West has engaged with stakeholders in the development of its regional plan. It reports the detailed feedback received, and how that feedback has been used to shape the development of the draft plan. A total of 133 stakeholders participated in our emerging plan consultation workshops, and we had 33 detailed consultation responses. The appendix focuses on consultation on the emerging plan as this was the prior step to producing the draft plan. However a summary of earlier engagement activity is included in an annex.

Contents

G.1. Background to informal consultation on the emerging regional plan

Between 17 January and 27 February 2022, we sought the views of our customers and stakeholders on our Emerging Regional Water Resources Management Plan. The informal consultation was delivered via three virtual stakeholder workshops as well as our IdeaStream website and forum. We endeavoured to consult with a variety of regulators, NGOs, local authorities, non-potable water supply sectors (e.g. farming, energy and paper), businesses as well as customers throughout our region, to capture views from different types of stakeholders across the Water Resources West region.

This appendix has been synthesised to present the feedback received via:

- Water Resources West's IdeaStream consultation questions in Table 1
- Water Resources West's mailbox in Table 2
- Environment Agency's feedback from the Review of England's emerging regional water resources plans (Table 3)
- Water Resources West's stakeholder report (detailing the outcomes of workshops undertaken in Jan-Feb 2022) - Annex 1
- Water Resources West stakeholder engagement report from 2021 - Annex 2

The stakeholders who responded to our consultation or participated in our events are listed below (except individuals who responded in a customer capacity, whose anonymity is preserved):

Stakeholder type	*Entity*
Regulators	Drinking Water Inspectorate
	Environment Agency
	Natural Resources Wales
	Natural England
	Ofwat
Members of Parliament	Craig Williams MP (Cardiff North)
Local Authorities	Association of Greater Manchester Authorities
	Bromsgrove and Redditch Councils
	Ceredigion County Council
	Cheshire West and Chester Council
	Chorley Council
	Derbyshire County Council
	Derbyshire Dales District Council
	Erewash Borough Council
	Flintshire County Council
	Forest of Dean District Council
	Gloucestershire County Council
	Herefordshire Council
	Kinnerley Parish Council
	Knowsley Metropolitan Borough Council
	Lancashire County Council
	Leicestershire County Council
	Liverpool City Council
	Manchester City Council
	Meifod Community Council
	North Worcs Water Management (Bromsgrove council)
	Oxfordshire County Council
	Pendle Borough Council
	Ribble Valley Borough Council
	Shropshire Council
	Telford & Wrekin Council
	West Lancashire Borough Council

Stakeholder type	*Entity*
National Park Authorities	Brecon Beacons National Park Authority
	Lake District National Park Authority
	Pembrokeshire Coast National Park Authority
	Yorkshire Dales National Park Authority
Environmental or community groups and charities	Action with Communities in Cumbria
	Afonydd Cymru
	Blueprint for Water
	Canal & River Trust
	Friends of the Lake District
	Gloucestershire Wildlife Trust
	Halton Lune Hydro
	Keswick Flood Action Group
	Lancashire Wildlife Trust
	Lune Rivers Trust
	Mersey Rivers Trust
	Salford Friendly Anglers Society
	Severn Rivers Trust
	Trent Rivers Trust
	Waterwise
	Windermere Motor Boat Racing Club
	Wye and Usk Foundation
	Wyre Rivers Trust
Educational institutions	Cranfield University
	Newcastle University
Businesses	APEM Ltd
	Arqiva
	Atrepo
	Colliers
	Creative ITC
	ENEBIO Ltd
	Everflow Water
	Jacobs
	James Cropper Plc
	Lake District Estates Co. Ltd
	Lanxess Urethanes UK Ltd
	Middlemarch Environmental Ltd

Stakeholder type	*Entity*
	Mott MacDonald
	P. R. Gray
	Photonic Measurements
	Progressive Energy
	Ricardo Energy and Environment
	RWE
	Waterforte Consulting Limited
	Windermere Lake Cruises Limited
	Wood Group UK Ltd
Public services and organisations	Cumbria Fire & Rescue Service
	Cumbria Local Enterprise Partnership
	Port of Workington
	Strine Internal Drainage Board
Trade Associations	Chemical Industries Association
	Confederation of Paper Industries
	Country Land and Business Association (England and Wales)
	Energy UK
	Farmers' Union of Wales
	National Farmers Union
	Rainwater Management Association
Consumer bodies	Consumer Council for Water
Utility companies	Dwr Cymru Welsh Water
	National Grid
	South Staffs Water
	Thames Water
	Uniper
	Wessex Water

G.2. Responses to Water Resources West's IdeaStream consultation questions

There were nine responses received via our IdeaStream consultation page, the results of which are summarised below against each question.

Table 1. IdeaStream consultation feedback summary

Topic	Question	Response summary
Water transfers	Should we share water resources outside of the region to reflect national challenges?	The majority of individuals who gave feedback on this question agreed that sharing water between regions is acceptable and beneficial but that care must be taken to ensure any transfers wouldn't prejudice our region. However, a small number of respondents disagreed with transfers out of the region (particularly Severn to Thames Transfer) as they were not seen as a solution to the resilience issues in the south east.
	If yes, then what would you expect in terms of avoiding adverse economic, environmental, wellbeing, resilience or water quality impacts to the source area?	The majority of respondents expect that the source area should receive financial rewards for sharing the water with other regions. There was also an expectation that economic, environmental, wellbeing, resilience and water quality impacts should be balanced, recognising that there is always an element of risk in doing something, but that doing something to resolve the issue is better than doing nothing.
Environment	Should we adopt more environmentally sustainable water resource options at a higher overall cost? Proportionately how much additional cost would you consider acceptable?	The respondents had mixed views with regards to increasing the cost of water bills to adopt more environmentally sustainable water resource options. Most agreed that we should adopt more sustainable solutions at higher costs but that any increase should be the lowest possible needed to achieve the goal. Moreover, those who had a favourable view on paying more also expressed that water companies should be mindful of customers' affordability. An interesting point made was that the costs of adopting different environmentally sustainable water resources solutions should be presented alongside the cost of doing nothing, to compare the benefits and drawbacks in a transparent way. On the other hand, there were a few voices who disagreed with the concept of paying more for enhancing the environmental sustainability of our water resources and instead pleading for using less and recycling water.
	Do you consider an increase in water companies' customers' bills acceptable to support the delivery of our	Most respondents were supportive of increases in bills to deliver our regional plan's outcomes and ambitions for long-term environmental improvement. However, the

Topic	Question	Response summary
	plan and outcomes for long term environmental improvement (i.e. our environmental destination)? This includes a range of environmental measures to enhance and protect the environment, such as river restoration, natural flood management and activities that will bring multiple benefits. Annual water bills could increase by less than 50p to around £10 by 2050 depending on the scenario and assuming all other elements of the bill remain unchanged.	range of bill increases presented (50p-£10) and the dependency of this range to the scenario selected for the plan did not provide sufficient clarity for our respondents.
Levels of service	Water companies currently plan for temporary use bans to have a likelihood of being required once every • 40 years for South Staffs Water • 20 years for Welsh Water • 33 years for Severn Trent • 20 years for United Utilities. Do you consider an increase in water companies' customers' bills acceptable to achieve a better level of service? For reference, increasing the level of service for temporary use bans from 1 in 20 years to 1 in 40 years would cost between 50p and £8.	With regards to levels of service, most respondents felt like bills should not increase to improve these, but rather education and demand savings should naturally tip the balance so that these are not needed as frequently. For those who agreed, any increase in bills should be moderate and phased in. As before, some felt water is already expensive. There was an interesting point raised that placing the increases in bill costs in such a long-term context is not helpful to the respondents.
Drought resilience	Resilience to extreme drought means that water companies are only likely to have to implement rota cuts and standpipes once in every 500 years. We are aiming to achieve this level of resilience by 2039 in England, and in Wales only for areas where external transfers are proposed. Do you consider an increase in water companies' customers' bills between 50p and £4 as acceptable, to help us achieve this resilience standard from 2025 rather than the statutory target of 2039?	There was broad agreement with increases in customer's bills to help water companies achieve the higher drought resilience standard earlier. However, the few respondents who opposed this highlighted that leakage should be tackled instead.

Topic	Question	Response summary
Demand management	Do you support a plan that relies on an average of 20% reduction in personal water consumption, and corresponding reductions in peak and non-household consumption?	All respondents were supportive of a 20% reduction in personal water consumption, acknowledging that consumers must take more responsibility for their water use. However, there was a view that this would lead to a loss in personal hygiene. Moreover, the water companies' ability to instigate a 20% fall in demand for water was questioned as this was not viewed as something that will happen without strategic action from the water companies.
	Would you support government measures to help reduce water consumption, e.g. water labelling and building standards, alongside measures that the water companies can take?	All respondents expressed support for the government's initiative to help reduce consumption alongside water companies' own measures. This was seen as a good way for people to take responsibility for what they consume and pay accordingly, as they pay for other goods/services.
	Would you support a plan with increased metering to help customers reduce their consumption with more and better information, and charges based on the amount used?	All but one respondent agreed that metering is a good solution to help reduce demand, even if costs could go up after fitting the meter due to moving away from fixed costs. Taking responsibility and paying for the water that is actually used is seen as a good way forward.
	Do you consider an increase in customers' bills acceptable to solve deficits by reducing demand?	Most respondents felt that it would not be acceptable for customers' bills to increase to solve deficits. Others agreed that it would be acceptable but that the level of increase needs to be quantified.

G.3. Detailed consultation feedback

Table 2. Summary of feedback received via Water Resources West mailbox.

Organisation	Feedback received	Water Resources West's response
Regulators		
Drinking Water Inspectorate	The Inspectorate has issued guidance on the Long-Term Planning of Water Supplies which should be followed when securing new supplies. In the case of new intercompany or cross catchment transfers (raw and potable) and new resource schemes (e.g., water re-cycling, desalination) water companies should adopt and expand the drinking water safety planning approach to encompass the potential new drinking water quality risks associated with these types of schemes.	Thank you, we are happy to confirm that we are following this guidance.
	Companies should take water quality considerations into account (i.e. to complete a risk assessment on the potential impacts on public health, wholesomeness and acceptability to consumers of new or altered supply arrangements, including cross-company transfers of raw or treated water, mixing of water and new resource schemes) when developing options stemming from the regional plans. Where a potential risk is identified, prior to making supply changes, a company must take steps to mitigate that risk	We can confirm that this is a high priority for us and will be incorporated into our members' WRMPs.
	The Inspectorate considers early engagement with consumers is key to mitigate acceptability issues relating to taste, odour or the feel of water for new resource schemes wherever there is a change in source water, or a new source is used.	Our member companies engage with customers when we propose new sources of water or changes to the resources used. For WRMP24, as part of the Severn Thames Transfer scheme, there has been engagement with consumers regarding acceptability research around changes in water sources as a result of any new resources required to support the transfer scheme. More information can be found in the Gate 2 reports on the Ofwat website.

Organisation	Feedback received	Water Resources West's response
Ofwat	Regional groups and water companies should note that Ofwat will require further information on costs at the WRMP stage to allow the necessary scrutiny. Cost of options presented should be the cost of delivering the full benefit or demand reduction and the costs presented at the WRMP24 stage are expected to be the same as those submitted in business plans at PR24. Plans should compare the cost of the best value plan to the least cost plan. The difference in expenditure, and benefits, should be clearly stated and cost drivers fully explained.	Detailed cost information is included in the WRMP tables for each company.
	Options where companies seek funding at the business plan stage should have all known environmental and drinking water quality risks identified and mitigations costed. If there are significant risks which could prove to be showstoppers, mitigations agreed with environmental regulators or alternative options should be available. Drawing out key assumptions and uncertainties in your final costings in your plan will help Ofwat have confidence in your costing consistency through PR24.	This is helpful feedback for the WRW member companies, when preparing consistent options assessments and costings for regional plan and WRMPs and for their PR24 business plan submissions. We expect this detail to be included in the companies' plans.
	We are expecting significant effort on demand management and want to see glide paths backed up by commensurate water company actions. This should include the potential for coordination of action at a regional and national level and considerations of the benefits that could bring. Where your future initiatives to reduce personal consumption to 110 litres/head /day are reliant on government policy, we ask that you clearly articulate which policies your assumptions rely on, and your assumed dates of implementation. Beyond supporting water efficiency in households, and as noted in our previous letters from March 2020 and February 2021 on the subject, there is significant potential for improved water efficiency in the business retail sector. Improving water efficiency in non-households can and should make a significant contribution to meeting national water needs on a long-term, sustainable basis. Regional groups should demonstrate they are working effectively	Within our plans we set out the demand reduction glide paths to meet the 110 litres/head/day government ambition. This includes what can be achieved through company actions, as well as defining the contribution required from expected Government interventions on activities including Water Labelling and improved Buildings and Water Fittings standards. Non-household demand reductions are also included in the plan, with more detail in the WRMPs.

Organisation	Feedback received	Water Resources West's response
	with retailers to set ambitious plans for improving water efficiency in the non-household sector and making appropriate assumptions around how water efficiency can be improved.	
	While the regions are generally proposing to meet requirements around drought resilience, personal consumption, and leakage, we've not yet seen enough focus on profiling those changes to optimise outcomes. We want to see sensitivity analysis undertaken on this to understand if there are significant savings or changes in benefits that could be achieved from shifting dates earlier or later in the planning period. Set out how it is profiling changes in drought resilience, personal consumption, and leakage across the planning period to optimise outcomes.	This information has been provided in the draft regional plan Appendix E.
	Further work is needed to fully understand and prioritise changes required to water abstraction. The abstraction reductions currently proposed in the emerging plans are large and carry uncertainties, particularly in the Water Resources East and Water Resources South East plans. Regional groups should work with environmental regulators to reduce the uncertainty around these figures and profile required changes across the planning period before the next plans are published. This is essential to demonstrate that the plan is sustainable and robust enough to meet the needs of WRW and other regions through the planned transfers. Changes to the way water is managed should deliver a net gain to the diversity and quality of the environment to enable a better overall outcome.	We have adopted the latest guidance on what to include in the plan and have a range of scenarios to test the plan to develop an adaptive management approach. In much of our region licence capping will drive the early investments and environmental destination improvements behind this. We are sharing the assumptions with the Environment Agency and anticipate further refinement between draft and final plans. We are also proposing a large investigation programme for 2025-2030 (AMP8) to reduce the uncertainties for the next round of plans.
	The plans are proposing a step change in investment. Regional groups should therefore think carefully about the deliverability of the plans from a practical perspective. This includes current supply chain constraints and affordability concerns. Regions should be making sure that their proposed solutions are adaptable and that	We agree that demand management is important as part of the twin track approach. Significant demand intervention is included in this plan. Smaller scale options are included in the options assessments and directly in the optimiser alongside large options. There is no options size threshold between regional and WRMP options – all the

Organisation	Feedback received	Water Resources West's response
	smaller scale options aren't discounted in favour of larger solutions. Demand management has an important role within this as part of the twin track approach.	options are considered together. This is an important part of our approach because otherwise bias toward large options could have been introduced. We would expect the water companies to be responsible for engaging with their supply chain and considering affordability for customers to ensure that these important aspects of delivery are reflected into the decisions their boards take and are included in the regional plan.
	Some of the plans include insufficient options in comparison to the projected needs. This situation risks making all available options seem low regret as they tend to be selected widely in the modelling. The plans must include a suitable number and range of options against the projected need. Regions should also be considering supply options to facilitate transfers to neighbouring regions where this could represent the best value approach.	We have reviewed our lists of feasible options against the latest view of supply demand balance need. But we need to note that basing the baseline planning assumptions around the Environment Agency's BAU+ scenario means a very large number of options are required to cover the deficits.
	Consider whether additional options are available, particularly licence trades or catchment management options, and set out what constraints or assumptions have led to no transfers to WRE being presented.	We have included catchment options as part of our Environmental destination in Section 7.2 of the Draft Plan. A narrative to explain the lack of transfers to WRE has been provided in Section 5.4.
	The regional plans show some evidence of cross-sector collaboration. This is encouraging as cross-sector projects have the potential to bring additional social benefits. However, water customers should only be expected to fund solutions consistent with the proper carrying out of the functions of a water company. We expect third parties who will benefit from the solution to contribute a fair share of costs according to their own responsibilities and the benefits they realise	We agree with this. Affordability is an important consideration for WRW. Analysis by CEPA for Water UK[1] shows that the three water companies with the highest proportion of customers facing water poverty are Hafren Dyfrdwy, Welsh Water and United Utilities. We therefore have a responsibility to ensure that decisions on water resources are taken in this context, so that average bill levels are affordable and any investments are efficient and well justified. As a point of principle water company customers should not be cross-subsidising other sectors. Any sector with a direct benefit would be expected to contribute proportionally (although there are none of these currently in the plan). However, where investment is needed

[1] https://www.water.org.uk/wp-content/uploads/2021/04/Quantitative-analysis-of-water-poverty-in-England-and-Wales.pdf

Organisation	Feedback received	Water Resources West's response
		for PWS needs, then customers to expect them to consider environmental, carbon and other impacts of those investments in a best value sense. Our approach to best value decision making allows value judgements inherent within best value planning to be explicit and linked to customer valuations.
	We expect completed data tables to be published by all groups with the next round of regional plans so that the plans are transparent and regulators / stakeholders are able to understand and comment on the decisions made. Linked to this, plans published in the autumn should be as self-contained as possible to allow stakeholders to understand the main points without needing to review a long list of previous documents or appendices.	Our regional planning tables can be found in Appendix H, with accompanied comments in Appendix E. The draft plan should be read in conjunction with its appendices.
	Stakeholder engagement must be meaningful, have sufficient reach and be appropriately targeted. WRW has engaged with stakeholders and customers and presented the outputs of this in its plan. As WRW progresses its plan it should focus engagement on the options arising and the trade-offs associated with those options. The current questions do not adequately cover non-public water supply sectors or meaningfully explore the trade-offs between different options portfolios or options typologies. WRW should also set out more clearly how its engagement has shaped its plan. For example, your work suggests that the level of customer awareness on water efficiency is low "most customers use water freely with little thought". This should be indicative that further work is required on communications. WRW is the only region with links into Wales and its engagement should reflect views on both sides of the border. Overall, WRW has done a good job of presenting its plan, its documentation is high quality and it is the only region to publish data tables alongside its emerging plan.	We have undertaken extensive engagement in Wales and continue to do so, to inform our selection of catchment interventions as part of our environmental destination. We have also engaged extensively with the non-PWS sector since the January 2022 publication. We have reflected the feedback we received in the January 2022 consultation in this appendix.

Organisation	Feedback received	Water Resources West's response
	WRW has accommodated cross-border policy and legislative differences between England and Wales into the context of its emerging plan. WRW needs to continue this through to option and best value plan development with specific local and regulatory engagement.	Thank you for this recognition. We have continued to do so for this draft plan, and have sought to make our explanation of the differences between England and Wales even clearer.
	The estimated environmental needs (from reductions in abstraction) included in the WRW plan have increased since the last report. Companies within WRW have taken quite different approaches to estimating the changes which creates inconsistency within the region. Our understanding is that United Utilities has included 50% of the Environment Agency's enhanced scenario in its baseline whereas South Staffordshire Water and Severn Trent Water have only included changes that have already been investigated and confirmed. Welsh Water has included one additional uncertain abstraction change. This inconsistency raises risks around comparability of the planning problem across the region. United Utilities has committed to working with the Environment Agency this year to understand what investigations are required to understand which changes to abstraction are needed by when. The other companies in WRW should also commit to doing this. WRW needs to work with the environmental regulators to agree its approach in this area as a priority, including with NRW where catchment approaches may still result in licence reductions. This is needed to give confidence that water is available for transfer out of region and that proposed investment is appropriate.	Following review of the pre consultation responses, discussions with the Environment Agency (EA) and consideration of the Regulator document "20220503 Response to regional group paper_final", we have included source reductions from the BAU+ scenarios in the Draft Plan supply demand balance tables. There is considerable uncertainty in this assessment, however, it forms the basis of a potential long term need to inform both the individual water company and WRW regional plan environmental needs. We have used the Enhanced scenario as our high scenario, however, for our region the BAU+ and Enhanced scenarios are very similar. We have also developed a low scenario. More detailed evaluations will be needed in 2025-30 (AMP8) to focus on catchment specific ecological outcomes and the further development of solutions including more holistic catchment measures. The abstraction reductions scenarios have been generated from the EA's water body Abstraction Tool. All the water companies in WRW have reviewed the outputs from the EA's water body Abstraction Tool. The outputs of the tool and individual water company reviews have been shared with the Area EA teams to gain their input on the scale of the reductions from the national tool and how this relates to catchment specific ecological outcomes. We will also discuss what further investigations are required to reduce uncertainty in our AMP8 WINEP programme. No abstraction reductions have been identified in Wales. Environmental destination in Wales takes a more holistic approach having a wider concept encompassing Area Statements and other

Organisation	Feedback received	Water Resources West's response
		plans to deliver the Sustainable Management of Natural Resources (SMNR).
	WRW has set out the region's future needs by water resource zone across the planning horizon. The main report's description of the major trends provides a general understanding of the regional drivers to the forecast, and Appendix E provides a useful breakdown of the company approaches applied to each supply demand balance component to compile the forecasts. However, WRW should set out specifically what drives each surplus and deficit and include a breakdown of the drivers of change in each supply demand component. This would be particularly useful where deficits are forecast for some water resource zones at the beginning of the planning horizon. WRW should set out the impact on water availability, defined as deployable output (DO), when the 1 in 500 year resilience requirement is applied.	A summary of this has been added in Section 4.2 of the draft plan and full details can be found in the regional planning tables for each resource zone.
	WRW should take into account the Ofwat common reference scenarios on water resources shared 17 November last year and factor these – and any amendments following consultation – into the regional plans as appropriate.	We have led work with the other regions to ensure the Ofwat common reference scenarios were used within the second inter-regional reconciliation. We also used the common reference scenarios as part of the consistent scenario testing of our regional plan.
	The WRW plan proposes to support the South East through the Severn Thames Transfer and this is backed up with evidence of stakeholder and customer opinions. It does this while maintaining resilience in the region. The emerging plan includes a wide range of feasible options. We are pleased to see that these include a number which prioritise more efficient use of existing sources, such as water treatment works capacity increase, process loss recovery and effluent reuse. However, WRW should consider whether more than one licence trade, and two catchment management options, are possible given the regional group's remit to take a more holistic view of catchment use and users. We would also like to understand what	Our water supply option appraisal has assessed options that could improve deployable output and enhance the supply / demand balance. Catchment management options do not generally improve deployable output and are instead better suited to protecting water quality and ecology. As such, the WRW non-public water supply and Environmental Destination work is appraising a range of potential catchment management options that could help to deliver our environmental goals. Abstraction licence trading continues to be explored by the water companies within WRW as well as by the non-PWS workstream. The

Organisation	Feedback received	Water Resources West's response
	constraints or assumptions have led to no transfers to WRE being presented.	water companies within WRW have a good track record of using abstraction licence trading as a sustainable and affordable approach to water resources management. However, future trading opportunities are limited by the Water Framework Directive status of the water bodies within our region and the future environmental destination goals set out in the National Framework. We continue to explore licence trading opportunities but these need to be reviewed on a case by case basis against the relevant Environment Agency's Abstraction Licensing Strategy (ALS) documents for the affected catchments – the most recent ALS guidance will generally not allow trading of abstraction licences between parties if WFD status is put at risk.
	WRW should clarify whether any options have already been funded in previous determinations, and how these are being included in the baseline supply demand balance or represented in the emerging plan. This includes the representation of previously funded green recovery schemes.	Options selected in WRMP19 and those funded through Green Recovery for implementation during 2020-25 have been included in the baseline for this plan. The WRW member companies have reported that no options for 2026 onwards selected in this plan have been funded for delivery as named projects in previous determinations. The SROs have benefited from options development funding through the gated process.
	WRW has taken a thorough approach to identifying key groups of non-public water supply users across their region. As part of this, WRW has prioritised catchments where opportunities are likely to exist to integrate across public water supply and other sectors. We would like to see WRW following this through to identify opportunities that develop into options to be considered for inclusion in the plan.	Thank you for your support.
	We recognise that cost estimates are not yet fully developed, and WRW has presented a high-level approach to cost investment drivers. We expect, as the plan develops, for the costs to be presented as a total for the plan and broken down by options selected within the plan. Information on costs should include how	Cost estimates are now fully developed for all options. Detailed cost information is included within the regional plan tables, consistent with the costs for WRMP24 which have been robustly calculated by

Organisation	Feedback received	Water Resources West's response
	they have been estimated and what they represent, such as whether they are net present value (NPV). We also expect costs to be robustly calculated for the options presented in WRMP24 and PR24, and not based on high level estimates using Ofwat's view of efficient costs from PR19.	companies. These costs are reported in line with expectations in the WRPG.
	WRW's plan is being developed in the context of achieving the water industry's goal to achieve net zero operational carbon emissions by 2030, by adopting low carbon enabling solutions. WRW should clarify carbon assessments (and designs to reduce carbon) are for whole life carbon, and that solutions will take approaches such as being designed to first reduce carbon ahead of offsetting. Referencing to key methodologies and frameworks will help clarify approaches.	The embedded and operational carbon costs of all water supply options have been taken into account in the overall best value appraisal of options. The carbon cost values have been informed by The Department of Business, Energy, and Industrial Strategy's October 2021 *Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal.*
	WRW should set out how the plan will be achieved while being affordable to customers by indicating potential impacts to bills. WRW has started this by including estimated costs of delivering increased drought resilience earlier to inform a consultation question. However, in this example, focusing on the increased costs of earlier delivery detracted from conversations about total costs. We note that, more generally, good stakeholder and customer engagement has taken place on acceptance of bill increases for different priorities within the region, and that this has helped shape the plan's targets and ambition.	The emerging plan included some indicative bill impacts for a number of strategic questions. This was useful to understand relative priorities in shaping the plan, however we recognise that this is not the same as a full assessment of bills to answer important affordability questions for our region.
	WRW's ValueStream decision making tool is presented in the emerging plan, along with a broad range of metrics and weightings assigned through stakeholder views and catchment data. WRW should demonstrate how this tool has been used in developing a best value plan, alongside a clear comparison to the least-cost plan, justifying where and why options now differ. Robustly valuing additional benefits will allow confirmation that additional costs in	Further detail has been added into the plan showing how the tool has been used. The benefits have been updated with new customer valuation evidence, which has been subject to peer review (for Severn Trent, South Staffs and United Utilities). For more details see Section 6.5 and Appendix O.

