

## **Appendix 1. Meeting the needs of the National Framework**

The national framework sets out expectations for regional plans in the form of various requirements. These requirements are defined as issues that regional plans 'must', 'should' and 'could' cover / include, as shown below (**Figure A1.1**).

Take account of the national framework and set out its potential contribution to the national need Be reflected in WRMPs Forecast supply and demand over at least 25 years and set out solutions to any deficits Engage widely with Be a single strategic plan with a interested groups preferred adaptive solution Set out how the region will Take a multi sector approach respond to drought and Look beyond regional boundaries agree common scenarios for and use technical approaches drought actions compatible with other regions Join up with drainage and Include enhanced environmental wastewater management improvements and demand plans detailed information management Seek to improve resilience required for WRMPs Take a catchment based approach to events other than Contain all the drought, particularly floods Consider wider resilience detailed information benefits, including reducing flood Look ahead 50 years or required for drought risk when developing options more Be open to market mechanisms Take into account growth ambition Comply with SEA and HRA legislation

Figure A1.1 National Planning Framework 'Must-could-should' diagram for regional planning

This Appendix provides an update on WReN's status and approach to meeting the expectations set out in the National Framework, although it is important that this update is contextualised by the following points:

• Our January 2022 Emerging Plan for Consultation is a step towards our full regional plan, and in particular towards the draft plan in autumn 2022 to be published around the same time as Company draft WRMPs. Our definition of the January 2022 submission is in line with the defined objectives for this milestone in the process, which have been agreed with regulators and other regions via the national Regional Co-ordination Group (RCG). At this stage, the January 2022 publication allows us to give early sight of the big issues and candidate solutions to get initial feedback from stakeholders and regulators. It also allows us to report on outputs from the inter-regional reconciliation and associated best value plan exploration. Therefore, it is too early to be able to evidence delivery against some of the National Framework criteria. For example, at this stage a full SEA or HRA is not anticipated or expected, even though interim associated outputs may be available. Further, at this stage, we are not presenting a single strategic and adaptive plan. Those criteria in the National Framework that are not currently fully met will be satisfied as our plan moves towards finalisation and following consultation.



• At the point of developing the National Framework, the EA outlined various aspirations for this first round of regional planning. However, it is only relatively recently through discussions with regulators and other regions that the practicalities and priorities in some areas have been confirmed or better understood – which is a natural consequence of undertaking a complex new planning activity for the first time. This is particularly important in relation to expectations of being able to confirm a robust estimate of environmental destination at this point, as there is an increased recognition of the longer-term work resulting from the plan that will be required to suitably define and justify investment requirements. Similarly, whilst taking a multi-sector approach is important for regional planning, the critical focus and objective of the regional plan reconciliation process through autumn 2021 has been necessarily focussed on inter-regional public water supply transfers, promoting alignment and exploration towards the WRMP. Based on the experience of regional planning to date, the EA is planning to review the National Framework and we anticipate that the regional planning process will evolve further for future planning rounds.

Recognising the specific characteristics of our region, **Table A1.1** below lists the National Framework requirements and our position with regards to including them in the WReN regional plan. The January 2022 publication marks a key milestone towards final development of the regional plan, and as such, feedback at this consultation stage may result in further evolution of the final delivery of our approach on balance of risk, need and priority.

Table A1.1 WReN position on Must, Should, Could items in the National Framework

Requirement		WReN regional plan position
Must	Take account of the national framework and set out its potential contribution to the national need	WReN's work is taking account of the national framework as defined by this Appendix, along with the further definition of requirements resulting from forums with other regional groups and regulators that have occurred during 2021 (particularly the RCG alignment working group sessions). The National Framework has informed our choice of objectives and metrics in the plan (detailed in Appendix 4) and will inform our approach to the strategic choices for consultation.  Given the headline focus on the contribution to the national need, WReN has been actively engaged with other regions around the approach to the inter-regional plan reconciliation process to form a coherent national set of regional plans (which has included approaches to reporting and SDB forecasts). We have been engaging with neighbouring regions on transfer options (see Appendix 5), which are included in our documentation, and have completed a detailed assessment of transfer options that marks a significant step change from WRMP19 Company plan activities. We have fully participated in the national plan reconciliation process, alongside other regions that have more acute planning drivers.
	Be reflected in WRMPs	Our 'bottom up' approach means that WReN's regional plan and WRMPs are essentially being developed in conjunction with each other on a zonal basis, with plan development coherently being managed across the region through workstream leads in each technical area. August 2021 marked our first major update of the supply-demand balance since WRMP19, and the January 2022 emerging regional