Organisation	Feedback received	Water Resources West's response
	the best value plan, in comparison to the least-cost plan, are appropriate.	
	The WRW plan says it will achieve 1 in 500 year drought resilience by 2039, in line with the planning guidance which says that companies should aim to achieve this resilience by 2039. However, the planning guideline also prompts companies to determine optimum timings for this. We want to see the regional plan looking at the trade-offs around different pathways to 1 in 500 year drought resilience at a regional scale rather than leaving this to individual water company analysis. Sensitivity testing should be undertaken around the year in which plans aim to meet 1 in 500 year drought resilience. This should include flexing to 2050 where more flexibility is considered appropriate to identify if there are significant cost savings or additional benefits that could be achieved from moving this date.	The assessments and sensitivity testing that the companies have carried out to determine which year to adopt the 1 in 500 standard are reported in Appendix E Section 1.3.
	We would like to see how stakeholder and customer views on willingness to pay to resolve interruptions and water quality, have played into the decision-making process. Customers' views will likely differ to other stakeholders' views, so knowing how each group has affected weighting will be important.	We have new customer valuation evidence to sit alongside the stakeholder valuations. For further information please see appendices F and G.
	WRW has set out four adaptive pathway scenarios to test different futures and the options that would be required in them. It will be important to undertake sensitivity tests on these to make sure they capture, and options can accommodate, uncertainty in these futures. WRW should be open to adapting or increasing the number of scenarios as the plan develops	Our scenarios have now been updated and have been informed by the engagement with other regions for use in reconciliation, and linked to the Ofwat common reference scenarios. Our regional plan adaptive pathways have not been constrained by these scenarios, but have informed our understanding of the uncertainties affecting the significant, long lead-time water resources investments.
	WRW has undertaken two stress tests to investigate environmental destination and demand management uncertainties, which reflect those undertaken in the reconciliation process. As the plan develops	We have undertaken a total of 6 sensitivity tests. This information is provided in the draft regional plan (see Sections 5.4 and 7.7).

Organisation	Feedback received	Water Resources West's response
	we would like to see further region-specific stress-tests undertaken that consider region-specific uncertainties.	
	WRW's demand strategy is in line with personal consumption and leakage expectations. However, no demand management options are included in the regional plan itself. WRW requests that companies confirm their commitments to select options to meet these targets. WRW should take a more active role in selecting demand management options in its regional plan, to enable the development of a glide path for the region to meet expectations.	The individual company plans provide the detail of the specific demand management measures to be taken to achieve the long term commitments around leakage and PCC. The WRW plan reflects these demand options in Section 7.1.
	WRW has carried out stress tests on the impact of demand management strategies only being 50% effective. The conclusion is that sufficient supply options remain to maintain the supply demand balance in this case. However, the onus should not only be on supply options to offset meeting demand targets. The plan should also consider enhanced demand strategies.	Our plans will assess all demand options, however demand options alone will not address the deficits. The stress testing assesses the impact of only delivering 50% of demand reductions.
	While the WRW plan is broadly looking to align with planning requirements around water efficiency (personal consumption) and leakage it leaves the detail of how these will be achieved to water resource management plans. WRW should develop more detail in this area to give confidence in the deliverability of the demand side savings.	Whilst delivery of leakage targets are within the control of companies, there is always going to be greater uncertainty around the delivery of customer demand reduction. Water Company action alone will not deliver the 110 litre/person/day PCC ambition which will also require Government intervention. This is set out within our plan.
	WRWs plan sets out a process to move from unconstrained options to feasible options via high level screening, and then to options to be taken through to decision making via detailed screening. Appendix B also sets out the high level and detailed screening criteria. However, WRW should clarify its approach by: • Identifying which options were considered and excluded at unconstrained and feasible options stage. • Clarifying how the high-level screening criteria was used to produce the 'likelihood of selection' ranking in the main reports	For information on options screening and assessments see Appendix K. Table 10 in the emerging plan referred to potential options that we might have selected for the draft plan, after the first reconciliation. We have since had a second round of reconciliation and have selected our preferred options for the regional plan (see Section 7.1).

Organisation	Feedback received	Water Resources West's response
	'Table 9', and whether options were considered on individual merit or by type. • Explaining how the detailed screening criteria were used to result in the options put forward for reconciliation, and how outcomes of this consultation feedback to influence this. • Confirming whether the suite of options presented in the main report's 'Table 10' represents options selected through reconciliation on a least-cost only basis.	
	The WRW plan says it will develop options which provide environmental benefits by reducing flood risk and providing new habitats which are sustainable in the long term. The plan also talks about significant stakeholder support for options that also manage flood risk. Flood risk, carbon and wellbeing are considered in the 'ValueStream' decision making tool and we look forward to seeing how these options feature in the next version of the plan.	We have engaged with stakeholders in three catchments, the Wyre, Worcestershire Middle Severn (the rivers Worfe and Stour) and the Idle and developed a first iteration of catchment options which would bring both water resources benefits and wider catchment benefits. These have been generated in parallel to the water resource and demand management options. An options screening and benefit assessment has been developed to complement the WRW options methodologies. Further information is contained in the Environmental Destination Appendix D.
Environment Agency	We have significant concerns about the short-term deficits presented in the plan. These issues combined pose a significant risk to WRW's proposed transfers to WRSE – we expect both groups to consider this further ahead of Autumn 2022.	Short term (prior to 2039) deficits were presented in the plan at the 1 in 500 level. This was our understanding of the agreed format to support inter-regional reconciliation. Government policy does not require this resilience standard to be reached until 2039/40 so deficits at the 1 in 500 level before this date would not necessarily be an issue if current resilience standards are still met. For this draft plan we are reporting against the companies chosen resilience standards, in line with the latest Water Resources Planning Guideline.
	The Autumn 2022 draft plan should set out the options that will need to be implemented in order to achieve these leakage and PCC outcomes along with potential delivery risks and adaptive planning decision points along the way to 2050	The draft plan includes a description of the water company activities needed to achieve 110 l/p/d and makes clear the assumptions around governmental and third party contributions to achieving the target (see Sections 5.3.3 and 6.2).

Organisation	Feedback received	Water Resources West's response
	WRW (and WRSE) should provide information about SRO delivery risks in its Autumn 2021 draft plan. We expect WRW plan to include a clear narrative on how the Severn-Thames Transfer can happen whilst customer supply resilience and the environment in United Utilities' operating area is protected and improved. It is important that the benefit is presented in a consistent manner across plans and submissions, along with clear articulation of who will incur costs. We also expect round two of regional plan reconciliation to fully consider the range of potential futures for the Derwent Valley transfer (rather than, say, simply assume the SRO will be delivered).	United Utilities has worked closely with the Severn Thames Transfer and North West Transfer SRO teams to assess delivery risks. In both cases considerable analysis has been completed and reported as part of the RAPID gated process. In the WRMP we have used this information, for example detailed scheme implementation programmes, to develop our preferred plan. In order to protect customers and the environment, no water trading will occur until the necessary "back-fill" options have been developed in United Utilities' supply area. Very careful consideration has been given to the specific back-fill options that will be developed. United Utilities' WRMP is fully aligned to the outcomes of regional reconciliation. Severn Trent has worked with Yorkshire Water to develop a shared common narrative around the proposed Upper Derwent Reservoir Expansion and how this is represented in both plans.
	Prioritise making best use of existing water sources (within sustainable environmental limits) first before considering options to take more water out of the environment.	Our best value draft plan includes many options targeted at improving asset efficiency and where required, upgrading existing asset capacity to enable us to abstract and convey larger volumes of water from existing sustainable sources. We have only sought to develop new sources of water where it is unavoidable where we can be confident that future abstraction will be sustainable.
	Provide information in the plan about the hydrological, hydrogeological and water resources systems assessments that have been done to give confidence in the water supply benefits of all options.	Technical details with regards to the methods we adopted for determining deployable output are given in Appendix E.
	Focus on developing more nature-based catchment options for the draft plan.	Since the emerging version of the regional plan, we worked to identify a variety of catchment based options, working with local stakeholders, to enhance catchment resilience in three initial catchments. These are shown in Section 7.2 of the plan. In addition,

Organisation	Feedback received	Water Resources West's response
		the water companies are investing in catchment based solutions to improve water quality, enhanced biodiversity and to offset carbon. These combined actions will significantly enhance the catchments in the region.
	Consider options to improve the use of groundwater in United Utilities supply area.	We have included several groundwater options in our best value draft plan, these are outlined in Section 7.1.
	Present additional potential future options in the following Severn Trent Water zones: Bishops Castle, Kinsall, Mardy, North Staffs, Nottinghamshire, Rutland, Ruyton, Whitchurch & Wem	We have reviewed the list of options available in the water resource zones that present deficits. Those options have been assessed to determine their best value scores. Options demonstrating best value have been selected to be part of our draft regional plan (see Section 7.1). In some zones we have not had a large pool of options to choose from (i.e. Rutland is an import only zone) whereas in others, the feasible options pool was much larger due to the diversity of sources/upgrades to infrastructure available to us. Overall however we are satisfied that we have identified sufficient feasible options to allow us to make the best choices for our preferred plan.
	WRW environmental destination workstream is not meeting the milestones set out in the emerging plan. Severn Trent Water's Strategic Grid, Shelton, Nottinghamshire, Mardy and Rutland resource zones are in deficit early in the planning period. The emerging plan does not set out how these deficits will be addressed. The draft plan for consultation in Autumn 2022 must set out how all deficits will be addressed in final planning scenarios. This is a fundamental of water resources planning and is needed to provide assurance to customers and stakeholders that water companies are planning for resilient water supplies and to protect the environment.	We have reviewed the list of options available in the water resource zones that present deficits. Those options have been assessed to determine their best value scores. Options demonstrating best value have been selected to be part of our draft regional plan. We have now clearly outlined the benefit of each option, a total Ml/d benefit for each Water Resource Zone and how the deficits have been met (see Section 7.1).

Organisation	Feedback received	Water Resources West's response
	The plan does not achieve minimum regulatory commitments by 2050 across the whole WRW patch. WRW should work with us at a local leve to generate a central scenario that builds on achievement of NFWR Business As Usual scenario licence changes plus any additional licence changes required to meet Protected Area objectives.	Following review of the pre consultation responses, discussions with the EA and consideration of the Regulator document '20220503 Response to regional group paper_final', and we have included source reduction from the BAU+ scenarios in the Draft Plan supply demand balance tables. There is considerable uncertainty in this assessment, however, it forms the basis of a potential long term need to inform both the individual water company and WRW regional plan environmental needs. We have used the Enhanced scenario as our high scenario, however, for our region the BAU+ and Enhanced scenarios are very similar. We have also developed a low scenario. More detailed evaluations will be needed in 2025-30 (AMP8) to focus on catchment specific ecological outcomes and the father development of solutions including more holistic catchment measures. The abstraction reductions scenarios have been generated from the EA's water body Abstraction Tool. All the water companies in WRW have reviewed the outputs from the EA's water body Abstraction Tool. The outputs of the tool and individual water company reviews have been shared with the Area EA teams to gain their input on the scale of the reductions from the national tool and how this relates to catchment specific ecological outcomes. We will also discuss with the EA what further investigations are required to reduce uncertainty in our AMP8 WINEP programme.
	We would like to see an account for the short-term regulatory requirements, as set out in the Water Resources Planning Guidelines, across the whole WR West patch. WRW should implement a step-change in planning around environmental destination. WRW should work with us at a local level to generate a central scenario that builds on achievement of NFWR Business As Usual scenario licence changes plus any additional licence changes required to meet Protected Area objectives. This central scenario should then underpin the Autumn 2022 draft plan. The regional plan must include	BAU+ scenario issue addressed by comment above. We have reviewed and included assumptions on WFD no deterioration licence capping to meet the WFD no deterioration objective following the EA's latest WRMP capping guidance. 2020-25 WINEP WFD sustainability changes have also been included. Engagement has been sought from our area EA teams and we will work though assumptions and what needs to be included in the Final WRMP and in the 2025-30 WINEP programme. For further information please see Appendix D, E and H.

Organisation	Feedback received	Water Resources West's response
	measures to address short-term statutory environmental requirements and integrate them into the long-term ambition.	
	We recognise that this may impact planned abstractions in your regional plan and will work with you to understand the implications going forwards. Your Autumn 2022 regional plan should set out how you plan to consider and implement this policy, and how you will manage and reduce uncertainty whilst any investigations into impact conclude.	As already stated in the comments above, our supply demand balances take into consideration the licence capping policy. For more information see Appendix E and H. To address uncertainties, we have tested several scenarios to ensure our plan is adaptable. More information on sensitivity testing against various scenarios and our adaptive plan can be found in Section 5.5.3 and 7.4.
	We are concerned that United Utilities is presenting an overoptimistic view of its future supply-demand position within the emerging WRW plan information.	We have presented our latest view of the supply demand balance to the EA, which shows a lower resilience and also assumes significant work to improve resilience in 2020-25.
	The Environment Agency also provided some detailed feedback on some specific South Staffs, Severn Trent and United Utilities options.	Thank you for the feedback, we have used this feedback to improve our options summary descriptions. We have also taken your feedback into consideration as part of our option appraisal and selection process for the draft plan. More information can be found in Appendix K which contains the SEA report.
	WRW should take a holistic catchment-based approach to achieve the best possible outcomes for people and the environment. For example, considering options that have multiple benefits such as for both water supply, flood risk and water quality. We note that Figure 25 in the emerging plan main document appears to show significant disbenefits for carbon, flood risk and ecosystem resilience which is a concern. Also in respect of this Figure (25), please can you explain the multi-sector benefit of options as our understanding is that they only benefit public water supply.	Since the emerging version of the regional plan, we worked to identify a variety of catchment based options, working with local stakeholders, to enhance catchment resilience in three initial catchments (see Section 7.2). In addition, the water companies are investing in catchment based solutions to improve water quality, enhanced biodiversity and to offset carbon. These combined actions will significantly enhance the catchments in the region. We do not have any options that benefit the non-PWS sectors directly, as the development of such options will take some time, recognising that this is the first time we are working with non-PWS sectors on a regional scale. Nevertheless, we are actively collaborating with several non-PWS sectors and continue to explore solutions that could feature in the next regional plan.

Organisation	Feedback received	Water Resources West's response
	We would appreciate sight of and discussion around key outputs from the modelling that underpins United Utilities supply forecasting.	A session has taken place to provide confidence and ongoing conversations are taking place with the EA.
	We found reference in the plan to United Utilities' and South Staffs Water's WINEP investigation outcomes not being available until September 2022. Our understanding is that this should be March 2022. Several of United Utilities supply side options are currently being investigated under the WINEP for delivery in March 2022 (for example, sources in the Wirral and West Cheshire aquifer). The outcome of the WINEP investigations will therefore be important to the consideration of options for WRW regional plan and United Utilities WRMP.	We have now incorporated these into our supply demand balances (see Appendix H).
	With regards to the Shropshire Groundwater Scheme licence review and options relating to the Severn Deliverability of supply side options: • All options that include new and/or increased abstraction from the Severn should consider our ongoing WFD no deterioration investigation for the Shropshire Groundwater Scheme	Thank you, we are in agreement with this and Severn Trent Water are working with the Shropshire Groundwater Scheme review team.
	With regards to your Environmental Destination and groundwater in the Midlands: • The plan does not contain the actions necessary to address environmental pressures • Table 1 of Environmental Destination Appendix for England mentions '*We are seeking opportunities to explore further opportunities for catchment measures with stakeholders to bring improvements to our catchment and provide ecological resilience without destabilising public water supplies. We are initially undertaking this evaluation in three priority*	We are considering both catchment resilience options alongside licence reduction needs. We see opportunities to build catchment resilience though continued in-catchment work to return the water environment to a more natural state while also seeking multiple benefits from such activities. Licence reductions to protect both the surface water environment and the groundwater bodies will be included in the short to medium term in our plan. Abstraction reductions to continue on the pathway to good status and to take into account future pressures such as less water being available due to climate change will also be included in our draft plan. The BAU+ scenario as set out in the EA NF document will be included in our

Organisation	Feedback received	Water Resources West's response
	catchments, the Idle, the Wyre and the Worcestershire Middle Severn'. For GW balance /GWDTE WFD test failures, only licence reductions will ensure no deterioration and/or improvements. For Worcestershire Middle Severn, the GW balance is a significant challenge with Recent Actual abstraction already much higher than the available GW resource and carries a significant deterioration risk due to the large licence headroom.	baseline tables including a review of European designated sites, however, a range of scenarios will be considered at this stage to produce an adaptive plan.
	From Environmental Destination Appendix -WFD 'No Deterioration': *'We are taking an adaptive management approach for lower risk sources where licences, and our approach means that abstraction licences will be retained unless the risk of deterioration changes and requires alternative measures'.* We are not necessarily in agreement with this statement at this stage as this would not offer any formal control. This appears to be pre-empting the outcome of the WFD No Deterioration Investigations and Options Appraisals currently on WINEP and to be delivered. Ahead of the delivery of this work it seems sensible to keep an open mind on the options required to prevent deterioration and maintain an option of the "pathway to good status.	For the draft plan we have included conservative assumptions taking into account the latest EA guidance in relation to no deterioration and licence capping. The Severn Trent WRMP19 and our pre consultation plan included ambitious licence reduction assumptions to be implemented in 2030 and investment in both pipe infrastructure and new water resources has commenced to realise this scale of reduction. We had assumed that we would manage the risk of deterioration for other sources, however, if the EA require this to be reflected in licences or other formal control mechanism, we have currently assumed that further reductions will be made by 2040. We will work with Area EA to refine these assumptions for our final plan and what needs to be included in the 2025-30 WINEP.
	Page 15 fourth bullet point in Environmental Destination Appendix - groundwater flooding is a complex issue and needs more detailed assessment on a local scale in due course to identify potential areas of risk. It should not be used as a reason not to consider abstraction changes ahead of the detailed flooding assessments being delivered.	We agree that a bottom up catchment evaluation is required to develop the plan to realise the benefits and understand any disbenefits that will need to be mitigated. Only one assumption around groundwater flooding has been included in the longer term licence reductions which is around the Bromsgrove area where significant housing development has taken place in former marsh areas. This does not impact shorter term more certain actions and we will work with the EA and other stakeholders on catchment specific plans and update future WRMP assumptions accordingly.

Organisation	Feedback received	Water Resources West's response
	With regards to the sustainability changes information: • Your plan does not contain the detail to give us confidence around environmental protection • From Appendix E: Confirmed sustainability changes-Severn Trent has 41 groundwater sources that have confirmed licence changes. These include: Sustainability reductions relating to AMP6 RSA implementation schemes, at 14-16 sources, where average licence reductions will reduce to ~33Ml/d below the WFD recent actual abstraction baseline (2030). It would be useful to see the detail surrounding these. • A further 27 sources have been identified to be in the higher WFD no deterioration risk ADAPT category and these will have their licences reduced to the WFD baseline (2030). It would be useful to see a list of these sources for us to be able to assess if they tie in with Groundwater Bodies under greatest pressure of deterioration	A list of the 27 adapt sources was provided to the EA on 25 February 2022. We have reviewed and included assumptions on WFD no deterioration licence capping to meet the WFD no deterioration objective following the EA's latest WRMP capping guidance. WINEP WFD sustainability changes for 2020-25 have also been included. Engagement has been sought from our area EA teams and we will work though assumptions and what needs to be included in the Final WRMP and in the 2025-30 WINEP programme. For further information please see Appendix D, E and H.
	With regard to Welsh Water's Environmental Destination summary approach, it will be important that not just high level planning is undertaken in relation to Leintwardine. There are a number of site specific issues that will ultimately need to be considered in the plan ambitions/considerations (proximity to the SSSI/SAC for example).	Welsh Water has recently completed its 2020-25 WINEP study into the Leintwardine abstraction and agreed with local EA staff that they will take this forward for further investigation and option appraisal in 2025-30. Upstream abstraction on the River Clun, notably by Severn Trent Water, needs to be accounted for to ensure the most appropriate catchment wide solution is chosen.
	We would welcome further discussions on and sight of detailed licence information that Severn Trent Water has used to underpin the supply forecasting for the plan. This would give us a better understanding of how the environmental destination has fed into the plan.	We have shared the Water Body Abstraction Tool outputs with the EA along with any company specific assumptions applied following review of the data. We have also shared our earlier licence capping assumptions and anticipate refinement of this between the draft and final plan. We will also discuss what further investigations are required to reduce uncertainty in our 2025-30 WINEP programme.

Organisation	Feedback received	Water Resources West's response
	With regards to the assumptions relating to renewal of time limited licences: • The plan needs to consider this assumption • We note an assumption that time limited abstraction licences will be renewed on the same terms unless otherwise indicated through the WINEP programme. • This is a significant assumption and we'd recommend giving it more thought, linked to the environmental current / future pressures information we've provided to regional groups.	The companies are undertaking a review of the time limited licences and will provide a summary list of assumptions to discuss with EA Area colleagues. We have reviewed and included assumptions on WFD ND Licence capping to meet the WFD ND objective following the EA's latest WRMP capping guidance. WINEP WFD sustainability changes for 2020-25 have also been included. Engagement has been sought from our area EA teams and we will work though assumptions and what needs to be included in the Final WRMP and in the 2025-30 WINEP programme. For further information please see Appendix D, E and H.
	With regards to Page 16 South Staffs Water/Table 6. South Staffs Water Environmental Destination summary approach which states: *'We will continue to work with the EA on any AMP8 WINEP investigations that are required, whose outcomes will then be implemented in AMP9 (by 2035)'.* • Some may need to be implemented in AMP8-this statement seems to skip an AMP? Or does this refer to the longer-term environmental ambition? South Staffs Water doesn't seem to have included the longer-term environmental ambition requirements in its figures.	Following the submission of the emerging regional plan in January, South Staffs held session with the EA to share the process we are currently undertaking relating to environmental destination, and to share the scale of the impact on its Water Resource Zone, including the difference in this estimate depending on the assessment mechanism. Through these sessions, we have confirmed that we will be including the BAU+ scenario numbers in our baseline in the Water Resource Zone table for South Staffs in our draft plan submission in October. We have also confirmed that we expect to undertake investigations through the AMP8 (i.e. 2025-30) WINEP scheme to confirm the appropriate reductions and associated actions required for each source that will then form a key part of our WRMP29 submission.
	With regards to your environmental destination in the Midlands: *'Severn Trent included the unconfirmed sustainability reductions for our WFD no deterioration INVESTIGATION (38) and PREVENT/MITIGATE (23) risk category groundwater sources. At this time we have assumed a 50% reduction at these sources by 2030. The exact distribution and timing of these reductions are still to be agreed as part of our AMP7 WINEP programme'.*	We have reviewed and included assumptions on WFD no deterioration licence capping to meet the WFD no deterioration objective following the EA's latest WRMP capping guidance. WINEP WFD sustainability changes for 2025-25 have also been included. Engagement has been sought from our area EA teams and we will work though assumptions and what needs to be included in the Final

Organisation	Feedback received	Water Resources West's response
	• Clarification is required as to whether this is a reduction from FL, DO or RA as this clearly gives completely different outcomes and results in terms of no deterioration challenge. '*South Staffs included the unconfirmed sustainability reductions for its WFD no deterioration investigations of groundwater sources. The values represented are the full range of proposed reductions based on recent actuals –however the caveat is that these are currently under investigation with the expectation that not all of the proposed reductions will be required*'. • Again, we haven't seen any of this information and need to understand what is being included.	WRMP and in the 2025-30 WINEP programme. For further information please see Appendix D, E and H. For Severn Trent it was 50% reduction between average deployable output and recent actual. Following the submission of the emerging regional plan in January, South Staffs has held session with the EA to share the process we are currently undertaking relating to environmental destination, and to share the scale of the impact on its Water Resource Zone, including the difference in this estimate depending on the assessment mechanism. Through these sessions, we confirmed that we are including the BAU+ scenario numbers in our baseline in the Water Resource Zone table for South Staffs in this draft plan submission. We have also confirmed that we expect to undertake investigations through the 2025-30 WINEP scheme to confirm the appropriate reductions and associated actions required for each source that will then form a key part of our WRMP29 submission.
	The approach to catchments for multi-sector planning is unclear. The plan includes for increased engagement in 2 catchments (Staffs Trent Valley and Weaver Dane). However, the plan could be clearer about what this will mean in reality to have this additional focus.	Thank you, we generally agree with your view. This has been addressed in the supplementary note for non-PWS agreed by WRW Senior Group on 8 March 2022. Also see Appendix J which provides updated information on the non-PWS elements of our plan.
	We provided information on "unresolved RSA schemes" to WRW in January 2021. It is unclear how this information has fed into the environmental destination WRW proposes. We'd welcome further discussion and sight of detail to understand this.	Severn Trent Water has reviewed the area templates provided by the EA. We have included the BAU+ scenario in our data tables. Detailed investigations are being proposed for our 2025-30 WINEP programme. United Utilities has included the BAU+ scenario in our data tables. Detailed investigations are being proposed through the 2025-30 WINEP. South Staffs Water has included the National Framework BAU+ scenario in our draft plan. Detailed investigations will take place as part of our WINEP 2025-30 programme.

Organisation	Feedback received	Water Resources West's response
		Welsh Water has included the National Framework reductions for our Leintwardine groundwater source as a scenario. Further investigations in AMP8 have been agreed with the EA. Hafren Dyfrdwy has not included any reductions in their plan.
	With regards to Appendix D Environmental Destination Pages 4 and 13 –"*An adaptive management and monitoring approach will be taken for lower risk sources*." We would like to better understand what adaptive management means in this context.	Adaptive management is about managing our sources to prevent deterioration. For example at Severn Trent elements include; an annual abstraction review considering abstraction and growth predictions to identify and manage risks, source action plans to identify options to solve any challenges, environmental monitoring and ultimately the development of Operational Area Sustainable Abstraction Strategies that will be used to inform investment and operations based decision making. Although we have changed our assumptions to reflect the WFD No Deterioration licence capping guidance, we will still need to proactively manage the risk of no deterioration until such time that we have implemented solutions and completed required abstraction licence reductions.
	Minor point for clarity in Appendix E – text on page 5 Tittesworth compensation flow changes: • If changes are made then this could increase water available to abstract (rather than being a reduction).	Our deployable output modelling takes account of the agreed changes to the Tittesworth flow compensation arrangements. The revised compensation arrangements mean that reservoir storage is generally improved and this will improve water available for abstraction.
	Minor point for clarity regarding the presentation of options information in Figure 15: • It would be useful to see this broken down by Ml/d total per type of option as well as by number of options.	We feel that this would be potentially misleading, as the pie chart is intended to express the variety of feasible options we considered, not the options benefits. The options benefits (Ml/d) for each of the preferred options in our place can be found in Section 7.1.
	Page 21 of Appendix D presents a programme of work, some of which has not happened in line with the timings presented (for example, delivery of results to us and further discussions /	This programme is updated and has been shared with the Environment Agency via the Environmental Destination Task and Finish Group and WRW Senior Group. New guidance was subsequently released by the regulators '20220503 Response to

Organisation	Feedback received	Water Resources West's response
	refinement). WRW should update the programme of work so it is clear what input we can expect and when.	regional group paper_final' on what needed to be included in the plan.
	It would be beneficial to have an environmental destination (long term ambition) for the Trent catchment as a whole given all the interest from SROs and non-SRO options too. Will the Trent Working Group be developing an environmental destination for the Trent?	The Environmental Destination has followed the methodology set up by WRW and has used the EA National Framework scenarios. We have shared outputs with the River Trent working group and can work with the group on later iterations of the Environmental Destination. In the River Trent the abstraction reductions are currently focused on groundwater sources in the upper catchments rather than the main rivers that are the subject of the water resources options and the SROs which may support the actions needed to achieve the Environmental Destination in our region or neighbouring regional groups.
	We would like to understand the approach to licences with Hands off Flow conditions within the environmental destination work. Please can you explain this?	Licences with hands off flows (HOFs) have been reviewed as part of the review of consents for Protected Areas or WFD WINEP drivers. The HOFs are based on recent flows and, for the Environmental Destination assessment, have not been reduced for a potentially dryer climate impacted water environment. The HOFs have environmental protection built in. We have shared these assumptions with our Area EA teams. Some licences are supported by regulated flows, such as those on the River Severn. These have been assumed to be sustainable at this time. This will need to be revisited once dependant projects are completed including The EA's Shropshire Groundwater Scheme review and EA River Regulation review.
	There are a number of apparent inconsistencies with the information provided in the emerging plan compared to Gate 1 information for North West Transfer, Severn Trent Sources and Upper Derwent Valley Reservoir Enlargement SROs.	We have now rectified the inconsistencies in Appendix C.

Organisation	Feedback received	Water Resources West's response
	It is unclear whether and how the plan includes for the climate change abstraction reductions suggested recently by the Dee Consultative Group that affects sources on the Dee including those of United Utilities. We'd welcome clarity on this issue.	All companies have adopted NRW's recommendations based on the outcomes of their modelling (conducted within Dee Consultative Committee Technical Working Group).
	With regards to comparisons between forecasts for United Utilities Strategic zone with Severn Trent Strategic Grid zone: • We note some differences in forecasts and trends for some components of the supply-demand balance data for the two largest resource zones in WRW. • Household demand grows by 21% over the plan period in Severn Trent SG and by 9% in United Utilities • Non-household demand grows by 5% over the plan period in Severn Trent SG and decreases by 7% in United Utilities • Outage allowance for Severn Trent SG at 124 Ml/d is almost 10% of baseline deployable output whereas United Utilities' at 93 Ml/d is less than 5% of baseline deployable output • Target headroom (as a percentage of distribution input) increases from 3.4% to 7.2% in Severn Trent SG whereas the same measure decreases from 4.1% to 2% in United Utilities' (being static from 2049/50 onwards) • WRW (and Severn Trent/United Utilities) should consider why these differences occur, whether they are appropriate and (if considered appropriate) explain why they occur within the Autumn 2022 draft plan	The trends observed across this data reflect the different underlying assumptions within the demand models of the two companies. For example, use of ONS and local authority housing and population projections and occupancy trends. Non household forecasts of demand are derived from models fitted to historical data. The historic trend for United Utilities is significantly downward in all sectors and all WRZ. This drives the model. In particular for the Strategic zone, the downward trend is driven by the service (economy driven) sector. For this sector, the model found an inverse relationship with population and employment. For Severn Trent the downward trend is much less pronounced, and not in all WRZ. Therefore the model shows a positive correlation with population and no correlation with employment. For outage, Severn Trent has now reviewed and reduced its outage allowance to 76.17 Ml/d. Target Headroom: Differences between the glide path profiles of risk is a company decision and relates to the assessed risks of headroom components within each zone. Our draft plan regional tables (Appendix H) and commentary (Appendix E) provides greater detail of the components of the demand forecast for each company in WRW.
	We note that the Office for National Statistics is due to release Census 2021 population and household information starting in late May 2022. WRW should consider how it will use this information in future versions of the regional plan.	Companies will consider Census 2021 updates between our draft and final WRMPs, which will inform future versions of the regional plan.

Organisation	Feedback received	Water Resources West's response
	WRW's supporting data tables do not contain information about the individual drought measures that are assumed to provide a deployable output benefit under the 1:500 drought scenario. WRW should consider including more detailed information (for example in cell F42) on the measures included and their individual benefits towards the total zonal figure presented (where relevant).	All companies will provide a detailed breakdown of drought measure benefits in WRMP24 Table 6.
	Your emerging regional plan sets out the engagement that you have undertaken to consider views and needs of others in your regional plan and shows that you have progressed work to better understand the wider water needs in your region. However, we cannot see if or how this information has been used to influence decision making in the plan or that those wider needs have been considered as part of option appraisal for the region. We encourage you to consider what actions your regional plan can take to incorporate the needs of wider water users into decision making and be more fully taken account of in your overall regional strategy. Your regional plan should support growth and access to water in the region, consider the benefits to other water users of any supply-side options proposed and set out what further evidence and work may be required to do that more effectively in the future. This is especially important where your work demonstrates a short-term water availability issue for wider water users in your region.	We agree that water companies should consider the future needs of other abstractors when formulating options in their WRMP's. It would be helpful if the EA could assist by making clear their plans to engage with non-PWS abstractors on no-deterioration, licence capping and recovery of unused licence volumes. We will continue to engage with the non-PWS sector to ensure our proposed supply side options would not impact upon planned future demand from non-PWS abstractors.
Natural Resources Wales	We remain of the view that Hafren Dyfrdwy should be represented on WRW. We believe that it would be beneficial for them to be full members of the regional group, which would provide better representation of how the regional plan is being affected by cross border zones within Wales. In addition, this would ensure stronger stakeholder engagement for Hafren Dyfrdwy and its customers (especially given that potential options involving Llyn Vyrnwy are within their operational area). We would like to see PWS, and multi-	We are pleased to report that following engagement, in May 2022 Hafren Dyfrdwy decided to become a core member of Water Resources West. As such we are including PWS and multi-sector needs for all of Hafren Dyfrdwy's area in this draft plan alongside that of the other core members. We also welcome the benefits this will bring to stakeholder engagement in the Upper Severn and Upper Dee catchments.

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	sector water needs considered for the Hafren Dyfrdwy operational area also.	
	It is unclear from the emerging plan whether the Welsh requirements for Climate change assessments have been fully considered where applicable and unclear as to whether it includes the climate change reductions suggested by the Dee Consultative Group that affects sources on the River Dee, including those of United Utilities. We would like to know how WRW intends to consider its requirements supporting the reduction in greenhouse gas emissions (GHG) and meeting net zero targets for Wales under the Climate Change (Wales) Regulations 2021.	Welsh Water has appraised high and medium emissions scenarios in line with NRW and WG guidance and have built in the Dee reductions to the Alwen Dee Climate Change assessment. As a company Welsh Water has a net zero by 2040 strategy which is consistent with Welsh Government expectations. United Utilities has appraised medium emissions in the "most likely" pathway, high emissions in the "adverse climate" pathway, and low emissions in the "Ofwat low" pathway. It has joined forces with the rest of the water industry in England to achieve net-zero carbon emissions by 2030. This year the company made six new carbon pledges: unitedutilities.annualreport2022.com/our-approach-to-climate-change. All companies abstracting from the Dee catchment worked closely with NRW as part of a newly formed Dee Consultative Group technical working group. The group's remit was to review the hydrological and climate change datasets used in WRMP24. All companies followed NRW's recommendations with regards to the adjustment of the Dee General Directions cut-backs to account for climate change.
	SEWCUS zone is forecast to be in a small deficit during the planning period. The emerging plan shows that there is no deficit and therefore, there is a discrepancy in the reporting at water company and regional level. We would expect WRW to present the same supply-demand balance figures as Welsh Water and include within the regional supply-demand balance.	The emerging plan presented the information supplied by each water company, which was assured by Jacobs. The supply demand balances in Appendix H and the table showing deficits in the draft plan document have now been revised to account or the SEWCUS deficit, as we received a new set of planning tables from each company in in spring 2022.
	The approach to environmental destination presented does not currently meet our expectations for Wales. We are also concerned that the approach demonstrates a significantly lower level of long-	The draft plan recognises the opportunities for environmental destination in Wales. A number of nature based solutions are under consideration and these are listed in the plan. In addition the plan

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	term ambition for the environment than most other regional groups. We consider that there is a significant lack of detail around what environmental and well-being benefit will be provided for Wales, particularly around the Strategic Resource Option (SRO) for Vyrnwy. In addition, information about wider catchment management and nature-based solutions is also missing from the emerging plan. Our document 'setting and environmental destination' is clear that there must be an enhanced environmental ambition that is wider than simply abstraction reduction. It must support the achievement of the long-term aims of sustainable management of natural resources (SMNR) and the Well-Being goals within Wales. Therefore, the plan must follow the Welsh legislation requirements and consider the specific guidance for Wales on environmental destination. We welcome further discussions on this with yourselves ahead of the draft regional plan.	recognises the opportunities that water supply option development can bring to Wales, particularly the Lake Vyrnwy SRO. The benefit assessments and specific opportunities will be refined over time and will be evaluated to ensure they support the achievement of the long-term aims of sustainable management of natural resources (SMNR) and the Well-Being goals within Wales. For further details on the environmental destination in Wales, see Section D.2 in Appendix D.
	It is unclear how WRW will cover the required Strategic Environment Assessment of its plan for Vyrnwy element of Severn Thames Transfer. There is significant risk around the impact the Severn-Thames Transfer SRO could have on the Severn Estuary SAC and key species, including any functional linkages such as the migratory fish spawning area of the upper Severn. Therefore, careful consideration needs to be given to any impacts on the River Vyrnwy of increased releases. We are also concerned around the lack of clarity for North West Transfer element of the SRO.	The SEAs and other environmental assessments of Severn-Thames Transfer and North West Transfer are being led by the respective SRO teams at part of the RAPID gated process (Gate 2 submission). The WRW draft regional plan will include an in-combination assessment of the proposed schemes, including Severn-Thames Transfer and North West Transfer. The environmental assessments published alongside company WRMPs will also include information on North West Transfer and Severn-Thames Transfer relevant to those plans.
	We are disappointed at the limited stakeholder engagement for Wales. Going forward for the draft regional plan and at future stakeholder events, these must provide the Welsh context when it differs from England.	We have invited a multitude of Welsh stakeholders to take part in our informal consultation on the emerging plan. Nineteen percent of stakeholders at our events were served by Welsh Water, which is a greater proportion than the population served. The consultation on the draft regional plan will be led by each water company, and we hope to see an increase in participation from Welsh stakeholders. Moreover, Hafren Dyfrdwy have now joined the Water Resources

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		West group and this may also increase participation from Welsh stakeholders. Through the various WRW consultations we have engaged extensively with Welsh stakeholders focusing on the strategic need for the scheme. This has involved working with key bodies in Wales such as NRW, Welsh Water and the Welsh Water Forum to ensure correct identification of key stakeholders. 200 Welsh Stakeholders were invited to participate in our consultations. One of our emerging plan events included targeted content for stakeholders in Wales. We regularly engage with the Wales Water Management Forum, and have had specific discussions with particular Welsh stakeholders, for example Afonydd Cymru, Brecon Beacons National Park, CLA Cymru and a flood interest group in the Upper Severn catchment. We will continue to engage with these stakeholders, and seek opportunities for further engagement. We would welcome any additional suggestions from NRW of particular stakeholders we should engage with.
Local Authorities		
Cheshire West and Chester Council	Thank you for consulting Planning Policy at Cheshire West and Chester Council on the Water Resources West emerging Regional Plan January 2022. We have no specific comments to make at this stage, however we would welcome continued consultation as your Plan is developed in more detail to allow us to understand any potential impacts of the proposed options on our borough's resources and implications for future planning. In particular, we are keen to understand the implications for our water demand management if the regional water transfer option was to be pursued. The Cheshire West and Chester Local Plan (Part One and Part Two) includes policies which seek to address water resources and water efficiency measures at a local level. We have recently undertaken an informal Local Plan 'early conversation' with our	Thank you for taking the time to familiarise yourselves with our plan and for informing us of your own stakeholder engagement, which may have a bearing on future versions of the Local Plan. We will continue to engage with the local authorities in our region and consult with them again in autumn 2022, when our Draft Regional Plan will be published.

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	stakeholders which focused in on a number of environmental topic areas, including climate change and addressing the climate emergency. Consideration of the responses received during this 'early conversation' and the next steps in relation to progressing any update to the Local Plan are programmed to be considered by the Council's Cabinet later this year.	
Kinnerley Parish Council	It is disappointing to discover that the Council, nor apparently any parish council in Shropshire, had any direct notice of this consultation. That inadequate level of coverage casts doubt on the validity of your consultation methods.	We can only apologise that the consultation did not reach you. However, we invited several officers and some elected members from Shropshire council to the consultation events.
	Clywedog and Vyrnwy reservoirs have an important part to play in flood mitigation. Firstly, there is no mention of this aspect of Water Resources in the executive summary to the consultation, which dwells wholly on the supply of water for drinking etc. Secondly, the evidence is that neither reservoir is actually managed as well as it should be for mitigating downstream flood risk during winter.	Responsibilities for flood risk mana agent in the Severn Basin are set out in the joint Environment Agency and Natural Resources Wales Flood Risk Management Plan. Flood Risk Management Plans are currently been updated and it is these plans which shape the management of flood risk. The primary role of the WRW plan is to ensure that there is sufficient water available in the long term to meet abstractors' needs and this is therefore the focus of the executive summary. Nonetheless we recognise the importance of flood risk management to affected communities and have adopted an approach which seeks to identify and promote water resources options which also have a flood risk benefit. We are working within the River Severn Partnership to achieve these objectives in the Severn catchment and we would welcome any specific ideas for joint water resource and flood risk benefit that you might be able to put forwards.
Oxfordshire County Council	We believe that Water Resources West (WRW) and Water Resources South East (WRSE) need to work more closely together, and with adjoining regions, to address water needs.	We continue to work closely with WRSE and other regions to align our plans to meet water needs. We have added more detail in Appendix I about how we do this. Since we received feedback on the emerging plans we have conducted a second inter-regional

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		reconciliation with closer alignment of planning assumptions. A report detailing this reconciliation will be published.
	We are pleased that the emerging WRW regional plan indicates that there is potential for transfers of water from the West into the South East. Page 47 of the consultation document indicates that WRW recently proposed a total of 16 potential transfer options out of its region, of which 11 were to the South East.	We propose a series of feasible transfer options. After the second regional reconciliation, only some of these have been selected (see Section 7.3).
	It is our view that any strategic option should only be pursued with a full understanding of the forecast need for additional water and the water savings that can first be achieved through reduced pipe leakage, innovation and reduced water consumption.	Each region has robustly forecasted their needs both before and after the implementation of demand savings policies. Our plan clearly shows the needs we will have in the 2030s, 2040s, and 2050s and beyond, even after implementing ambitious demand management policies. Hence the need for strategic resource options is clearly shown in the plan (see Section 4, 7.1 and 7.3).
Leicestershire County Council	Water transfers should be prioritised from areas with "spare" capacity so that the impact of the transfer is low. If supply needs to be increased in source areas, consideration should be given to building capacity at existing facilities (thought to have a lower impact) and other solutions that provide co-benefits to the environment or residents. The impact of any additional infrastructure required to facilitate the transfer should be included in the modelling and comprehensively considered so that environmental and social impacts are reduced or mitigated against as far as possible.	Care should be taken in deciding if there is "spare" capacity, as looking simply at supply demand balance surplus would ignore other aspects of resilience to water customers. Replacement options should ensure that resilience of supply, in a broad sense, is maintained under transfer. This does mean that, for the North West transfer, supply does need to increase to facilitate the transfer. We agree that the impacts of such investment should be carefully considered and mitigated where appropriate. Making better use of existing assets, e.g. building capacity at existing sites is a good way to do this.
	We recommend that the enhanced environmental destination is pursued, whilst reducing costs to customers as far as possible through innovative business models and delivery partnerships.	Useful feedback on the level of ambition specifying a preference for the enhanced scenario. For our region the BAU+ and Enhanced scenario are very similar and we will be considering both in future more detailed investigations to reduce the uncertainty in this area. We agree partnerships and innovative business models are needed and we will seek to trial these.

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	Some level of customer contribution is acceptable to support higher levels of environmental improvement. However, it is expected that this contribution could be mitigated against through the use of innovative business models and delivery partnerships which source external investment. For example, a natural capital or ecosystem services approach could be used to quantify and develop markets for co-benefits delivered by schemes.	Yes we agree we need to link into these emerging opportunities. We are working with the River Severn Partnership and River Trent Partnership to understand and collaborate to realise these. We can learn from this to benefit all of our region.
	It is thought that STW is retaining current service levels (1 in 33 years) so no additional cost is acceptable. More generally, we consider that a balance must be struck between service level and additional cost. The range provided of 50p-£8 is too broad to determine whether the additional service level of 20 years is value for money for customers.	Yes, Severn Trent is proposing to retain the 1 in 33 year service level for temporary use bans. We agree that a balance must be struck between service level and cost. Therefore companies with a lower service level and lower cost to improve would be more likely to find improvements favoured by their customers. United Utilities has carried out detailed customer engagement to determine the value that customers place on improved service and are proposing to move from 1 in 20 to 1 in 40.
	Water efficiency should be a key priority, with a defined package of support to educate customers, increase metering and smart metering, install efficiency measures and review commercial processes. In this way, the 20% target could be increased, particularly referencing the steep rise in water consumption over the past few decades. However, consideration should be given to vulnerable customers who may have additional water demand needs and should not be penalised. A small increase in bills is thought to be acceptable where there is a need for infrastructure delivery (e.g. water efficiency measures or metering), but it is thought that this could be weighted to those customers with the highest potential for savings such as large consumers or non-metered properties. . We support measures which help to raise awareness and importance of water reduction. We would welcome closer partnership working with water bodies,	Reducing demand is a key priority for all WRW companies and we are committed to playing our part in delivering the long term Government Ambition for 110 litres/head/day per capita consumption and reducing leakage by 50% by 2050. We see non-household demand reduction playing an important role in helping balance supply and demand and will include these options within our plan. We welcome all opportunities to increase partnership working and Severn Trent, the WRW company covering the Leicestershire area, will explore this with you.