Requirement		WReN regional plan position
		plan marks an early stage or iteration in the development of the resulting WRMP for strategic level planning considerations.
	Forecast supply and demand over at least 25 years and set out solutions to any deficits	We have forecast supply and demand out to 60 years (2025-2085). The first 25-year period has been the 'core' driver of need for options appraisal and focus for reconciliation between regional plans, whilst the 60-year forward look allows consideration of adaptability and longevity in developing the preferred plan (as described in Section 8 of the Main Report). The supply-demand forecasts are inherently coarser beyond the core 25-year planning period.
		When finalised, our regional plan will be a single plan with a preferred solution (a coherent set, or portfolio, of selected options). We will demonstrate an adaptive plan based on stress testing scenarios for major uncertainties; our initial outputs are included in Section 8 of the main report. This covers both national common plan stress tests as well as our own more tailored scenario tests.
	Be a single strategic plan with a preferred adaptive solution	Informed by strategic choices, the plan may also include pathways based on these scenarios with suitable triggers for when alternative paths may need to be followed. At this stage, following reconciliation, we envisage two pathways, reflecting our plan position with and without the loss of the existing Derwent transfer from Water Resources West, which is linked to the new Strategic Resource Option (SRO) which Yorkshire Water has jointly proposed with Severn Trent Water. We have explored stress tests and scenarios under each of these paths for the relevant zone (Yorkshire Grid).
		The pathways will be confirmed through the consultation process based on the nature of the proposed plans and sensitivities, given the influence of other regions on the WReN plan in any subsequent reconciliation process in 2022 prior to publication of the draft regional plans. At this stage, in line with the January 2022 planning requirements, a single preferred solution has not been produced, although we present for consultation the evolving candidate solutions to meet the identified needs.
	Take a multi sector approach	Water resources planning is inherently less mature in non-PWS sectors, and the regulatory framework is also less robust and defined with regards to other sectors. A key challenge in this regard has therefore been the relative ambiguity of resource needs from other sectors. In part, this has been acknowledged by the nationally agreed focus on public water sector supply-demand across all regions during



## Requirement WReN regional plan position

the autumn 2021 reconciliation period. Our stakeholder group has presented in some cases evolving future scenarios (e.g. energy sector), but participants have acknowledged that the main plan action at this time is 'track and monitor' as we progress between planning rounds.

Therefore, a key focus of our plan development has been (and continues to be) to engage and work with other sectors to understand and identify potential needs, from which solutions or opportunities could be explored. This has been informed by both direct sectoral dialogue and via stakeholder forums. Whilst ultimately the potential for joint options or appraisal may be considered, in the first instance it has been necessary to undertake a parallel process to public water supply assessment (as has been the case in several other regional groups).

For each WFD management catchment within WReN, we have developed a dashboard¹ to summarise the national model environmental outputs, validate these with local knowledge and ultimately inform the development of the regional plan. Each dashboard includes an overview of current and future abstraction pressures by sector, modelestimated abstraction reductions to recover to environmental flow indicators, initial feedback through local validation and proposed next steps. These dashboards, which remain working 'live' documents at this stage, are presented in Appendix 6.

We will continue to explore other sector water needs, and where appropriate will develop joint options and/or opportunities as our understanding of other sector needs evolves (and into the next round of planning). Our options appraisal process includes for an SEA linked metric associated with multi-sector impacts and is also designed such that non-PWS scenarios could be constrained into the process in the longer-term as part of the design (see Appendix 4 for more details). This informal consultation stage is a key time that other sectors may wish to call out risks, opportunities or additional options now that the more tangible candidate solutions are presented (within Section 8 of this document); we have included a specific consultation question on this basis.

<sup>&</sup>lt;sup>1</sup> The dashboards are designed to be for technical level use, review and exploration, rather than accessible to all possible stakeholders. We have tiered our submission to allow consultees to explore our plan content to a level that they feel comfortable and is appropriate to them. For January 2022, the original detailed dashboards previously shared with stakeholders and regulators have been complemented by a higher level summary for less technical participants to understand their contents.