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	particularly around customer behaviour change and local planning to reduce future demand.	
National Park Authorities		
Brecon Beacons National Park Authority	BBNPA is strongly supportive of the plan's proposals for abstraction reduction, in keeping with our extant policy position within the Local Development Plan.	Currently there are no abstraction reductions proposed to Welsh Water abstraction licences but we are planning a programme of hydro ecological investigations for 2025-30 into the long term sustainability of our abstractions. A number of our abstraction licences were modified during the Review of Consents process under the Habitats Directive which in most cases reduced the amount of water we could abstract from the River Usk, River Wye, and River Towy for example.
	Given the future strain on water resource as predicted by climate change scenarios, the continuing pressure for housing and economic growth and the context of Climate and Biodiversity emergencies, there is a need for this plan to set a more holistic vision for securing the sustainable management of water resources.	Our preferred programme of interventions will form our 'Best Value' Plan ensuring that we meet the challenges of a growing population, a changing climate and the continuing pressures being placed on the environment. To support this we are delivering an ambitious programme of demand management that will reduce the volume of water we need to abstract and treat.
	We do not regard 'business as usual' and the first two possible levels of environmental ambition as viable given known pressures on the water environment (i.e. rivers, streams, lakes, underground sources). We propose that further interventions must be made to ensure current standards of environmental protection are met, and the plan also prioritises some water environments for enhanced protection for the future (Level 3).	Our planned programme of hydro ecological investigations in AMP8 will help ensure that the correct level of ambition is set to ensure a long term sustainable abstraction regime.
	We would like to highlight that experimental data within the National Park highlights high levels of water poverty within the region, suggesting that our communities already pay a significant amount for their water supply	We agree that water poverty is a very important consideration for WRW. Analysis by CEPA for Water UK[1] shows that the three water companies with the highest proportion of customers facing water poverty are Hafren Dyfrdwy, Welsh Water and United Utilities. The distribution within those company areas is not even, and some

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		localities, like the Brecon Beacons National Park see particularly high levels of water poverty. We therefore have a responsibility to ensure that decisions on water resources are taken in this context, so that average bill levels are affordable and any investments are efficient and well justified. The water companies also offer social tariffs, debt support and other schemes to help those who struggle to pay their water bills.
	The Brecon Beacons National Park Authority is currently working in partnership with WELSH WATER on the development of the Mega Catchment project. There is significant potential to utilise this partnership to develop and implement landscape scale projects to support: - Restoration of ecosystem function, resilience and connectivity - Water quality and quantity - Reduction in costs of water treatment - Nutrient management - Climate change adaptation through carbon sequestration Recreation and landscape amenity improvements - Reversal of biodiversity decline and nature recovery - Flood risk mitigation and alleviation. We would be keen to work with yourselves and WELSH WATER to develop this opportunity for inclusion within your final adopted Water Resources Plan.	Welsh Water's water resources and catchment teams are working closely together to ensure that its WRMP is aligned with the Brecon Beacons Mega Catchment project.
Businesses		
RWE	Power stations require access to water for process and cooling, now and in the future. Furthermore, there is strong evidence to suggest that the water required by the energy sector will increase significantly beyond 2030 as technologies such as carbon capture utilisation and storage (CCUS) and hydrogen begin to form part of the generation mix in the UK. It is therefore crucial that the water	We agree with this point and are endeavouring to reflect these needs as best we can within the Plan. We are grateful for the assistance of Energy UK in providing evidence to support future iterations of the plan.

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	needs of our sector are properly accounted for to avoid jeopardising the UK's decarbonisation plans and to ensure continued security of supply in the electricity system.	
	The plan refers in several areas to updated forecasts for non-public water supply (non-PWS). It is important that the most up to date and accurate predictions are used to inform the draft and final plans. RWE feel that the figures quoted in Table 3 on page 40 are not the most appropriate. Engagement between WRW and EUK (of which RWE is a member) began in the months leading up to the publication of this emerging plan but had not reached a stage that allowed these forecasts to be updated. EUK (via the Joint Environmental Partnership [JEP]) have undertaken significant work on future energy scenarios and their implications on possible water requirements for our industry up to 2050 (Gasparino and Edwards 2021), this work has been shared with WRW. It is vital that this engagement continues and that the best available information is used to inform the plan in order to ensure it is fit for purpose and does not compromise the country's ability to achieve net zero in the most efficient way.	We are grateful for the most recent detailed discussions we have had with Energy UK and for the new numbers that have been provided for the draft plan.
	RWE notes that on page 26 of the consultation document it states that in preparing your supply demand balances the scale of non-PWS abstraction was determined through looking at the 'fully licenced' and 'recent actuals' consumptive abstraction across the region. Comparing 'recent actuals' with 'fully licensed' and assuming the difference is headroom that can be utilised elsewhere should not be used as an indication of future water availability. Power, for example, may currently show significant 'headroom', however, as is detailed above and further in the work by EUK, water demand from power is likely to increase significantly from around 2030. The timescales over which historic abstraction is analysed can be very important; if too short a timescale is used then important	This point is well made. We are aware of the need of operational power stations to retain the ability for peak generation and the water needs that carries. We will ensure this point is clearly made in the next version of the Plan. We are also aware of the concerns raised by the Power Sector over the age of data we have been provided by the Environment Agency.

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	cycles or changes can be missed, and exactly how 'recent', 'recent actuals' are, is also important.	
	Page 41 of the plan discusses some of the differences between PWS and non-PWS with regards to flexibility around the point of access to water. This is often a single location, the abstraction point, for non-PWS, whereas PWS are often able to supplement water lost/removed/unavailable from other areas of its network. RWE welcome this acknowledgement of the difficulties that non-PWS abstractors can face. In section 5.3.2 Non-public water supply options the plan notes that there has been clear feedback that assessment and engagement needs to take place at a very local level. Although RWE agrees that a local catchment approach is important, it should be remembered that the power sector differs from the water industry in that it exists in a fully competitive market.	Noted. We agree.
	Also noted in Table 4 is the work WRW are planning to look at the water needs for hydrogen production. EUK have already undertaken work in this area, engagement should continue to ensure any knowledge is shared.	Noted. We are grateful for the continuing support and input from Energy UK and the power sector companies.
	An area of concern for RWE is the proposal for transfers to other regions; the Severn-Thames and Grand Union Canal transfers...It is not clear from the plan what the implications of removing this source from the Trent will be, or if it has been assessed in terms of the impact on downstream abstractors.	There are specific projects set up for each Strategic Resource Option, to explore their benefits and drawbacks. The Minworth SRO project is assessing this specific question.
	RWE welcomes much of the approach taken by WRW in its emerging regional plan in terms of engagement with the power sector, acknowledgement of its future water requirements and some of the difficulties it faces with regards single sources of supply. However,	The Minworth SRO project is assessing this specific question.

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	we are concerned that the implications of some of the strategic options, specifically the transfers supported by the Minworth effluent, could have severe consequences for water reliant power infrastructure downstream	
Everflow Water	We request a wholesaler commitment to collaborating with retailers in the plan, and a more detailed plan for how it will deliver demand reduction in the NHH sector. We urge wholesalers to roll out smart meters to NHH customers as quickly as possible, and share their plans for this with retailers. We would like to see leakage reduction and water efficiency prioritised much more highly by wholesalers, working collaboratively with retailers to deliver real results. We would like to see more detail about wholesalers' approaches to managing peak demand - particularly how non-household interests are traded off against domestic customers' needs. We would like customers to have choice/competition in delivering water efficiency, so do not think wholesalers should be offering these services directly to customers, but we are open to wholesalers offering such a service to retailers as part of a competitive market. It would be useful to understand the anticipated split between leakage and water efficiency work.	All companies are part of the national groups working with retailers to improve collaborative working on non-household water efficiency. Below we have detailed the activities of two of our core member companies. Severn Trent is currently trialling the best approaches to delivering water efficiency with non-households through Green Recovery funding, which includes working with the Department for Education to deliver water efficiency audits and remedial work in schools. A second trial will be to deliver water efficiency audits with different types of business before publishing an open tender to complete 3000 audits in the next 3 years. We will use the information from these trials to inform our WRMP and Business Plan. Our intention is that any non-household activity included in our Business Plan will be set out in an open tender for delivery. As part of the South Staffs demand management plan, the company is looking at the opportunities to reduce demand in the non-household sector as well as the household sector. They have already begun engagement with Retailers on this topic to understand the opportunities and help develop the potential options to deliver these required reductions. These will form part of their demand management plan.
Creative ITC	We have developed (in conjunction with United Utilities / SES Water / Affinity / others) a new solution that can spot 3 types of leaks (DMA / Supply pipe / in-home) and work with home owners to reduce PCC by up to 37% (145 down to 103 in trials SES Water). In short we can reduce supply demand, thus lowering Electric bill &	To achieve long term leakage targets, innovation will be required and we welcome opportunities to explore potential solutions with third parties.

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	carbon footprint. We would love to explain more and show a live demo. https://waterfallbeyondsmart.com/	
Arqiva	'Smart' AMI water meters are an already available solution that can support the delivery of long-term objectives for reducing water demand and can enable industry to be flexible in responding to future environment scenarios. There is a clear need to accelerate the deployment of advanced smart metering, given the increasing effects of climate change and anticipated fluctuations in water supplies. We need to rapidly speed up the roll-out of this technology in order to ensure the delivery of its long-term benefits to the water sector, consumers, society and the environment. Whilst on p.69 of the Emerging Plan it is recognised that there is a "very high" chance that water efficiency measures, including smart metering, will be adopted as a solution, the plan needs to focus far more on the role of smart metering and advanced AMI technology and ensuring that the benefits can be realised as soon as possible. In the draft Regional Plan to be published in Autumn 2022, WRW should specifically highlight AMI smart metering as the leading household demand management solution as a result of the clear benefits it offers as outlined in this submission. There is a positive investment case for smart water metering. The expenditure on smart water metering is more than offset by cost savings on leakage control, network management and avoided costs of other water resources. Arqiva firmly believes that in future iterations of the Regional Plan, WRW should encourage the accelerated deployment and prioritisation of AMI smart water metering by water companies	Adopting the latest metering technologies in a cost effective plan will play an important part in realising metering consumption savings, and offsetting other supply investments. We are exploring technology options for the proposed new meter fits, and replacement of existing meters alongside appropriate assumptions for the benefits of each meter type. This will ensure our plans are cost benefit optimised.
Windermere Lake Cruises Limited	We have long contended that a strategic water network should be established. We are particular concerned to note that the United Utilities Strategic Resource Zone is classed as one of the three high concern zones in the region. We therefore reiterate our previous comments that investment should be made to connect the Strategic	The United Utilities Strategic Zone is classed as high concern in the problem characterisation because of the potential impact on the zone from water trading and the scale and complexity of the zone. The purpose of this classification was to inform the assessment approach for the zone and we therefore adopted a full and robust

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	Resource Zone to Kielder, to provide the necessary contingency against future uncertainties.	assessment approach. This classification does not indicate a particular level of deficit or drought risk.
	We note the intention to reduce average usage, we believe that the only way this can be achieved is by mandatory metering.	Metering is an important tool alongside engagement to help increase consumer awareness will help drive average water usage (PCC). These measures, alongside coordinated Government interventions around Water Labelling, improved Buildings and Water Fittings Regulations and third party partnership working will all help drive behaviour change and reduce demand. Metering alone will not deliver the long term ambitions to reduce PCC to 110 litres/head/day.
Trade Associations		
National Farmers' Union	The NFU asks that the WR West Regional Plan looks to provide a detailed understanding of the deficits that the agricultural sector faces across the West. Page 24: Figure 5 does not show agriculture as being a top water user in the Sherwood Sandstone catchment – this ought to be changed in order to prioritise agricultural production and solutions which support this sector? The NFU asks that WRW work at a sub-regional / catchment level to fully understand the implications of water resources within those catchments.	Based on the evidence we have we do not see a predicted deficit for agriculture in the Nottinghamshire Water Resource Zone. We would be grateful to receive any information you have that may change this view.
	Page 41 states that "the non PWS sectors have indicated that they are eager to be part of the solution to address our deficit issues in a sustainable manner". "Therefore this represents an area we are keen to explore ahead of our draft plan submission in autumn 2022". The NFU welcome the holistic approach to regional planning and it is pleasing to see further work will be explored – what does this look like in terms of timescales and engagement? Provide a timeline for working with the agricultural sector to understand the options and how they support the short, medium and long term risks of water shortages.	Noted thank you. This has been addressed in the supplementary note for non-PWS agreed by WRW Senior Group on 8 March 2022. Also see Appendix J which provides updated information on the non-PWS elements of our plan.

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	Within page 5 the plan states "we believe the options we identified so far will help increase our PWS resilience to extreme droughts and help us meet future demand". Has this analysis to options been applied to the agriculture sector to ensure the same can be said? The NFU asks that the WR West Regional Plan looks to provide assurance that regulation will work alongside the proposed options to secure water resources for a sustainable future for agriculture and to fully explore the financial implications (capital and operational costs) of the options available to the agricultural sector and to explore funding opportunities.	We can provide information to support the development of resilience within other sectors but regulation is a matter for the Environment Agency. We would also be happy to explore joint options between water companies and between sectors to develop water resources options that increase resilience within catchments.
	The NFU asks that agriculture is categorised as a priority non PWS sector. It is understood that, with a requirement of 4,505ml/day, the PWS sector is the major user of water across the region however, water required for the agricultural sector is significantly important for food security and the environment benefits that sustainable land management delivers.	We agree that agriculture is vital for national food security and presents great opportunity for sustainable land management.
	NFU welcomes clarity on the requirements for the agricultural sector across the WR West area. Of the 326ml/day required, it is said that; spray irrigation accounts for 59ml/day, other agriculture accounts for 7ml/day and agriculture general accounts for 15ml/day. Can we be clear what these definitions mean? For example, how is aquaculture treated within these calculations? In addition, spray irrigation requirement is said to increase from 58.1ml/day to 84.3ml/day in 2050 – does this account for all spray requirements across the agricultural sector? And are we confident the data is an accurate representation of future agricultural requirements as it is likely that some sectors would need additional irrigation in order to support food production? How are future requirements for livestock watering considered within the sectors requirements? This has the potential to be an area of increasing demand due to climate change. Also, in 2021, WR West collaborated on updated dataset, "developing new forecasts of our future water supply availability	The definitions of water use, i.e. 'spray irrigation', 'horticulture' etc. are derived from the categories within the Environment Agency's abstraction database. A list of the codes can be found here: sciencesearch.defra.gov.uk/Document.aspx?Document=14702_AppendixA_WRGIS_NALDCode_Groupings.pdf We are not confident of the accuracy of water use for spray irrigation. For example much of this use is seasonal and the only information we have to work with is a five-year average figure for abstraction between 2010 and 2015. We would be grateful for any information the NFU is able to provide that may increase our understanding of agricultural water use now and in the future.

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	and water demand". Has this been done for all sectors, not just PWS?	
	Within the regional plan, it states "*sustainability starts with a decrease in use*" – how is this being explored within the agricultural sector as part of the regional plan? Particularly in light of the forecast increase in demand for 2050. Page 6 adds, "*we are encouraging other sectors to drive down their water demand too*" – again, we would ask, how is this being discussed with the agricultural sector? On page 64 the document states that WRW are seeking to work with non PWS sectors to decrease demand "we are also aware that some sectors need support (i.e. farming sectors) so we will seek to understand how we and our regulators can support them in the future". The NFU are currently having discussions with WR West about the non-PWS sector. The NFU remains concerned about reductions in abstraction, particularly where that impacts upon food production. The NFU also seek to understand how aspirations for reduction fit with forecasts for increased demand for the agricultural sector. The NFU would like to thank WR West for the efforts they have made to engage with the agricultural sector via meetings for our farmer members, some of which are ongoing. For example, in the Nottinghamshire sandland we have offered WRW a task and finish working group to better identify needs and trends going forward in this key area for UK root production following the meeting with abstractors in February 2022.We are supportive of moves towards usage efficiency but need reassurance that the basic needs for food production will be met. The Emerging Plan focuses on reducing water demand and increasing usage efficiency. Within an agricultural context, this is seen to focus on irrigation. Within many parts of the West, grass and livestock on the primary enterprises who can be heavy users of potable water, particularly dairy farms. What work is being done to	Thank you for your support in these comments. We are seeking to support sustainable use of water wherever we can. Abstraction reduction is fundamentally a matter for the Environment Agency to determine and engage with affected sectors. We have done our best to communicate this point to the Agency upon your behalf. We would be grateful for any information the NFU can supply on farms that have both an abstraction and a public water (potable) supply. This is proving to be a difficult area to investigate as it is difficult to draw together information from different sources whilst maintaining personal data privacy.

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	look at building resilience within these enterprises within the agricultural sector which will support potable water efficiencies?	
	Page 7 looks at which catchments have been prioritised – how do these affect agriculture? Some of these options include abstraction reduction, has the impact this has on agriculture been examined? We are aware that abstraction decreases have already been made in the agricultural sector as part of the abstraction reforms, particularly in sensitive catchments, as a result of this some abstractions have already been fundamentally changed and investments have been made in storage and alternative supplies. Investments in storage and efficiency are extremely costly and sources of support will be required for some sectors (horticulture, combinable crops and livestock). Page 8 looks at the Midlands (Sherwood sandstone) and states "abstraction from these aquifers must be limited to ensure we do not cause environmental deterioration". The plan refers to the fact that as a result, a range of new water options will be needed, with enhancements to existing assets and transfers from other areas. This area is home to specialist horticulture growers who are reliant on water to support their production. It is not seen that the Midlands forms a prioritised catchment – this is causing confusion among farming businesses in the area and its status should be clarified. How does this approach support agricultural businesses with regard to new options being reviewed and implemented, enhancements to existing assets and transfers? Catchment prioritisation on page 60 must therefore include agriculture in the midlands. It is noted that there is stakeholder engagement in the Idle, Worcestershire Middle Severn and Wyre and further opportunities in Wales catchments however, the NFU would ask this is extended to the Midlands given the agricultural priority?	On abstraction reduction we have taken the position that it is for the Environment Agency and not WRW, to communicate any potential reductions in non-PWS licences to stakeholders. With regard to farming in the Midlands you make a very good case for additional attention for this area in the Plan. The distinguishing feature in this catchment is perhaps the prevalence of time-limited licences and the consequences of non-renewal for agriculture and food security. We met to discuss these issues in detail with farmers in the area in February.

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	On Page 11 the stated aims of the Regional Plan are predominantly focused on PWS, therefore we would like to see a specific bullet point to cover the aims for the non PWS sectors/users. "Our ambitions" on page 12 does not refer to the agricultural sector and it should. Agriculture needs: o Resilience to drought o Resilience to abstraction reductions o Resilience to climate change impacts o Resilience to growth	Water Resources West's ambitions for drought resilience reflecting growth, climate change and abstraction reduction apply to all the abstracting sectors. We have included more information in the draft plan on the agricultural sector and its needs.
	Page 67, water company plans account for c90% of the water needs within WR West "*other abstractors will also need to consider choices in relation to how they meet their future needs*" In order for this plan to be a truly multi sector approach, the plan needs to bring in more balance between different sector requirements and outline the steps that will be taken to support non PWS sectors with future water resources management planning.	The fundamental in this point is that it is for individual abstractors to plan their water needs. WRW will support this planning through the provision of information and within the WRW plan we will seek to ensure that there is water available for all abstractors in the future.
	Within Page 80 the emerging plan states "we are advocating a collaborative catchment-based approach to supporting non PWS abstraction to seek efficient options for their water needs". The NFU asks for clarity as to what this means for the agricultural sector. Farming is extremely vulnerable to droughts, and we face difficult decisions surrounding the question of 'who gets the water when there isn't enough to go around?". We need to redress this imbalance by improving the levels of service experienced by farmers in their access to water. We believe that there must be better and more equitable ways to manage droughts that recognise the essential nature of water for food production.	This point is well made. It is however important to differentiate between 'environmental drought', which is a matter for the Environment Agency to manage and drought in terms of public water supply which is managed by the water companies. This is not a subject that we have explored in great detail and we would welcome further engagement with NFU on this point.

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	Page 58 describes the environment destination, it is important that the contribution the agricultural sector can make to delivering environmental ambition is recognised.	We agree that farm businesses have a vital role to play. Appendix J describes this sector and we have had some useful meetings and farm visits with the NFU to gain further insights to this sector. This is a good point which we have attempted to address in the non-PWS appendix.
	Page 44 highlights the fact that "the issue for the non PWS is a very local one", given many rely on a single abstraction site, therefore assessment and engagement has to take place at a local level i.e. catchment prioritisation approach. Further work is required to review the agricultural future water resource demand on a catchment basis to enable the toolbox of options to be explored within this regional plan.	Thank you, we agree.
	Page 18 point 2.1.3 highlights local nature recovery strategies and the agricultural sector is not mentioned within this but could, as is described above, be part of the solution. Local nature recovery strategies will have a key role to play in the targeting of resources under the new Environmental Land Management Scheme which will be a key mechanism for delivering additional public goods on farm land. There are currently many competing demands on farm business with new ambitions for biodiversity net gain and carbon markets to name just two. Therefore, the plan needs to be clear on how it aligns with other land management priorities in order to reduce the risk of duplication and to help farm businesses engage with the process.	Agriculture and rural land management is key to the health and resilience of our catchments. We need to establish how we can work in partnership and understand specific catchment needs and priorities. There is the challenge of the number of farming business we need to influence and collaborate with. With catchment specific understanding we can seek to influence funding streams and joint bids in catchments and promote opportunities for farming business that will support catchment improvements and resilience.
Energy UK	We are concerned that the Strategic Resource Option to transfer the Minworth effluent from WRW to WRSE could adversely impact on all power sites downstream of the confluence of the Tame with the Trent, including those in WRW and WRE. The volume of this option, 100 Ml/d, is more than the consumptive water use of a single power station. We are particularly concerned that if the Minworth diversion	The Minworth SRO project is assessing this specific question and is exploring mitigation options if it is a material risk (e.g. bankside storage to support the North Muskham hands-off flow).

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	goes ahead, any Hands Off Flow conditions associated with power station abstraction licences will kick in earlier, preventing the stations from operating. In addition to jeopardising security of supply, plant owners could potentially suffer significant financial penalties if a station fails to deliver a contracted obligation. Sharing water resources outside of the region to reflect national challenges would depend on what the transfer would be. The source area should not suffer any adverse economic, environmental, wellbeing, resilience or water quality impacts. However, regions other than the source and recipient areas could be affected. Regions other than the source and recipient areas should not suffer adverse impacts either. r. For example, the River Trent is a very significant water resource for the power sector. Any options that transfer water away from the River Trent have the potential to adversely affect the operation and investment opportunities for power/hydrogen plant on the Trent.	
	Please note the power sector abstracts water from various water sources e.g. rivers, canals and groundwater, which is regulated under the Environment Agency's abstraction licensing scheme with associated charges. It is extremely important for power stations to have continual access to their licensed water volumes to deliver on contractual obligations and to provide electricity system security. Minimising water use at a power station can have undesirable effects such as reducing the overall efficiency of the station, leading to greater emissions of greenhouse gases and atmospheric pollutants. Power stations have Environmental Permits to operate, under which resource efficiency is monitored and reviewed regularly.	We agree with this point.
	In the future there may be green hydrogen plant that require water from either river abstraction or public water supply. The transition to net zero, on a currently unknown pathway, is likely to increase water	Duly noted. We are grateful for the continued support by, and engagement with Energy UK.

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	demand with increasing uncertainty for power/hydrogen production, with the likelihood of significant carbon capture usage and storage developments and hydrogen developments. At this point in time it is not possible to know which companies or locations will be used for future plant. However, the Energy Sector is keen to continue to engage with WRW to help WRW understand our potential future water needs and the uncertainty associated with these.	
	Page 40 of the WRW Emerging Plan states "The increase between current needs (325 Ml/d) and those we expect by 2050 (388 Ml/d) are driven by sectors such as spray irrigation for agriculture, chemicals, food and drink, as well as the power sector's ambition to achieve net zero by 2050". The power sector is aiming to achieve net zero by the mid-2030s. This will contribute to the UK's net-zero 2050 target. Many organisations are relying on the power sector to decarbonise to achieve decarbonisation themselves.	Duly noted.
	Table 3 – In terms of historic water use, individual sites will be able to provide up to date information of their water use for the past few years, but Energy UK does not gather this data for the sector as a whole. We can provide updated values for future water use by the power sector.	
	We can help WRW extract ranges of values for potential future demand from the Power Sector. The JEP doesn't have a "best" prediction, we have a range of scenarios. Each scenario has a median, with a 2.5% to 97.5% range. Due to the change in the WRW/WRE boundary since the report was written, some of our numbers may need to be reworked, or it may be preferable for the JEP to supply updated model output using FES21 data.	WRW would be grateful to receive updated information.

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	Page 44 The text notes there is enough water overall for WRW projected non-PWS growth and this is available within current licensed volumes. However there may not necessarily be sufficient available at each non-PWS site. At this point in time, it is not possible to know the locations of future sites.	This is an uncertainty we will highlight in the next iteration of the plan.
	Figure 17. The carbon emissions refer to carbon emissions from water options. The line has to be drawn somewhere. However, emissions from the power and other sectors are not included, but could be affected by the decision making process.	We agree that other sectors have carbon emissions that are affected by water availability. The information is not available to understand how all of these impacts would manifest. However the abstraction licencing regime ensures that other abstractors' rights are not derogated by new licences. Our decision making seeks to promote options that bring benefits in terms of water availability and quality for other abstractors and in this way we are supporting the other sectors, which could be beneficial for the carbon emissions reductions.
Rainwater Management Association	On behalf of the UK's water reuse sector, comprising the manufacturers and suppliers of rainwater harvesting and greywater recycling systems; these are designed to reduce mains-water consumption by around 40% on housing, and around 80% on appropriate commercial buildings. We have noted with interest the above consultation, and our input suggestions are intended to be constructive. We believe in particular that the plan should integrate with other aspects of surface-water management, such as minimising future flood risks. Consideration might be given, for example, incorporating attenuation capacity in reservoirs where appropriate, the costs incurred being diverted from flood-avoidance budgets. Our members would also particularly welcome discourse within the Plan concerning WRW's approach to the potential impact of widespread use of rainwater harvesting and greywater recycling in helping to future-proof water supplies. A recently completed very positive study1, undertaken on behalf of the Waterwise organisation, concluded that re-using water in these ways would	We need to consider all possible options to help reduce demand in the longer term and are keen to explore opportunities around rainwater management and water re-use, both from a WRMP and DWMP perspective. Government action is required to update building and water fittings regulations, mandating higher levels of efficiency for new homes and to help improve the efficiency of existing housing stock.

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	also assist in future flood prevention and reduce the carbon footprint of water-usage.	
	Can you please advise whether you already have, or are in the process of producing, a plan for future water supplies in your region?	The draft plan is a plan explaining the actions we are taking to secure our supplies in the Water Resources West region for the next 60 years.
Country Land and Business Association	The CLA welcomes the efforts within the regional plans to understand future consumption of the non-PWS sector and to work closely with agriculture to understand how to reduce uncertainty around water forecast and demand. Within the preferred plans, it will be important to ensure sufficient estimates for water for agriculture to 2050.	Thank you. We agree with your point.
	In rural areas many homes are supplied by private water supplies managed by the landowners. In these situations there are no legal routes to require water users to reduce the demand.	You are correct in this point. We would however encourage all water consumers to use water wisely.
	The CLA supports water transfers to ensure that there are sufficient supplies for all water users.	Thank you. We agree with your point.
Environmental or community groups and charities		
Gloucestershire Wildlife Trust	Gloucestershire Wildlife Trust would be opposed to a largescale water transfer scheme from the Severn to Thames catchments. The proposal goes against the concept of resilience as it does not look to address the underlying issues that result in an inadequate water resource in the southeast of the UK. Measures that look to decrease water use by consumers and businesses (both locally and nationally), improve and increase storage of water in the winter and during periods of high rainfall and that encourage farmers and landowners to abstract less through measures that improve soil structure, decrease water requirements and/or that encourage water storage on site would all be preferable. We would question	We agree that more sustainable options should be deployed and that costs to the consumer should be proportional and moderate. We also agree that initial costs for public water supply investments should be carried by the water companies and their investors. Financing costs of that investment are then reflected into their customers' bills. The fact that sustainable and affordable investments can be made in this way is one of the great benefits of the regulation of the water industry in England and Wales. We cannot agree however that cost should be disregarded. Affordability is an important consideration. Analysis by CEPA for

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	the long-term sustainability of such a scheme, especially if the forecast is for a deficit in supply in some parts of this region. More sustainable options should be deployed regardless of cost, the cost to the consumer should be proportional and moderate, but the initial costs of adopting a sustainable water resource system should be carried by the water companies and investors. More detail is required on the solutions to future needs - what is needed when and by who on both the supply side and demand reduction side. We would expect this to be addressed in the next iteration of the plans.	Water UK shows that the three water companies with the highest proportion of customers facing water poverty are Hafren Dyfrdwy, Welsh Water and United Utilities. We therefore have a responsibility to ensure that decisions on water resources are taken in this context, so that average bill levels are affordable and any investments are efficient and well justified. More detail on the solutions to future needs is provided in this draft plan and the water companies draft water resources management plans.
	There is currently no commitment to meet environmental targets (e.g. 25 Year Environment Plan/ Environment Act 2021/ Natural Environment and Rural Communities Act 2006) for habitat creation, climate resilience or biodiversity measures. The regional plans need to clearly identify the future water needs of the environment. This is crucial if we are to avoid the mistakes of the past where over abstraction and subsequent environmental damage took place and is taking decades to address. We want to see the future needs of the environment met first and then solutions can be found to meet the needs of other water users. Any future iteration of the plans should include an assessment of how any proposals are likely to impact the delivery of the 25 Year Environment Plan and the creation of a National Nature Recovery Network. There needs a more joined-up approach between the different regional plans. Consideration also needs to be given as to how the plans will comply with NERC Act duties which require measurable objectives as well as including an assessment of the carbon cost of the plan. We would encourage plans to be aiming for carbon neutrality. We would call on WRW, and other regional groups, to show leadership in this area by committing to at least 20% biodiversity net gain.	WRW has set a number of environmental outcomes for environmental destination (see WRW Update on resource Position February 2021). This expresses the outcomes in four pillars and includes the elements you have outlined in the response. Although not presented in detail in the pre-consultation plan, we are evaluating a range of holistic solutions to enhance catchment resilience and we have adopted multi benefit analysis to do this. Given the scale of the WRW region we have initially focused on 3 catchments in the region, the Worcestershire Middle Severn (the rivers Stour and Worfe), the River Idle in the East Midlands and the Wyre in the North West. In these catchments we have worked with local stakeholders to produce list of catchment options which include activities such as river restoration and wetland creation. These will bring multi benefits and can be measured against a range of outcomes as you suggested in your response. In addition water companies will be implementing a wide range of catchment measures to address water quality, biodiversity and carbon targets and water companies and WRW will identify opportunities for synergies both internally and with external parties. We are also developing how we measure the benefits of actions that will be included in the plan and track progress against the outcomes we have set for WRW.

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	Around 25% of public water supplies are used outside the home in businesses, schools, hospitals, etc. Yet the plans say very little about how this water is used and whether these "non-household" users can be part of the demand reduction solution. We need to see this gap addressed in the next iteration of the plans and more evidence of collaboration with the water retailers who sell water to non-household customers in England. Any increases to bills should apply to all sectors and not just private households. The future water needs of non-public water supplies sectors, like energy and agriculture, are really significant in the WRW region. Therefore, we want to see more evidence that these sectors are also committing to carefully manage their future demand in a similar way to the twin track commitments required for public water supplies. The WRW emerging plan includes a useful table which sets out possible options for other sectors and this could be enhanced and further developed in future iterations of the plan.	The point on demand management for non-PWS sectors is well made. WRW and water companies do not, however, have any levers other than encouragement to achieve this. We are assured by the sectors that we are engaged with that they are using water in the most efficient and optimal ways they can.
Canal & River Trust	The emerging plan has stated that there is no increase in Trust abstraction allowed for over planning period, which we believe is a sensible approach at this stage, assuming there are no reductions in non-PWS licence conditions. The Trust will continue to work with WRW to WRW 650 Ml/d WRN 340 Ml/d WRSE 205 Ml/d WRE 33 Ml/d WRWC 29 Ml/d Canal & River Trust - Annual Average Abstraction Ml/d Canal & River Trust – WRW Emerging Plan Consultation Response 4 better understand longer term demands and impacts for abstractions on our existing network.	Noted. We are grateful for the continued support of the Trust in developing our Plan.
	The Trust are encouraged to see that the WRW emerging plan recognises that existing canal transfers play an important role for public water supply in the region and that there are several opportunities for transferring water between the regions using the existing canal infrastructure. Clearly, as the owner of the transfer infrastructure, we are directly involved in the evaluation of the Grand Union Canal Strategic Resource Option and recognise the	We welcome the Trust's involvement in Water Resources West and in developing these options. We look forward to this continuing as the options are developed further and as future opportunities are identified.

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	interdependencies of the inter-regional reconciliation process. We will continue to monitor this as the WRW plan develops. The Trust also recognise the eight transfer options referred to in Appendix C of the emerging plan and will continue to work with the various water companies to develop these further. We will be particularly interested to understand how these canal transfers will be assessed and progressed. Undoubtedly there will be future transfer opportunities identified in the region that utilise the Trust's extensive infrastructure, that could have multi-sector benefits and we look forward to developing these further with WRW.	
Blueprint for Water	We are pleased to see the plan has modelled the Enhanced environmental destination scenario and is looking at the implications of delivering it on the supply demand balance. We are also pleased to see the plan committing to preferentially selecting options that deliver multiple benefits, utilise nature-based solutions and will deliver an enhanced level of net biodiversity gain.	We identified a total of 89 options for our English prioritised catchments and selected a few to be taken through to further assessment. The assessment is still ongoing at the time of publication of the draft plan. Updates in relation to the selected options for implementation will be provided in the final plan. For more details see Section 7.2).
	The plan relies heavily on demand reduction. Therefore, in the next iteration we expect to see a lot more detail on the demand management actions that will be taken (e.g., smart metering) alongside the level of investment needed. We are pleased to see the plan looks at the role that other sectors can play in reducing water demand management as well as just looking at their future needs and would like to see more evidence of commitments from these sectors to play their part in reducing demand.	We have now provided the selection of demand management measure that will help us meet our needs (see Section 5.3.3. and 7.1).
	We would also like to see more evidence of how the plan contributes to delivery of the water industry 2030 net zero commitment. This includes information on the relative carbon emissions from alternative supply and demand side options and pathways.	Customers and stakeholders place particular weight on reducing and avoiding carbon emissions as shown in Sections 5.5 and 7.5 of the draft plan. Details of the carbon emissions of each option selected are show in the Options Appraisal Summary Table (Appendix H).

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Keswick Flood Action Group	February 2022: The government's strategic priorities for Ofwat - Greater resilience to flooding "We expect Ofwat to: • challenge water companies to deliver greater flood resilience for their own infrastructure and services, and where appropriate provide wider benefits to their customers and the wider community • challenge and incentivize the water companies to identify and deliver greater customer, societal and environmental benefits from their water and wastewater infrastructure and systems, such as using reservoirs to provide greater flood resilience. This should include leveraging funding from third parties where appropriate • challenge and encourage water companies to work in partnership with others to support and, where appropriate invest in flood resilience measures that secure wider benefits for them, their customers and the wider community • challenge the water companies to regularly review and fully understand the current and long-term flood risk to and from their infrastructure and systems and identify opportunities to increase resilience" Given that the Government's strategic priorities for Ofwat (Gov.uk website, 2/2/22) includes a section entitled "Greater resilience to flooding" the plan does not clearly identify how flood resilience will be addressed and improved.	The Government's strategic priorities relate not just to water resources but to the full range of activities covered in companies business planning. The WRW regional plan is not seeking to reduce flood risk as a primary aim, but is seeking to meet water resources needs in ways that can bring additional benefit, e.g. to flood risk reduction among other things. The way we have prioritised the selection of water resources options which benefit flood risk is set out in Section 5.5 of the draft plan and an assessment of the benefits is in Section 7.5.
	Given that the WRW region is relatively resource rich compared to the other regions and will need to transfer water to those regions as climate change continues to impact, the national priorities and how they will be met is not clearly communicated in the plan.	Please see Section 5.4 of the Draft Plan which contains narrative addressing this point.
	Achieving the supply demand balance (SDB) is highly dependent on fully meeting the leak reduction and PWS demand reduction targets. There is no indication in the plan of how a high, but partial, success (e.g. meeting 80% of the targets) would impact. Table 2 shows the	We have now included a scenario in the draft plan that shows the impact of not achieving the demand reduction policies (see Section 7.7).

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	impact of achieving 80% of the benefits alongside the 100% as given in the reconciled SDB spreadsheets. From this it can be seen that even relatively successful reductions in leaks and PWS demand leave the zones in deficit hardly improved.	
	Looking at the reconciled SDB it appears to us that the main issue across the WRW region is lack of inter-zone transfer capability combined with storage, rather than lack of deployable output itself. We feel that this is not clearly addressed within the plan. Suggestion for better resource zone inter-connectivity and storage reservoir(s) The idea outlined below does not seem to be considered within the draft plan. It may be that it has already been considered, however it appears to us to provide a strategic solution that makes the best use of available water resources, combined with better inter-connectivity and flood risk reduction options. • All water balances are calculated on a "dry year" basis (Appendix H, tab SBD data guide, cells D6 and F6). • Therefore for an average year, and the majority of years, there will be more rainfall and a better water balance across the region. • If water were to be able to be moved between zones, then summing all the yearly reconciled supply demand balances for all zones (row 47 of each zone balance sheet) in Appendix H indicates only a small "dry year" deficit in 2025/26 (62 Ml/d) which becomes a surplus in 2035/36 and remains in surplus until well after 2050 (see Figure in Keswick Flood Action group tab). • This indicates that there is not a lack of water supply, rather a lack of water transfer capability within WRW. • One large water storage reservoir, sized similarly to the Queen Mother reservoir in Dachett, West London, (37 Gl), given sufficient connectivity between the resource zones, and filled during "normal" rainfall years, could provide enough capacity to mitigate the yearly "dry year" shortfall out to 2035/36 (after which there is a surplus) and be used for inter-regional transfers.	Intercompany / inter-zonal transfers have been assessed and have been included where cost effective. Transfers from Vyrnwy to Severn Trent and South Staffs feature as part of the emerging plan as does more effective shared use of Derwent Valley Reservoirs between Severn Trent and Yorkshire Water.

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	• Such a storage reservoir (or combination of reservoirs) could also allow enhance flood risk reduction strategies by transferring water before other reservoirs in flood risk areas become full and overspill. • A similar approach adopted nationally would probably significantly reduce the supply demand balance deficits in other regions and provide flood risk benefits.	
	How realistic is achieving 110 l/person/day by 2050? What is the plan if this is only partially achieved?	A wide range of factors will influence achieving the 110 l/p/d ambition. These will not only be those within the control of water companies to influence. Initiatives including metering to help customers understand their consumption alongside engagement activity to encourage using water wisely will be key. Working collaboratively with NGO's such as Waterwise to help promote efficiency will also play an important part. In conjunction with Water Company activity, the Government's actions to implement a compulsory Water Labelling scheme for water using products in parallel to improved buildings regulations and water fittings standards will be critical in achieving the ambition of 110 l/p/d. When developing our plans a range of future scenarios, including high and low demand, will be used and we will have adaptive planning options that will allow us to adjust our plan over time if required.
	How much water will need to be exported outside of WRW on top of the intra-regional exports of 215 (by 2031) +63 (non PWS by 2050) Ml/d to meet national requirements? Are the transfers in addition to the numbers given on page 5 for WRW supply shortfalls and what are the sizes of the transfers required? Can the requirements really be met simply through existing infrastructure and transfer routes? This seems surprising	We have included a clear statement of the transfer volumes out of region in the draft plan (see Section 7.3).
	Where can we find a list of the prioritised catchments?	The 3 prioritised catchments we are currently targeting for the implementation of catchment based solutions in the near future are

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		mentioned in Section 5.2 - Environmental destination planning journey.
	Mentioning only abstraction reductions is leading and blinkered. P5 says new water is needed. Abstraction should be optimised against both supply and environmental issues.	Our environmental destination is a longer-term strategy to improve our water environment, going above and beyond our current legal obligations. We have altered the text and structure of the draft plan to better emphasise this and to highlight that although abstraction reductions are the main driver of the environmental destination (as pet the National Framework requirements), we are considering a host of catchment based solutions to address other issues (e.g. water quality improvements. This is clearly explained in Section 7.2 of the draft plan.
	Why is there no plan for transfer from Welsh Water? Is there a national plan that includes such transfers?	Welsh Water is not currently in a position to promote external transfers of water.
	Points 1-5 are about the WRW region, yet the preceding sentence says that company level planning could not provide the strategic solutions needed across England. Where are those strategic solutions for the nation in this plan?	We have explained this more clearly in Section 7.3 of the draft plan where we described the Strategic Resource Options selected as part of our draft plan, to support the national need of becoming resilient to extreme drought events.
	What if "best value" for WRW is not necessarily the same as best value nationally? Where is this being considered and accounted for in this plan?	It is important that the plan we produce is 'best value' for the communities we serve. There will therefore be differences in the best value approach for each region, along with many similarities. The regions work together through reconciliation to ensure that the aligned plans are best value for all five regions.
	OUR AMBITIONS. Bullet point 4 "Develop options which provide environmental benefits (i.e. reducing flood risk, providing new habitats, etc.) and which are sustainable, in the long term." Besides this aspiration there are very few references to flood risk reduction afterwards in the report and certainly no specific proposals for implementation. ALSO including flood risk as an environmental benefit only is blinkered and inaccurate. It risks limiting breadth of	Since the emerging plan, we have undertaken more work in this area and have supplemented the weightings for each metric with customer informed ones (not only stakeholder). For flood risk, the customer weighting is much higher (0.77). This means that within the selection of options in our decision making models, greater emphasis was put on benefits to flood risk management.

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	ideas. Flood has major economic and social costs that spread over years as well as the damage to the environment. Our later comments on figure 18 (Definition of metrics and initial weightings) on page 53 queries the low weighting (0.28) allocated to flood risk.	We are not simply treating flood risk reduction as an environmental benefit. Flood risk is a separate metric and objective within our decision making method. This is due to the wider economic and social impacts of flooding.
	Where are the figures for water required by each region mentioned here, and the plan for which regions will supply it via transfers?	Each region's plan will include its own assessment of its water needs. For our draft plan, we have included links to the other regional groups' websites where those details can be found.
	The assurance process mentions only the member water companies and Jacobs, a contractor to those companies. Where and when the government agencies (Ofwat and the EA) participate do is this process and provide a national perspective?	Regulators are represented at WRW senior management group and CEO group meetings which review the plans as they develop. More details on our regional group's governance and assurance can be found in Appendix I.
	Please define "dry year demand" and how it relates both to an average year and to actual demand. For example was the 2019/20 dry year demand of 4505 Ml/d the actual demand for that period or adjusted in some way? I have previously seen a dry year defined as the 95 percentile for rainfall based on a 55 year historical dataset, which would suggest the figure is adjusted rather than actual.	The guidance requires demand projections to be initially prepared from a base year, and then a dry year uplift factor is applied to household consumption to represent the increase in demand that would be expected in a year in which a significant period of hot, dry weather is experienced. Similarly an adjustment factor is applied to the base year demand projections to prepare demand forecasts for a 'normal' year: a year in which demand is neither increased due to dry weather, nor decreased due to relatively cooler and/or wetter weather conditions. The dry year uplift is derived from a Met Office weather demand model which calculates historic weather dependant demand for each for the last 55 years (based on observed demand). We uplift outturn demand by a factor (dry year factor) which is equivalent to the 95th percentile of ranked weather dependant demand.
	How/why did Covid increase total water demand as people staying at home should just have shifted usage from business premises to the home, and decreased industrial activity should have reduced demand?	The lockdown measures as a result of the Covid-19 pandemic saw a significant shift in consumption to household use. A proportion of that increase was offset by reductions in non-household consumption which has now bounced back to pre-pandemic levels,

Organisation	Feedback received	Water Resources West's response
		however the impact on household use was greater and longer lasting. Industry wide research showed an increase of around 10% in in household use. Changing customer behaviours and habits including spending more time in the home (home schooling, working, not going out etc.), staycations rather than holidays away/overseas, increased outdoor use (gardening, paddling pools) will all have impacted on customers use. We are continuing to monitor to ongoing impacts of these changes on customer demand and what they may mean for future demand scenarios.
	Under Customer Views there is no mention of flooding. This comes as a surprise.	Flooding doesn't come across as a priority for customers in research studies focussed on water resources. However there are indications in more general research, e.g. CCW's Consumer Expectations & Priorities Report 2020, that some customers raise the idea that managing flooding should be part of planning for the future (although people were not clear whose responsibility this would be). In the CCW report, as in many other studies, for many consumers ensuring that water supply meets demand in the long-term is a more critical issue. To reflect flooding benefit into our water resource decision making we carried out quantitative research with customers to allow an appropriate weighting of flood management opportunities in our water resources option selection. In this WRW research, and our subsequent decision making, the weighting for flooding metrics is higher than for our wellbeing and multi-abstractor benefit metrics.
	A sceptic might say that this looks to have been purposefully led to produce the outcome that the companies want, i.e. use existing infrastructure and don't do anything new.	The diagrams in Figures 9 and 10 were developed by an independent customer research consultant to bring insight into the views of customers in the region. For more detail on this work please see appendix F of the draft plan.
	Stakeholder View: Mentions "Reservoirs for flood protection – getting balance right". This sounds promising. Later on it goes on to say "Environmental aspects, integrated catchment management	Yes, this should say flood risk reduction. Thank you.

Organisation	Feedback received	Water Resources West's response
	and opportunities for flood risk were priority areas." We assume it was intended to say flood risk reduction!	
	What if customer priorities conflict with national priorities? E.g. it may be right nationally to decrease resilience in one area for a gain in another area. Who brings this national perspective?	In our view it is not acceptable to decrease resilience in our area to benefit others, but there are opportunities to support others' needs while maintaining or even enhancing our resilience. We represent these views into national governance arrangements established under the National Framework.
	I sincerely hope no one was paid anything for Fig 11.	Some people find these diagrams useful, but we understand that not everyone does. They can be produced automatically by a computer program.
	Table 1 - Questions are environmentally focused. Concentrates on NFM solutions.	Table 1 in the emerging regional plan reported feedback from a consultation specifically on environmental destination. For the draft plan we have updated section 4.4 to include feedback from other more recent consultations.
	Table 2 shows only deficits. Looking at appendix H there are surpluses in many areas (e.g. United Utilities strategic 64 Ml/d in 2031) and total of all zones is a deficit of 88 Ml/d for 2031 and only 26 Ml/d by 2050. Please explain how that fits with highlighting the 215 total of deficits only?	Deficits show where there is a problem to be solved, and it is important to be clear on where the problems are and how much water we need to find. Zones that are not in deficit are not presented in the table but they are mentioned in the narrative.
	Table 2 and Appendix H seem to have the implicit assumption that transfer of excess water between zones (beyond the minimal amounts in row 6 of the spreadsheets in appendix H) are not possible. Is this correct and if so why?	The definition of a water resource zone is the largest area across which water resources can be shared so that customers carry the same risk of supply shortfalls. Therefore, by definition, excess water cannot be shared between zones without the development of new transfers.
	Deficit stated to increase to >400 Ml/d after 2050. However the region as a whole is actually in excess by 247 Ml/d by 2050 (summation of all 26 zones supply/demand balances), table 2 shows a deficit of 163 Ml/d based on summation of deficits only by 2050,	There are significant uncertainties in the longer term projections. However the forecasts show the sum of all the deficits is greater than 400 Ml/d. Also see the response to comments above.

Organisation	Feedback received	Water Resources West's response
	and there is no further mitigation built into the figures after 2050. Therefore the >400 Ml/d seems to be a highly misleading number.	
	Many of the non-PWS figures in Table 3 for recent and future abstraction are very close, as are the final totals. What are the uncertainties in the numbers?	Future abstraction numbers are calculated from national factors, e.g. 1.44 for spray irrigation and 1.0 for 'other' agriculture. This means that predictions for some sectors do not change, or only change by a little. The overall uncertainty in the numbers cannot be calculated but the base data is mainly Environment Agency data from 2010 to 2015. We recognise that there may be significant changes in use for some sectors over the last seven years.
	This is so over-parameterised that I am concerned any answer desired could be easily achieved. In this situation advocacy can easily hold sway but be invisible in the final output. How have you avoided that?	We follow the Water Resources Planning Guideline where applicable, and also the National Framework requirements. Our approach is set out in a series of methodologies which were approved by our multi-sector senior management group. See Appendix I for our approach to assurance and governance.
	PWS drought resilience has no number (weighting?) in box	Changes to the level of service for PWS drought resilience have not been considered for the emerging plan, but are being considered for the draft plan.
	Flood risk has very low weighting (0.28), yet it has major impact on the human and social wellbeing (1.96). The way that Fig 18 is drawn suggests flood risk is not part of human and social wellbeing.	We agree that flood risk has a major impact on wellbeing and we want to give it due prominence in our regional plan. Therefore it was important to include flood risk as a separate metric rather than combining it with other aspects of wellbeing. In customer research results that we are now using flood risk has a similar, but slightly higher weighting than wellbeing.
	Have the schemes in Table 10 already been through any part of the evaluation process set out in pages 49-63?	Yes, all feasible options have been though a formal options appraisal process as part of the Strategy Environmental Assessment - this is a legal obligation.

Organisation	Feedback received	Water Resources West's response
	Do these options also have to cover the non-PWS deficit?	No, the options on pages 73 to 79 of the emerging regional plan do not cover non-Public Water Supplies.
	Do any transfers outside of WRW come out of these projects or is that additional?	Options that might be needed to support transfers are included in this list. See the commentary column of Table 10 for more explanation.
	Range of bill rises by 2050 does not look that frightening (average UK bill currently ~£410 per annum) as long as steps are taken to protect the poorest members of society.	Duly noted.
	Is it a national directive that the receiving water company will foot all the bill for transfers and that the transferring company will therefore make money?	Ofwat sets principles for the pricing of bulk transfers of water between water companies.
	What is DO benefit from drought measures (row 42)? It is very significant for United Utilities strategic zone at a constant 91 Ml/d, turning a deficit of 87 Ml/d in 2024/25 into a surplus of 4 Ml/d without any other reconciliation measures.	This is the benefit of drought permits and water use restrictions detailed in the companies' drought plans.
Individual respondents		
Individual 1	Could you work to explore the option of micro-hydroelectric power generation in the mains drinking water supply? Cities in America have been putting turbines in public drinking water pipes to generate electricity. Even if the generation is small, it all adds up and might make the water grid carbon neutral at least. In the best case it might add to the current 2.2% the UK gets from Hydroelectric. Selling this power back to the National grid would generate revenue.	Thank you for your feedback. There are already a number of sites where hydropower generation is present within the water network. It isn't suitable everywhere as parts of the network are pumped, and therefore the hydropower turbine would impede the pumped flow requiring more pumping and greater energy use. Nevertheless as part of their net zero plans the water companies are looking for more opportunities to generate green electricity.
Individual 2	Your feedback requirements are the most complex that I have ever seen so I have ignored them. In any case some of them are	Thank you for your feedback. Responses could have been submitted online in a questionnaire format on IdeaStream and a number of

Organisation	Feedback received	Water Resources West's response
	irrelevant. Did I find it 'accessible'? - No. Is 'Ideastream' a good idea? - No. Views on strategic questions listed below: - if you want answers to them, then you need to use an on-line questionnaire format where responders can type in their answer opposite the question. Otherwise, it's just too much trouble.	respondents did chose to do that. However the majority preferred to submit responses by email. We have sought to make this consultation more accessible, for example by having fewer consultation questions.
	The Deerhurst Pipeline (or any such pipeline) is said to need the raw water to be treated before discharge to a river. No consideration is given to taking the water to the planned reservoir near Abingdon. As aquifer storage would be the best solution, distributed irrigation or injection should be considered as this would provide natural treatment.	The choice of the Severn Thames Transfer pipeline, its route and its discharge point are a matter for Water Resources South East to consider in its plan. That is because water companies in the South East would be the recipients of the water, and they are therefore responsible for the selection of the scheme in water resources plans.
	The proposal to transfer Minworth effluent to the Warwickshire Avon is a non-starter. I live close to the River Tame which contains that effluent at present. The perfumed aroma and lack of fish will, even after tertiary treatment, preclude it ever going near the Avon.	The Gated reports for the Minworth Strategic Resource Option and accompanying environmental appraisals show how such effects have been considered.
	The Mythe abstraction license is just a piece of paper. Changing it does not make any extra water available.	Reallocating abstraction rights, means that one party can abstract less and another more. This makes extra water available for the recipient of the transfer. The question is whether the party who currently has the abstraction right can manage without in the future by sourcing its water elsewhere. Severn Trent's current position is that the Mythe licence is required to meet needs in the midlands.
	Pumping the Netheridge effluent upstream provides a little extra water to the abstraction point but there is already sufficient water available there. Would it not make more sense to pump it over the hill into the Thames catchment?	The proposal is to connect Netheridge into the Severn Thames Transfer pipeline and therefore pump the water into the Thames catchment. This could be either directly into the new treatment works that supplies the pipeline or via a "water balance" approach in the Severn at Deerhurst.
	The calculations around Vyrnwy appear to be smoke and mirrors. Nothing that I can see increases the available water in the Severn	United Utilities can currently take up to 180 Ml/d from Vyrnwy, During times of transfer United Utilities would stop taking this water and instead release it into the River Severn. This is not a small

Organisation	Feedback received	Water Resources West's response
	except the small reduction in that supplied to Liverpool. The Oswestry/Shrewsbury contortions don't change anything.	reduction, but the net effect is no change at Vyrnwy. The water goes south rather than north. Considerations around Oswestry and Vyrnwy relate to (a) how to ensure the water made available in the Severn without adverse environmental impact and (b) how to ensure supplies to United Utilities customers are maintained during times of transfer.
	I looked in vain, to see whether you are addressing a short-term drought issue of the long-term resources problem. Obviously, it appears to be a longer-term programme but should you include short-term measures to address a problem like the 1976 drought?	It is a long-term resources problem, but a central part of the long term problem is risk of more severe drought in the future. Drought management measures which form part of the plan are now explicitly included in this draft plan.
	You seem to place much reliance on reducing leakage and consumption. This is (almost) irrelevant in a water resources strategy. Most leakage (i.e. in inland areas) simply goes back into the ground and helps restore the resource available as groundwater. Consumption is abstracted and returned to the environment after use and treatment. Targets to reduce either of them have a negligible effect on resources though they do affect supply.	We are following the requirements set by the government to reduce leakage by 50% by 2050 (relative to 2017 levels) and to reduce PCC to 110 l/p/d in the same timeframe. This increases our available supply and resilience and mitigates the need for new sources.
	I have commented on the Cotswold Canal Transfer elsewhere but the same logic will apply to The Grand Union Canal transfer - you can't move more than 90Ml/d through a canal	The Gate Report for the Grand Union Canal Strategic Resource option details the assessment of the proposed 100 Ml/d transfer, and explains that upgrades to existing canal assets are required to facilitate additional flows.
	Overall, the report does nothing to improve public understanding of the problem as it's too long, full of acronyms/abbreviations, and has a number of 'clever diagrams' which appear to be aimed at confusing the reader. Clear diagrams showing the existing systems and assets are lacking which would help in understanding. At least the pictures are good.	Thank you for your feedback. We have shortened the document, redrafted the narrative to be less technical and redrafted most of the diagrams with the aim of making it more accessible and understandable.

G.4. The EA's Review of England's emerging regional water resources plans

This section summaries the feedback given by the Environment Agency to all five regions in their May 2022 publication[2]. The feedback and our response is set out in Table 3 below.

Table 3. Environment Agency's feedback for all emerging regional plans.

Feedback	Water Resources West's response
Our expectation for the autumn draft regional plans, is for them to demonstrate that all deficits for public water supply are resolved in a final preferred pathway. We expect: • regional plans to show the solutions needed to overcome the deficit, including adaptive pathways to show how companies can deal with future uncertainty • the solutions to not create environmental deterioration or preclude environmental enhancement • the solutions to be best value and adhere to the principles provided in the water resources planning guidelines • water companies to deliver the programmes of work, and complex decision analysis required to produce a preferred best value plan, with adaptive pathways as needed – to provide secure water supplies and environmental improvement over the next 25 years and more	The solutions we have put forward in our draft preferred plan (See Section 7.1) are sufficient to overcome deficits encountered in our 30 water resource zones. We present large surpluses in some zones, notably North Staffordshire and Strategic Grid (Severn Trent area) in 2051 because Severn Trent have chosen to profile the benefits derived from Government's water labelling initiative later in the planning horizon. These surpluses will help mitigate increasing deficits after 2051 in these zones, so they are still best value. All solutions in our draft plan are best value, as determined by our multi-criteria analysis applied through ValueStream. Each option was assessed against a series of metrics with various weightings (as informed by stakeholder and customer engagement) to derive its benefits and disbenefits. The solutions found formed our best value plan. We then formed adaptive plans to address future possible scenarios determined by key decision points (see Section 7.4).
The emerging regional plans do not identify many water transfers as potential options for securing water supplies in the future. Given that transfers have previously been seen as critical to the solution, we expect regional groups to provide: • justification and evidence that greater national connectivity of water resources is not worth pursing within their best value plans	We are confident we had a sufficiently large pool of feasible options (193) from which to select best value plan. We present our feasible options (by category) in Appendix B and our feasible transfers in Appendix C. We have offered a number of transfers to other regions during both reconciliation rounds. Only one region (WRSE) has decided to utilise two of the transfers offered (Grand Union Canal and Severn Thames Transfer). Severn Trent

[2] Review of England's emerging regional water resources plans, Environment Agency, 24 May 2022

Feedback	Water Resources West's response
• evidence that enough supply options (of all types) are available nationally to allow selection only of best value options to secure supplies in all locations Where transfers are proposed, regional groups must provide: • evidence that the transfer provides best value, and does not allow environmental deterioration or preclude environmental enhancement in the donor region • compatible assessments of water supply resilience in donating catchments and receiving regions, as well as consistent information on transfer quantities, operation and timing presented by the regional groups	Water has also selected a portion of the transfer from Vyrnwy Aqueduct (part of Severn Thames Transfer). Wood and Ricardo have undertaken environmental assessments for the two transfers. Section 7.3 contains details on these transfers (volumes and timings under two different scenarios) as well as their risks and benefits. The volumes and timings of the selected transfers are consistent with those stated in Water Resources South East's draft plan and these have been agreed in the reconciliation process. Evidence of our best value planning, aligned to the inter-regional reconciliation is provided in Appendix O. Supply resilience assessments across transfers are compatible. We used consistent stochastic drought datasets commissioned jointly by the regions from Atkins. We followed an approach to deployable output assessment set out in the Water Resources West methodology and aligned to the All Company Working Group approach to assessing scheme benefits.
While we strongly support the ambition of groups to meet the stretching demand reductions, we acknowledge the uncertainty in the medium to longer term. Our expectation for managing this risk is that regional plans should provide: • short term goals through to 2030 that are well defined and achievable • detailed and well-evidenced actions, with further details reflected in the water resources management plans – this will give confidence that ambitious demand reductions can be met • monitoring plans and reporting alongside adaptive planning by the companies • appropriate adaptive plans, with decision points and pathways which manage the uncertainty associated with reducing demand – for example, alternative supply options could be investigated to be	We have highlighted in Section 7.1 the actions that companies will take to achieve demand reductions in the shorter (up to 2035) and longer term (2050 and beyond). We showcase profiled demand reductions, by company and illustrated the benefits from individual types of demand management actions, by 2050, presenting the benefits derived from water labelling separately. Adaptive pathways are illustrated in Section 7.4 and further details are presented in the regional tables and individual water company WRMPs.

Feedback	Water Resources West's response
brought online, at a certain decision point if it is shown that the water company is failing to achieve the demand reductions	
The 5 emerging regional plans offer a national environment destination which varies in ambition, depending on location. Our expectation for the regional groups and water companies is to: • provide an environment destination reflective of the shared environmental goal of regional groups, government, and regulators, which reflects the expectations of stakeholders and contributes to the ambitions of the government's 25 Year Environment Plan • take account of the water industry national environment programme (WINEP) in delivering environmental improvements between 2025 and 2030 • from 2030 onwards, as a minimum, to plan for an environment destination scenario which is consistent with the Environment Agency 'business as usual plus' (BAU+) locally verified scenario • provide evidence that all catchments have a fully considered environment destination, with accompanying detail on the timing and prioritisation of achieving that destination	Our environmental destination has been further refined since the publication of the emerging regional plan. We worked with regulators and other stakeholders to deliver abstraction reductions consistent with locally verified BAU+ scenario. The difference between BAU+ and Enhanced scenarios is small for our region (See Section 4.1.2) and hence, we are focussing on the BAU+ scenario. The abstraction reductions included in our regional plan mean that by 2030, we will deliver >30% of the total deployable output reductions required to achieve the full environmental destination (i.e. all the licence changes for WFD no deterioration and BAU+ combined). Beyond the abstraction reduction scenarios, we have identified a series of options that we would like to take forward for further assessment, with a view to select some of the options for implementation. In the short term, we will focus on no regret options with known benefits that can be delivered quickly (see Section 7.2). For now, we are focussing on several prioritised catchments. Due to the size of our region, it was not possible at this stage to devise solutions for more catchments. However, this is an area we will continue to work on as our environmental destination matures. More details on our environmental destination can be found in Appendix D.
A core principle of the National Framework is collaboration between regional groups, regulators, government, and stakeholders to achieve shared goals for security of water supplies, and the protection and enhancement of the environment. As part of that collaboration, government and regulators will work with regional groups as far as practicable to give insights into legislative change, policy updates, and changing regulatory requirements. However, regional plans will always need to accommodate a degree of uncertainty in this area. Whilst recognising that this is a particular challenge for regional groups, we expect:	We have strived to accommodate the evolving regulatory landscape and to incorporate all regulatory feedback we received during the development of the plan (i.e. via our Senior Management group reviews of our draft plan documentation, feedback from emerging plan consultation, etc). We maintain close collaboration with regulators and other regional groups to ensure alignment, this being clearly documented in Appendix I.

Feedback	Water Resources West's response
• regional plans to accommodate known draft and developing approach changes, and evolving regulatory positions as far as practicable • regional plans to include evidence and detail of the impact of such approach and regulatory changes • this to be achieved by regional groups working collaboratively with government, regulators, and stakeholders toward shared goals	
Regional plans should be 'plans in their own right' that link to relevant water company water resource management plans. This means that we expect regional plans to set out a level of detail and evidence that allows regulators and stakeholders to understand and assess how a regional group will deliver all the elements of its plan. A plan that refers readers to other sources to obtain sufficient understanding required to enable the regional plan to make sense will not meet our expectations. The regional plan should provide a satisfactory level of detail to assure regulators and stakeholders that an outcome in a regional plan is achievable. The autumn final draft regional plans should be a fully formed draft of a regional plan. This means that the plans should set out the confirmed ambition, proposed strategy, preferred solutions, and alternative choices to meet the planning problem. The public and regulators should be able to clearly see what is being proposed in the regional plans to meet the challenges. And these plans in combination should form a cohesive, strategic plan to meet the national need for water.	Our regional plan contains all the elements of a fully-fledged regional plan. We endeavoured to keep the main plan document accessible for the public, with more technical details provided in the plan appendices. Our plan has been shaped by regulatory feedback, and regulators have had sight of all our plan documentation prior to submission.
Water company water resource management plans must also reflect the relevant regional plan. Or, where 2 relevant plans do not reflect each other, the reasons for this difference must be outlined. That means that the underlying assumptions and the technical methods used within both plans must be aligned, with the presentation of any figures consistent between plans. If inconsistent, the reasons for this should be explained.	Our regional plan and the WRMPs within our region have been developed in parallel to with each other, using the same methods and selection of schemes. This has ensured that national and regional needs are reflected in the WRMPs, and that WRMP requirements are reflected in the regional plan decisions. Consistent selection of transfer schemes between regions and with WRMPs was managed through the inter-regional reconciliation process. Change control and

Feedback	Water Resources West's response
	post reconciliation changes, and how they are handled in this plan are set out in Section 7.4.2.
The regional plan should: • provide confidence of delivery • be best value • describe the specific benefits that it will provide • outline any risks or uncertainty associated with its delivery In addition to these expectations, each draft final regional plan should: • include information to demonstrate that it has been endorsed by all relevant water company boards and the regional group board • describe the feedback received and changes made in response to the January 2022 emerging plan consultation • be published alongside all associated documents and appendices in a publicly accessible place	Our regional plan clearly outlines the benefits of the plan with and without the transfers we propose, in Section 7.5. Section 7.7 outlines the impacts of different scenarios (i.e. Compound High, ED high, 50% demand reduction) on our regional plan option selection and best value scores. We particularly explored the consequences of the demand sensitivity scenario, where we would be unable to meet the envisaged demand reductions (see Section 7.7.1.) Our draft plan contains a statement which explicitly states that it has been approved by the CEO group and is consistent with the WRMPs approved by the companies' boards. We have provided details on how our plan has changed in response to the emerging plan consultation in Table 2 of this appendix. The regional plan and all its appendices are being published on the Water Resources West website.
We expect the regional plan to have accompanying data tables. Data tables should forecast the baseline situation for the region, plus the available options and preferred plan for: • maintaining water supplies for a range of water users • enhancing the environment in the region	We have included our regional data tables as Appendix H, following the template provided by the Environment Agency in August 2022. The preferred options are showcased in our plan in Section 7.1 with more details in Appendix H.
For public water supply abstraction, our 'Water resources planning guideline supplementary guidance – actions required to prevent deterioration' sets out: • our approach to reducing the licensed quantities of some public water supply abstraction licences, to prevent deterioration	This is a core part of our regional plan and is clearly reflected in our environmental destination (see Appendix D) and regional planning tables (see Appendix H). We will refine our final plans based on the outcomes of the environmental assessments to ensure no deterioration to WFD status or protected sites arises from any of our proposed supply schemes.

Feedback	Water Resources West's response
• how these proposed reductions should be reflected in the water resources management plans We expect the proposed changes to be included in draft water resource management plans in 2022, reflected in regional plans, and refined for final plans in 2023. We want companies to use water resources management plans 2024, and later plans, to develop options to balance supply and demand and reduce the risk of deterioration.	
Our expectations of the long-term environment destination are for water companies to describe what future abstraction licence changes are required to achieve and maintain sustainable abstraction. Following the wide range of interpretations of our guidance on the environment destination seen in the emerging plans, and subsequent discussions with fellow regulators, regional groups and some water companies, we are clarifying our expectation to be that: • all regional groups and water companies plan for what is described as 'business as usual plus' (BAU+) that has been locally verified as a minimum • the BAU+ will be the minimum requirement, but we strongly encourage regional groups and water companies to develop a higher level of protection and enhancement for the environment, in line with the enhanced scenario. The time frame for meeting the environment destination is from 2030 to 2050. We expect the WINEP to cover the immediate changes to abstraction licences for water companies between 2025 to 2030. And we expect these will be picked up by individual water company plans.	We worked with regulators and other stakeholders to deliver abstraction reductions consistent with locally verified BAU+ scenario. The difference between BAU+ and Enhanced scenarios is small for our region (see Section 4.1.2) and hence, we are focussing on the BAU+ scenario. The abstraction reductions included in our regional plan mean that by 2030, we will deliver >30% of the total deployable output reductions required to achieve the full environmental destination (i.e. all the licence changes for WFD no deterioration and BAU+ combined). A full breakdown of abstraction reductions is provided in the regional tables 'Environmental destination' tab as well as Appendix D. These reductions are consistent with those present in water companies' individual planning tables.
Regulation 19 of the WFD Regulations provides an exemption from meeting statutory environmental objectives in river basin management plans, where robust justification exists. Such exemption under Regulation 19 will be an exception for only a small number of options that meet the stringent tests set down. It is not something we consider will be widely applicable, as it will	Wood and Ricardo have undertaken our WFD assessments for all our preferred options, including in combination impacts. We have appended these assessments to our regional plan (see Appendix M). Where schemes have been identified to have a high potential for WFD deterioration, we will further investigate and seek to explore these risks further and find mitigation actions

Feedback	Water Resources West's response
usually be possible to find another solution to meet the outcome that does not cause deterioration or prevent the achievement of good status in water bodies. Regional plans (and water resources management plans) should not contain preferred schemes that are likely to require yet fail an application for Regulation 19. Regional groups should consider our draft advice note 'Applying regulation 19 to water resources schemes' in appraising and selecting options. If a plan includes a scheme needing Regulation 19 in its preferred programme, it should justify this, summarising pertinent points of the Regulation 19 case that will be made at time of permit applications.	that could make the schemes compliant. We will liaise with regulators in this regard. Should no suitable mitigation measures be available for implementation, we will seek to replace the option with an alternative.
River augmentation typically involves discharging water abstracted from groundwater or another water body into a river to augment its flow. Where river augmentation is proposed as part of a new supply scheme it would likely fall into one of 2 categories: 1. The use of discharged water to mitigate abstraction impacts of the new supply scheme in the river that receives the augmentation. 2. Transferring water from one water body (or groundwater body) to another, to support abstraction from the river that receives augmentation. Our approach follows the principle that environmental damage should as a priority be rectified at source. Therefore, in the example of category 1, we would not regard the proposed scheme as acceptable. The new supply scheme should not be planned to require mitigation with a river augmentation scheme, this is not considered sustainable. In the example of category 2, with the appropriate assessments, a sustainable scheme that transfers water in this way could be accepted in principle (but would be determined on a case-by-case basis). We expect over time, that the long-term sustainability of existing schemes falling into category 1 will be reviewed, including consideration of the carbon impact of pumping. We expect plans to replace unsustainable schemes – that	We do not have any options that utilise river augmentation element as mitigation for abstraction. The only raw transfer of water we have in our draft preferred plan is the United Utilities release from Vyrnwy to the River Severn, to support downstream abstraction. We screened out early any raw water transfers from one surface water catchment to another. If a transfer is made – such as Severn Trent's Carsington to Tittesworth, the water goes to the water treatment works. None of our groundwater options support river augmentation.

Feedback	Water Resources West's response
exist to allow environmental damage due to abstraction to occur – to be included within the environment destination in future planning rounds	

Annex 1. WRW Stakeholder engagement report (2022)

During January and February 2022 we hosted a series of virtual workshops in the North West, Midlands and Wales, that formed part of the programme of consultation on our Emerging Regional Plan. The workshops were designed to seek feedback from stakeholders on a range of topics, through discussion and interactive voting. More than 1,000 stakeholders were invited to take part and a total of 133 stakeholders participated in them, representing 84 organisations. In running these events we were supported by engagement specialists EQ. EQ's report of these events is available on the Water Resources West website:

waterresourceswest.co.uk/s/Water-Resources-West-Emerging-Plan-Stakeholder-Workshops-Feedback-Re.pdf

Annex 2. WRW Stakeholder engagement report (2021)

Adapting to the challenges of the COVID-19 pandemic, we officially launched Water Resources West through an engaging and interactive virtual event in October 2020. Our subsequent consultation and engagement work built on this digital approach utilising a series of virtual tools to involve a mixed geographical cross-section of stakeholders. A document published in July 2021 set out our approach up to that point, including the platforms and tools we used to successfully bring together a diverse mix of sectors and interest groups as well as mapping out the next steps in our story. Around 70 stakeholders attended our launch event and we had around 30 responses to our Environmental Destination consultation. Our options consultation workshop attracted 32 attendees. The report is available on the Water Resources West website:

waterresourceswest.co.uk/s/WRW-Reconciliation-Inputs-Appendix-H-stakeholder-engagement-report.pdf

Annex 3. WRW Water Transfers Consultation Report (May 2022)

Between November 2021 and January 2022 we held a consultation on Water Transfers via IdeaStream. This sought to understand stakeholder views on the impacts of changes of water supply which may be required to facilitate water transfers more strategically, as well as to understand their opinions as the specific strategic resource option proposals under consideration. In total 23 stakeholders responded to the consultation questionnaire. A copy of the consultation report from our consultants BECG, summarising the responses is provided on the following pages.

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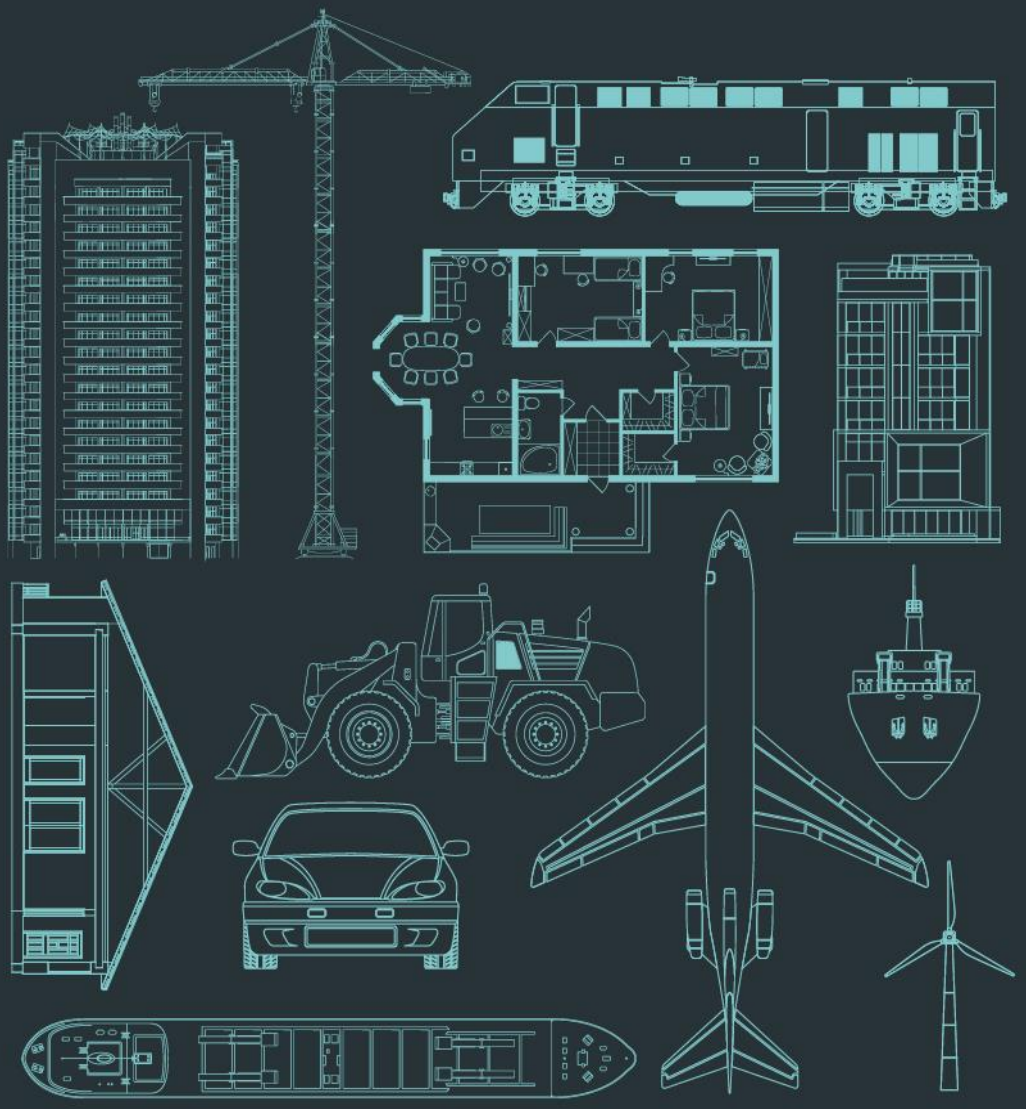

Water Resources West

Water Transfers Consultation Report

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Introduction

Water Resources West is a group of abstractors, their representatives, and regulators from across the North West, Midlands and Wales. We are working together to ensure the sustainability of water resources across multiple sectors whilst considering wider societal needs and exploring opportunities for environmental improvements.

Established in 2019, our geography has a diverse population of around 17 million people. Sharing the region's aspirations for a thriving environment and growing economy, Water Resources West is developing a collaborative plan to address challenges, such as climate change and water demand, and to capitalise on opportunities for improved resilience, economic growth, and environmental improvement.

This report summarises the activity undertaken by Water Resources West, and the response received, in relation to its water transfers consultation. This consultation ran from November 2021 – January 2022 and follows on from the activity outlined in Water Resources West's previous Consultation Report issued in July 2021. This previous activity included the launch of Water Resources West to stakeholders as well as its Options and Environmental Destination consultations. Water Resources West is pleased with the engagement it has received from stakeholders and the ongoing discussions this has prompted within its online IdeaStream forum.

About Water Transfers

Climate change and population growth is putting increasing pressure on the UK's water resources. In less than 25 years a lack of water could limit growth, jobs and impact people's everyday lives.

Water Resources West is working to develop plans to meet these challenges such as reducing demand and tackling leakage, as well as developing new sources of water. Water transfers offers the potential to develop new sources of water whilst ensuring we protect the nature and wildlife that rely on the water systems which are the source of all our water supplies. Water Transfers operate by moving water between different areas of the country, taking water from areas where and when it is available and sharing it with areas experiencing a shortfall in supply.

An example of a water transfer project which has demonstrated early signs of success can be seen with the "Severn Thames Transfer" scheme where work is exploring the possibility of transferring surplus water from a number of sources in Wales, the North West and the Midlands to the South East of England. This would be achieved by releasing water into the River Severn and then transferring it on to the River Thames

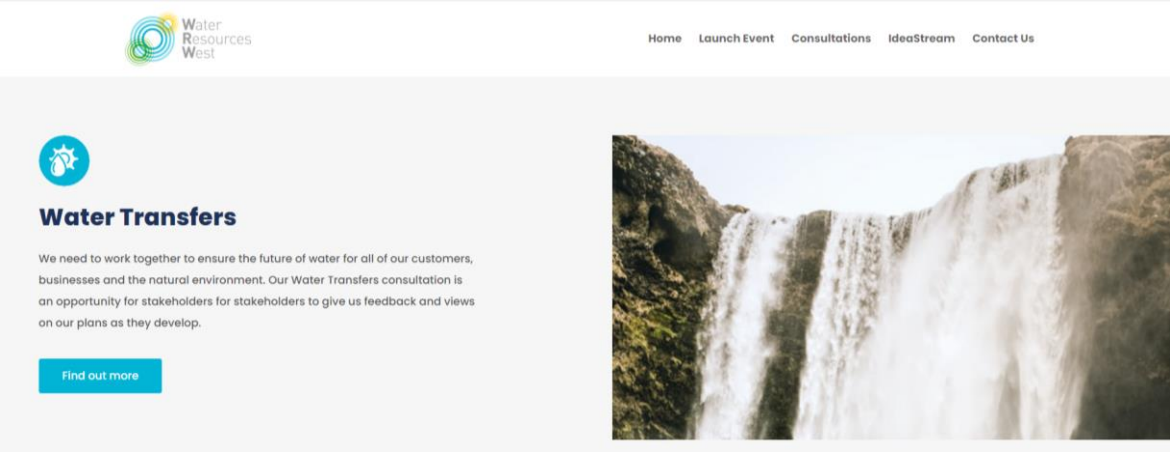
Both United Utilities and Severn Trent are supporting the Severn Thames Transfer by considering the use of new water sources. The aim is that these new sources will provide sufficient water to allow any excess to be transferred to other regions where water is in shorter supply. These new sources could also provide extra resilience when needed, in a way that does not damage the natural environment.

Our work throughout 2020-2025 will look at appropriate regulatory, technical, and environmental aspects of the transfer. If the results of these investigations are favourable it will allow the Severn Thames Transfer to be considered as an option in future regional and water company Water Resource Management Plans.

If the scheme is progressed, it could bring many benefits to the region, including investment in water infrastructure, improvements for nature and creating skilled jobs.

Consultation Activity

Water Resources West carried out its water transfers consultation between November 2021 and January 2022. The approach involved direct outreach to stakeholders and utilised Water Resources West's existing online platform, IdeaStream.



Direct Email

The water transfers consultation was launched via a direct email issued from the Water Resources West Director, Richard Blackwell. This email positioned the consultation to stakeholders as part of the development of Water Resources West's wider plan. The email signposted stakeholders to the IdeaStream website to find out more about water transfers, Water Resources West's initial thinking and encouraging people to provide their thoughts.

Dear Stakeholder,

As you may be aware, we are working through the final stages of pulling together a consultation version of our plan on which we will be sharing early next year. As part of that plan, we are constantly seeking views of our stakeholders and so today we are launching our water transfers consultation and want to invite feedback from our stakeholders via our IdeaStream platform.

Water Resources West is a group of abstractors, their representatives, and their regulators. We are working together to ensure the future sustainability of water resources, considering wider societal needs, environmental improvement and working across sectors. Climate change and population growth is putting increasing pressure on the UK's water resources. In less than 25 years a lack of water could limit economic growth, jobs and impact people's everyday lives.

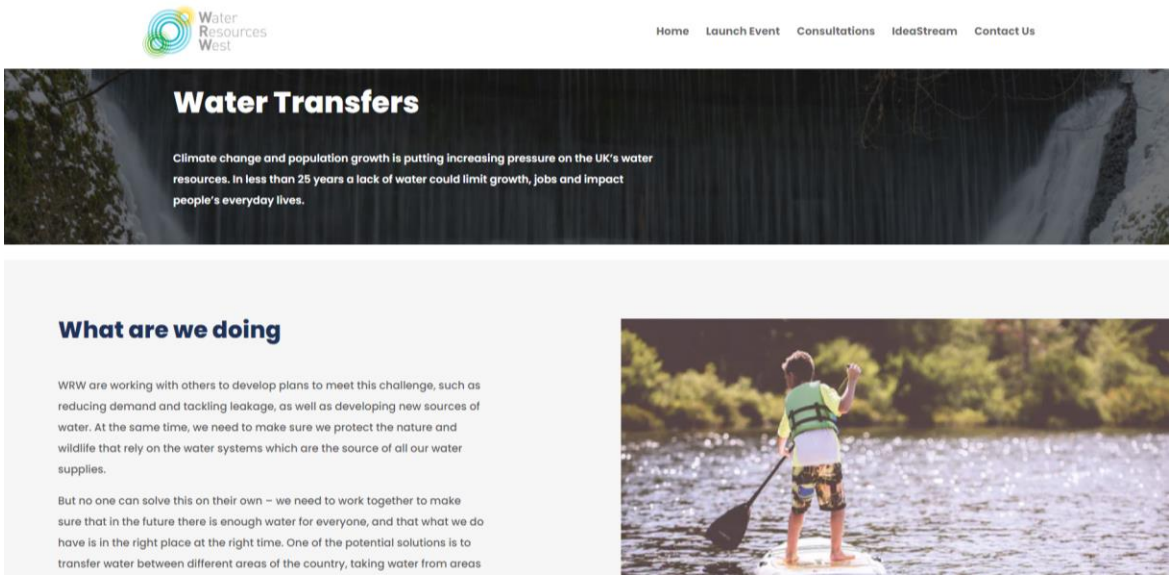
One of the potential solutions is to transfer water between different areas of the country, taking water from areas where and when it is available and sharing it with areas where it isn't. We would really appreciate feedback so that we can understand your thoughts on water transfers, ensuring whatever options we put forward in our final plans have been shaped by our stakeholders. **We would request that all feedback is provided by close of business Wednesday 23 December 2021** when we will be closing the consultation. If you have any questions or require further information, please don't hesitate to get in touch.

More information about Water Transfers and our consultation can be found on IdeaStream.

Kind regards,
Richard
Richard Blackwell
Director, Water Resources West
WaterResourcesWest.co.uk

IdeaStream

The main landing page of the IdeaStream site was updated to house a new section on water transfers. This linked through to a further page with more detail about water transfers and outlining the strategic resource options under consideration. Stakeholders were encouraged both via the direct email and on the website page to provide their views on water transfers by completing the online feedback form.



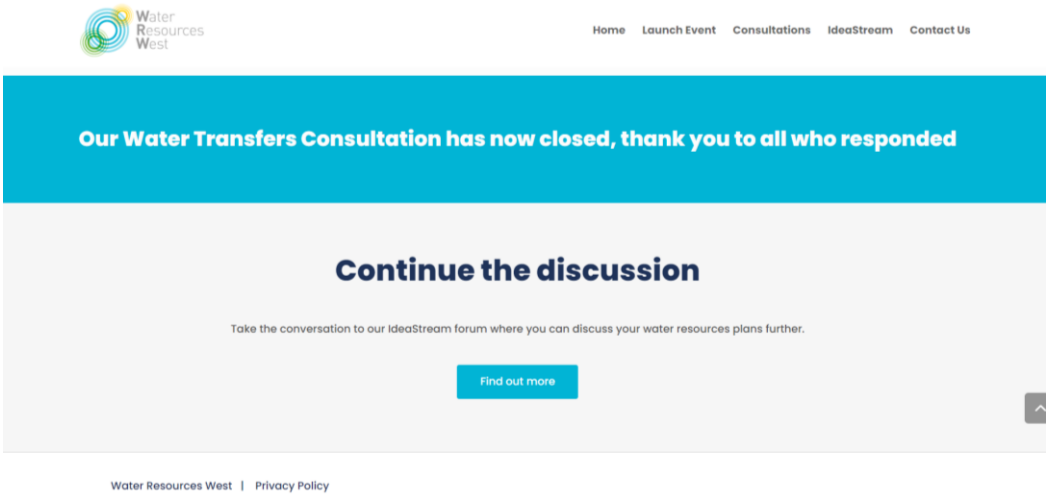
Online feedback form

The online feedback form was hosted on the IdeaStream water transfers section of the website. In total 23 stakeholders responded to the consultation questionnaire. This sought to grasp an understanding of what stakeholders viewed as key issues currently and what they identified as priorities for the future.

The questions that stakeholders were asked and their responses to these are summarised in the consultation feedback section of this report on page 6.

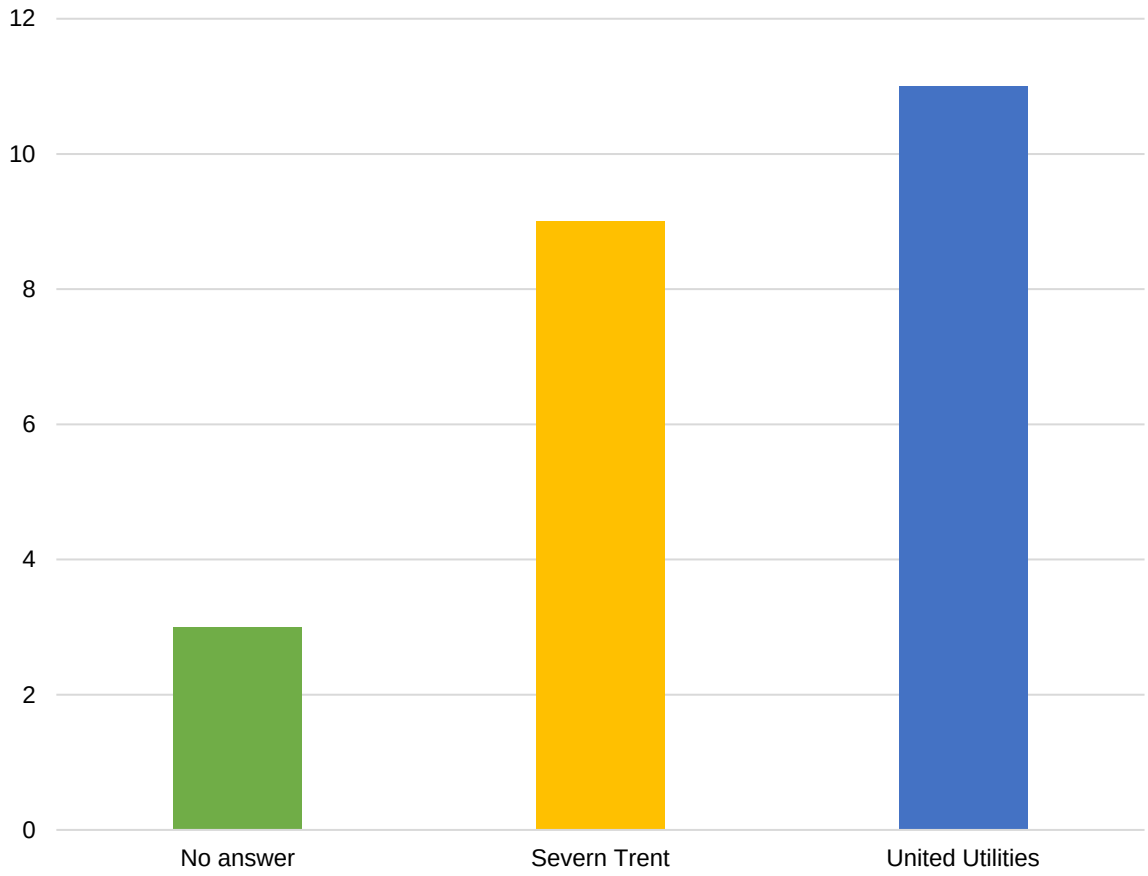
IdeaStream forum page

Following the closure of the consultation an IdeaStream forum has been launched. This encourages stakeholders to continue the discussion whilst Water Resources West develops and consults on its wider plan.

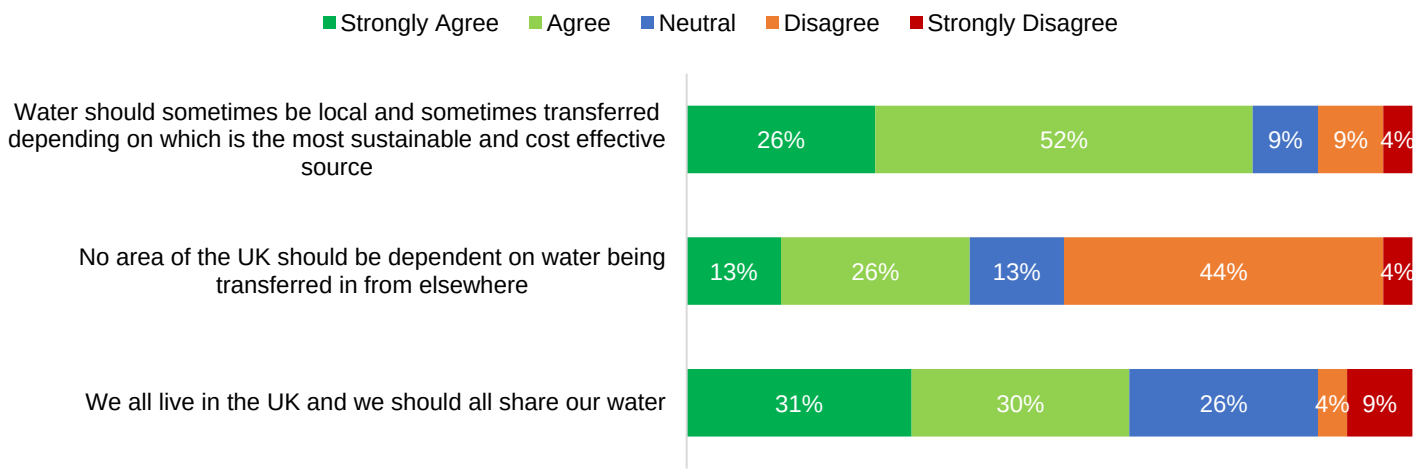


Consultation Feedback

1) Your water services supply company is



2) To what extent do you agree with the following statements?

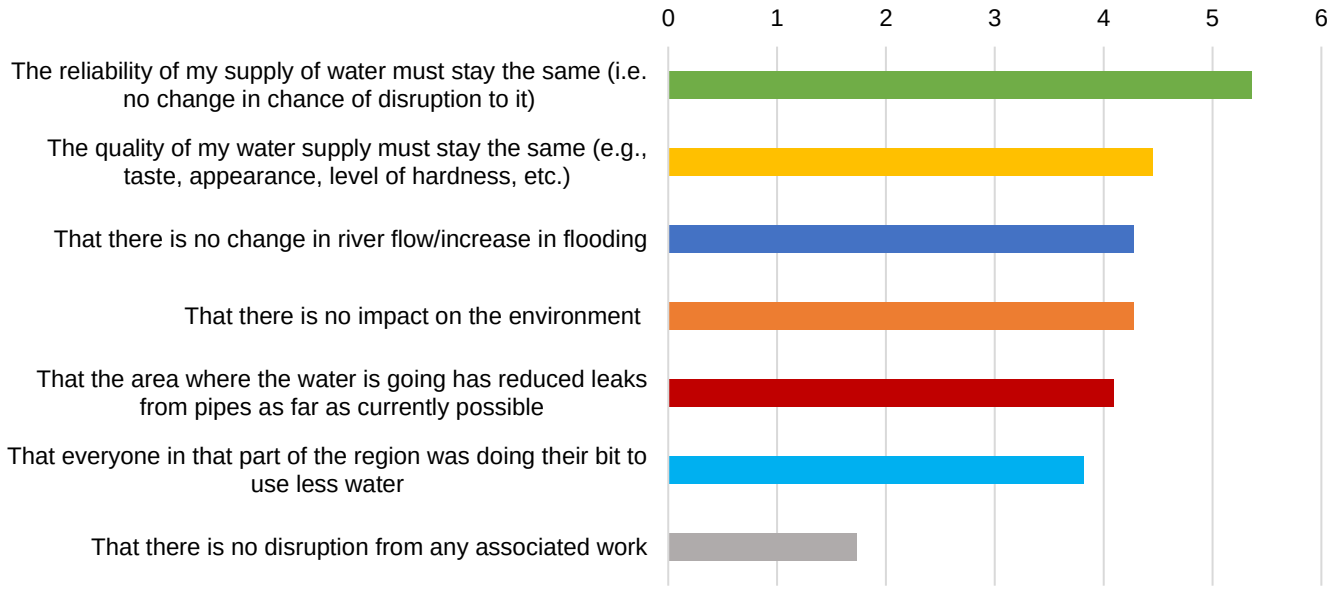


3) If water was being moved from your area to another part of the country where there is less available, what assurances would you need for this to be acceptable? Please rank them in importance with the top choice being most important.

A total of 12 respondents chose not to answer this question. Respondents were given seven options and were asked to rank them in the order of what they thought was most important. The options available to respondents is listed below:

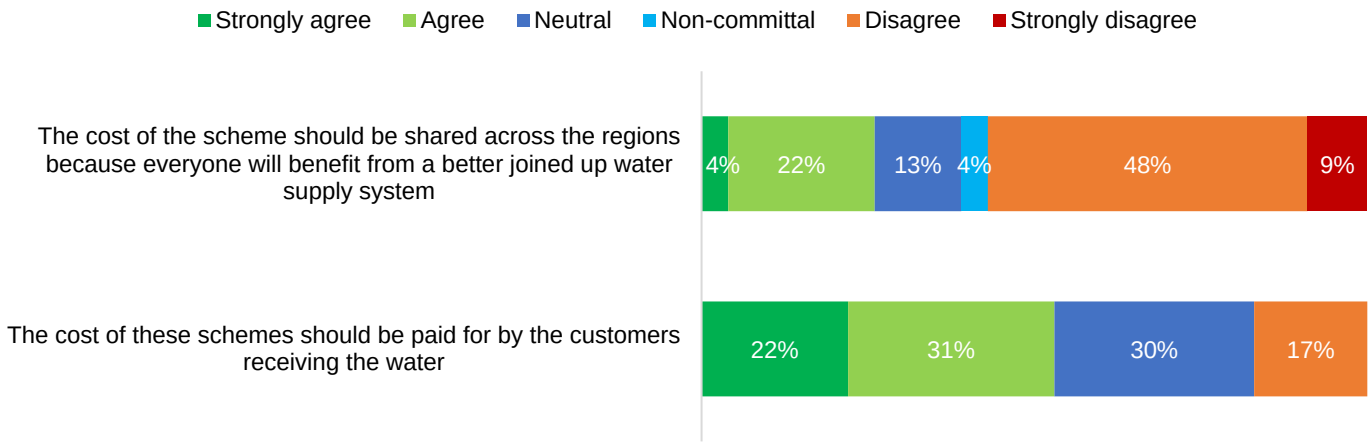
1. The reliability of my supply of water must stay the same (i.e., no change in chance of disruption to it)
2. That there is no change in river flow/increase in flooding
3. That there is no disruption from any associated work
4. That everyone in that part of the region was doing their bit to use less water
5. That there is no impact on the environment
6. The quality of my water supply must stay the same (e.g., taste, appearance, level of hardness etc.)
7. That the area where the water is going has reduced leaks from pipes as far as currently possible

Of the 11 who did answer this question, their responses are displayed as follows:

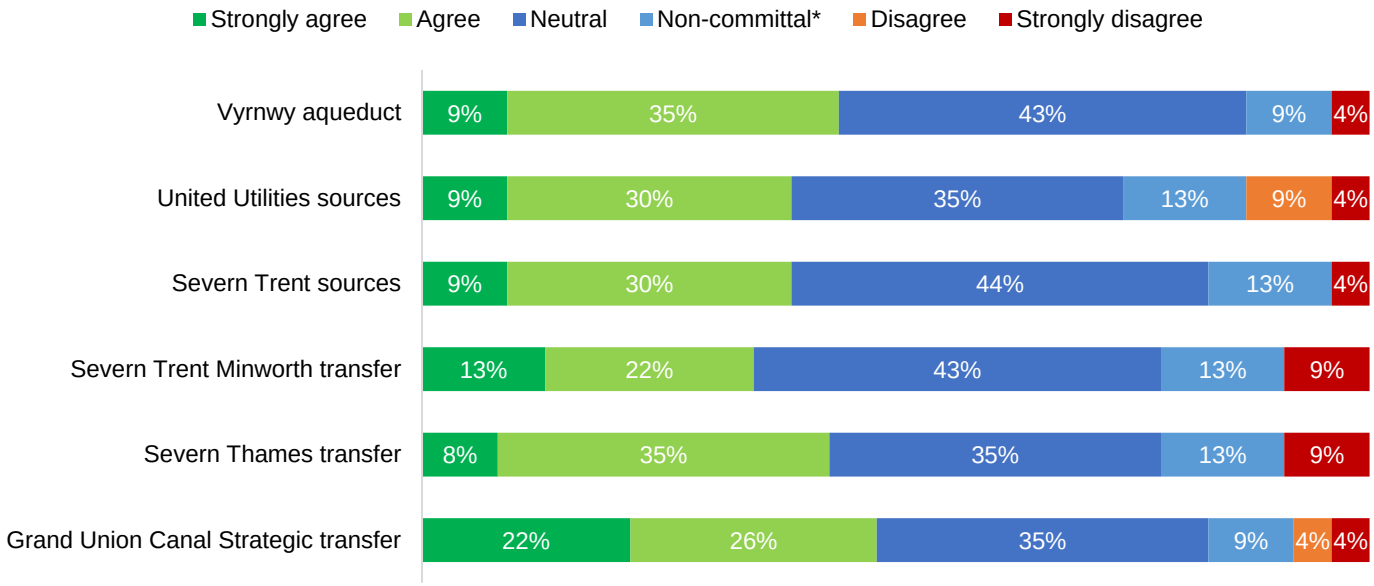


Option	1st	2nd	3rd	4th	5th	6th	7th	Score
1 ▲	5	2	0	1	2	1	0	**5.36**
6 ▲	3	3	0	0	1	3	1	**4.45**
2 ▲	0	2	4	3	0	1	1	**4.27**
5 ▲	3	1	1	1	2	2	1	**4.27**
7 ▲	0	1	3	4	2	1	0	**4.09**
4 ▲	0	2	2	1	4	2	0	**3.81**
3 ▲	0	0	1	1	0	1	8	**1.72**

4) To what extent do you agree with the following statements?



5) Of the schemes listed below could you rate how you feel about these being a good idea?



*non-committal refers to respondents who either did not answer or provided an answer that could not be categorised withing the five options provided

6) If you strongly agree or disagree with any of the above, could you explain why?

Scheme	Comment
Grand Union Canal Strategic transfer	*The Grand Union Canal transfer utilises existing infrastructure which makes sense and ensures that the canal environment is resilient. The utilisation of a proportion treated wastewater from Severn Trent Minworth also seems to help meet requirements of getting rivers back to their natural state.*
	The use of the canal network seems to be a good idea. If it can be achieved, it would be nice to see the Victorian system being utilised in a modern way.
	Canal transfer rather than river transfer would seem to have fewer potential environmental impacts and if it helps support canals (and maybe divert some of their existing supplies elsewhere too) then there are wider benefits. *Diverting treated effluent to support further abstraction seems better than trying to find a new "natural" source - it's making further use of water we've already taken out of the environment rather than taking more out.*
Severn Thames transfer	*The only really material scheme when compared to the projected shortfall in supply is the Severn Thames transfer. However, cost/benefit analysis later in the process may still mean that any of the schemes should be progressed. None should be discounted on the results of this consultation.*
	Ensuring no impact on nature both in terms of flow in rivers and transference of INNS
Severn Trent Minworth transfer	*I do not understand where the Minworth effluent goes at present and what the effects of using may be.*
	At present Minworth STW discharges over 400 Ml/d of treated effluent to the River Tame in the River Trent catchment. Much of this water originates from Clywedog reservoir in Wales and abstractions in the Severn valley. Therefore, use of Minworth effluent water to supply the South East via the Grand Union

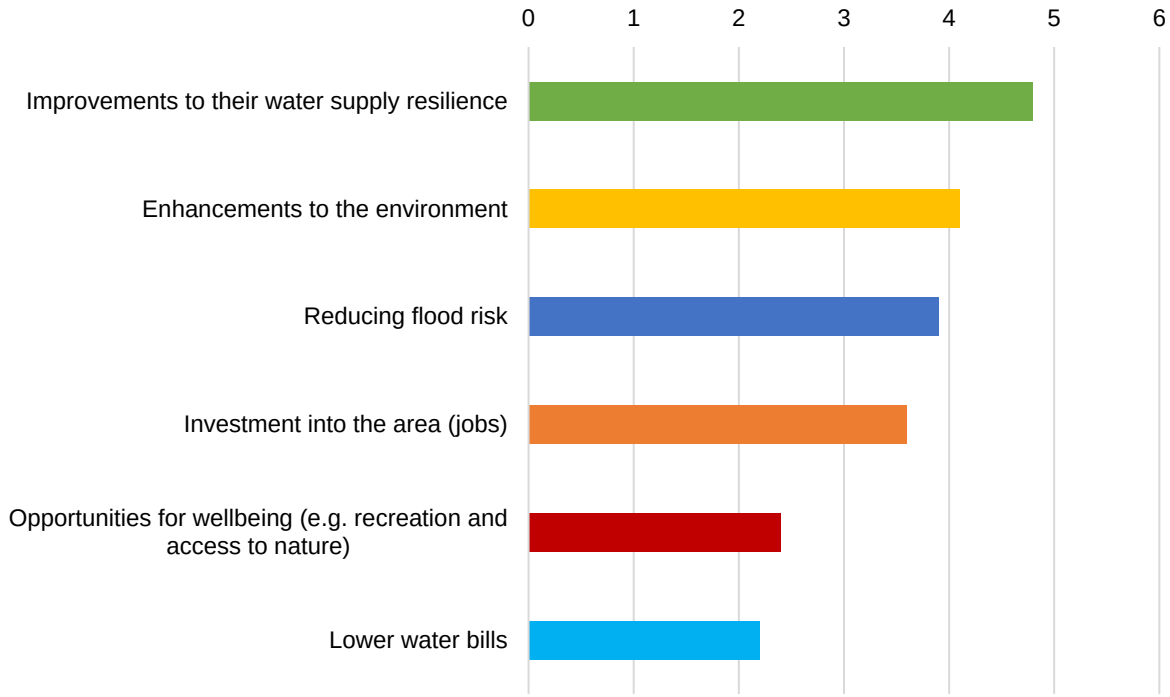
	Canal would be a strategic transfer from the North West to the South East.
United Utilities sources	*The explanation of the implications for the North West is insufficiently articulated. There is also limited evidence of exporting areas receiving benefits from the transfer of this significant asset. For example, Cumbria receives relatively little economic recompense for supplying swathes of water to the North West of England.*
Multiple schemes	*Regardless of pressure on existing water resources in the North and West, the region has more rainfall and lower population density than the South East, so it makes strategic sense to transfer water from the North West to the South East. Vyrnwy reservoir yields a higher deployable output when used as a regulating reservoir in conjunction with the STT, compared to its deployable output when used in continuous direct supply to United Utilities.* *If Vyrnwy reservoir is used to regulate flows in the Severn, there would be some loss of deployable output for United Utilities (but less than the DO gain for the South East). Replacement sources for United Utilities are available in the North West at lower unit cost than equivalent sources in the South East. Therefore, when the Severn to Thames aqueduct is in place, it will be more cost effective for the country as a whole to develop new United Utilities sources rather than new sources in Thames Water or Affinity Water supply areas.*
	All sound logical and not requiring massive infrastructure investment.
	Water is a natural and limited resource. As such, populations must learn to live within acceptable limits of water supply so that sustainability is achieved without harming the environment and businesses that depend on a water supply.

	Governments should introduce and support investment into natural resource sustainability of water, including, where necessary, population relocation to areas to match the availability of natural resources. Workforces in sectors such as IT and finance could be relocated close to abundant water resources, thus aiding natural resource sustainability and the levelling up of society.
	There has been no information regarding inevitable ecological impacts of transferring such large volumes of water. All river basins districts will suffer as a result of climate change and associated increased droughts, and draining water from specific areas to supply others will significantly impact the ecology of these areas. A full assessment of these impacts must be undertaken before any potential scheme. Different options, including working to increase storage and capacity in natural and man-made wetlands should be considered before options to transfer water at scale across the country.

7) What benefits would you like to see from transfers? Please rank them in importance with the top choice being most important

13 respondents chose not to answer this question. Respondents were given six options and were asked to rank them in the order of what they thought was most important. The options available to respondents is listed below:

1. Enhancements to the environment
2. Reducing flood risk
3. Lower water bills
4. Improvements to their water supply resilience
5. Investment into the area (jobs)
6. Opportunities for wellbeing (e.g., recreation and access to nature)



Option	1st	2nd	3rd	4th	5th	6th	Score
4 ▲	4	2	3	0	1	0	**4.8**
1 ▲	3	1	1	4	1	0	**4.1**
2 ▲	0	5	2	1	1	1	**3.9**
5 ▲	2	1	3	1	1	2	**3.6**
6 ▲	0	1	0	4	2	3	**2.4**
3 ▲	1	0	1	0	4	4	**2.2**

8) We are keen to ensure that supply resilience and the environment are protected in the areas from which water transfers are sourced. What are your thoughts on that?

13 respondents agreed that supply resilience and the environment should be protected in the areas from which water transfers are sourced. A number of these respondents, while agreeing with this statement also offered other areas of importance/consideration. Listed below is a categorised breakdown of the responses.

Comment	Frequency
There needs to be greater economic benefit to the exporting communities	*1*
Supply and environment should be protected across the country as a whole, regardless of whether new sources are located in donor regions or recipient regions.	*4*
Ideally a net environmental gain as "compensation" for the transfer out of the area/catchment.	*1*
It's critical that the needs of consumers and abstracting businesses in areas where transfers are sourced are protected.	*4*
Must ensure that there is still sufficient water available for all types and uses in agriculture	*1*
Increasing capacity where water is needed is key	*2*
Water transfer should only be considered as a last option	*3*
Need more information to comment	*3*

Answer themes:

9) It is important that there are benefits to the source areas, so that transfer options can be selected as part of best value plans for those areas. Do you have any thoughts on what those benefits may be in your area?

Respondents were asked how water transfers may benefit their area. Listed below is a categorised breakdown of their responses.

Comment	Quantity
Source areas should receive investment / financial support	5
Environmental impact should be minimal / Environmental net gain needed / Sustainability should be prioritised	5
Wellness provision should be enhanced	2
Local water supply should be enhanced alongside water transfers infrastructure	2
Improvement to flood mitigation measures	2
Farmers should be financially supported	1

Listed below is a selection of the comments made by stakeholders:

Comment
Improvements to wellness e.g., nature walks, water sports. Better local supply of water. Less flooding locally.
Area ought to benefit economically with investment in high quality jobs etc. Investment in recreation and well-being opportunities and environmental enhancement
Provision of environmental net gain in the source area/catchment to "compensate" for the loss of a natural resource. Ideally the net gain should be provided in the catchment from which water is being taken or otherwise in a catchment that has been negatively affected by water resources (e.g., due to weirs/dams, abstraction pressure).
There are multiple benefits from utilising the existing canal network. The waterway environment would become more resilient offering greater access to all users (greater social and wellbeing benefits). Having a better connected network must provide benefits to United Utilities and their customers.
Farmers as land managers should be paid appropriately for the public goods they provide through the supply of clean and plentiful water. Farming businesses can play a role in improved water security, and infrastructure investment would help incentivise that. For example rainwater harvest and small-scale storage and improved water quality for example yard and track improvements and farm infrastructure that improves water quality. Potential across catchments should be exploited, so that public and private funding (such as STEPS scheme that STW operate). It type of investment can help deliver more sustainable water supplies, alongside long term drought resilience, which is particularly pertinent in the livestock sector. These areas are sometimes ineligible for current STEPS funding as the focus has been on water quality.

10) Do you have any thoughts on how the best use is made of the options to meet the needs of both source and recipient areas?

Nine of the respondents chose not to answer this question. Two respondents felt they needed more information to formulate a response. The responses from the other 14 are summarised below:

Answer
Create and negotiate an agreement outlining the expectations of and benefits to each of the parties
Water should be treated as a commodity and its transfer should benefit the regions and populations from which it was sourced
Flexibility of options is key so the supply can continue to be provided to areas to reduce carbon and cost impacts of using alternative water sources which are likely to require more pumping and treatment.
Public water supply companies should ensure that their transfer activities do not disadvantage non-PWS abstractors (i.e., factoring challenges of climate change, drought and an increasing population)
Ensure that water is transferred continually (at a lower capacity) so that the risk of system failure is reduced when the water is required
Transfer any excess water to other areas, rather than alternatives (i.e., transferring into the river network)
Make on farm storage of water easer to complete
Protect Source areas first
Increase understanding of water and catchment so people are aware of the difficulties in transference to reduce waste by people
Transfer utilising the river and canal networks
The financial cost is important, but future resilience and sustainability are essential rather than desirable.
The best option is the one that meets recipient needs and protects the source areas for the lowest overall impact

Answer themes:

11) In your area can you see any environment or wellbeing benefits that could be realised from any of these options?

10 of the respondents chose not to answer this question. The responses from the other 13 are summarised below:

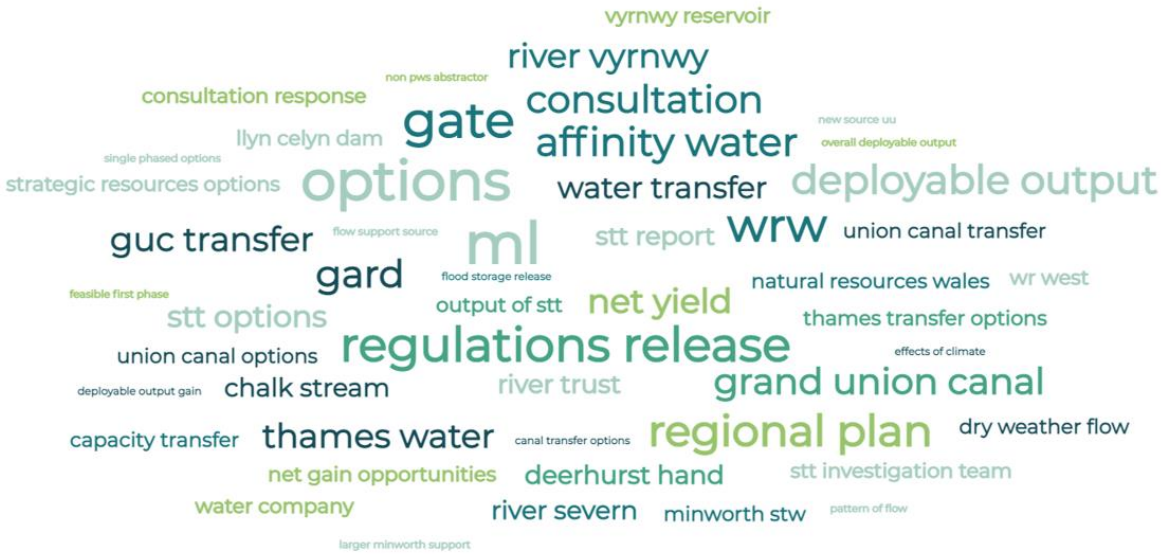
Response	Area
Reducing the risk of flooding and protecting the water supply	*Cumbria*
Any policy that improves farm income and sustainability will also support wellbeing	*Wales*
If sources need developing, there is a great opportunity for environmental net gain to be delivered (which provides wellbeing benefits and recreational benefits)	*North West*
We must be mindful of the impact on land managing businesses in source areas and ensure that they are treated fairly	*Shropshire*
Having a more resilient canal system because of the transfer can only be a good thing	*Cheshire*
The planning system and attitude of the Environment Agency needs to change	*Worcestershire*
Natural Flood Resilience measures in source areas in association with public amenity spaces - SUDS principles	*Lytham*
Peat restoration, re-alignment of rivers and re-instating flood plains	*Shropshire*
Nature based solutions, increased wetland habitat, increased wetland connectivity - all come with increased wellbeing benefits	*Cheshire*
Any improvement to water ways and the wider environment are beneficial	*Coventry*
If we tried to capture more of the rainwater that fell for our own use to replace Vyrnwy water, that might have knock-on benefits (e.g., by creating new reservoir ponds)	*The Wirral*


land managing business
appropriate management payment
new reservoir pond
wetlands connectivity
water way
peat restoration
great opportunities
uu source work
farming business
good things
water resources
natural flood resilience
area of wales
suds principles
voluntary basis
environmental net gain
temptation
wellbeing
flood resilience measures
wirral
alignment of river
vyrnwy water
loss of vyrnwy
resilient canal system
wider environment
flood plain
environmental benefits
farm income
transfer route
nature
source area
full consultation
public amenities space
increased wellbeing benefits
affected farming business
wellbeing benefits
increased wetlands habitat
planning system
water supplies
based solutions
economic challenge
recreational benefits
public good
source zone
environment agency
environmental enhancement

12) Any other thoughts on water transfers?

Eight of the respondents chose not to answer this question. One respondent directed towards a report conducted on behalf of their group which has been noted but not reflected in the summary below due to the length of the comment. The responses from the other 15 are summarised below:

Response
Can flood water be captured to use when there is less water around?
A better framework needs to be developed and the terms of agreement need to be shorter than current arrangements. The schemes delivered are predominantly protecting supply rather than benefitting the county fiscally.
There is a desperate need for awareness and behaviour change to reduce water consumption and to understand the issues
Early engagement on environmental net gain opportunities is important and there could be benefits of working alongside other infrastructure developers
We need to develop a system that considers the abstraction needs of food producing areas between these points
It is often forgotten that there are several public water supply transfers in the UK already in existence
Inter-regional transfer is part of the solution going forward
At this stage, there is a greater need for a national focus over a regional focus
We should start making better use of what the infrastructure we have as well as improve our capacity and capability ASAP
On a national basis, bring Kielder into the supply chain
This will create further strain on the natural environment
Great to hear that this option is being explored
Water transfer schemes seem to be the most sensible way of providing equity to all in the UK considering the future climate scenario outputs


vyrnwy reservoir
river vyrnwy
non pws abstractor
consultation response
consultation
gate
new source uu
affinity water
llyn celyn dam
overall deployable output
single phased options
strategic resources options
options
water transfer
deployable output
guc transfer
flow support source
ml
stt report
wrw
union canal transfer
gard
flood storage release
natural resources wales
wr west
feasible first phase
output of stt
net yield
stt options
thames transfer options
union canal options
regulations release
effects of climate
deployable output gain
chalk stream
river trust
grand union canal
capacity transfer
thames water
canal transfer options
regional plan
dry weather flow
net gain opportunities
deerhurst hand
stt investigation team
water company
river severn
minworth stw
pattern of flow
larger minworth support

Next steps

Water Resources West would like to thank all stakeholders who took the time to provide their feedback via the transfers consultation. The project team are continuing to review and further explore the ideas, suggestions and responses summarised in this report. This consultation activity is also being fed into the development of our wider water resourcing plan for the region.

Water Resources West anticipates publication of its preferred plan in August 2022. We look forward to continuing our engagement with stakeholders to produce a regional plan that delivers multiple benefits to our region. Water Resources West recognise the importance of continued cooperation with stakeholders in order to achieve the aspirations and targets set out by the project.