Requirement		WReN regional plan position
Requirement	Look beyond regional boundaries and use technical approaches compatible with other regions	WReN has fully participated in national discussions through the national Senior Steering Group, Regional Coordination Group and other relevant groups (such as modelling, environmental and technical advisory groups, etc.) to ensure that approaches are compatible. At a technical level, given the major influences on water resource availability, we have utilised nationally available stochastic datasets and regional climate projections scenarios in our plan; this allows us to jointly assess options in greater detail with neighbouring regions as required.  A particular focus area continues to be around the alignment of boundary import / export assumptions, including in the assessment of strategic trading options. This is critical, especially given the potential impacts of the loss of the existing Severn Trent to Yorkshire Water transfer on the WReN plan.  We have also been in active dialogue with neighbouring regions on the development of transfer options. This process has been inherently risk-based, linked to the outcome of the reconciliation process. In the case of the existing Derwent transfer, this has been a nationally recognised consideration, and we have been working with Water Resources West (WRW) to progress a candidate new Strategic Resource Option (SRO) to enlarge the Derwent reservoirs, which forms a potential alternative option to stopping the transfer to meet WRW's needs <sup>2</sup> .  In other cases, transfers have not been selected even under various combinations of planning scenarios by other regions. Nonetheless, we continue to engage with other regions and water companies around potential long-term trades so that we can flex up the attention on these should this be required (for example, we continue to explore further the level of
	Include enhanced environmental improvements and demand management	supply availability from Kielder Reservoir using the latest stochastic methods with WRW/UU).  In addition to government expectations, customer engagement places a high emphasis on demand management activity (particularly leakage reductions). WReN has included the policy aspirations to 2050 for leakage reductions and PCC into our supply-demand balance pre-reconciliation, a position that we would like to test support for during this consultation phase. This area will
	continue to be explored as part of our strategic choices; in particular, to determine the appropriate pace or glidepath to meeting these long-term aspirations. This will take account of affordability, cost-effectiveness, innovation, and certainty.	

<sup>&</sup>lt;sup>2</sup> Known as Upper Derwent Valley Reservoir Expansion Strategic Resource Option, or UDVRE SRO.



Requirement		WReN regional plan position
		We will also consider the pace and extent of demand management through our assessment of options to define the preferred plan. It is anticipated that the long-term position will continue to be reviewed in subsequent planning cycles, as progress is reviewed over time.
		With regards to environmental enhancements, the EA data provided with the National Framework to support environmental destination is inherently high-level. We have therefore continued to build on this, particularly given recognised limitations in the data which we have discussed with our local EA colleagues. For each WFD management catchment within WReN, we have developed a dashboard to summarise the national model environmental outputs, validate these with local knowledge (including from EA) and ultimately inform the development of the regional plan. At this time, there is insufficient evidence to include material reductions in our baseline DO impacts (i.e. our view of "BAU" impacts is essentially zero); this position has been reviewed and we believe is understood by regional stakeholders and regulator representatives. Notwithstanding this, we have explored enhanced / high scenarios of environmental destination in our plan to inform definition of an adaptive plan should the position on future needs change. We expect that, for this planning round, a need for further investigations will be stated as part of our plans, including assessment of nonflow based interventions.
		WReN has continued to engage with catchment partnerships and work to understand which catchments have particular water resources concerns. As described earlier, technical level catchment dashboards have now been produced as an output of our work, and these have been included in Appendix 6. These have been complemented for January 2022 by high level summaries for stakeholders who may wish to review less technically detailed information.
	Take a catchment-based approach	However, WReN also recognises that the public water supply systems in our region are highly integrated and go well beyond catchment boundaries, and there are therefore limitations to the catchment-based approach when considering water resources resilience at a regional scale. It is also important to note that the practical focus of the reconciliation period and regional plan submissions (i.e. as evidenced by the reconciliation summary in Appendix 9) has been at a water company resource zonal scale; this was required to achieve a suitably reconciled set of regional plans that can align into Company WRMPs.



## Requirement WReN regional plan position

We will continue to consider potential wider resilience to hazards other than drought in our identification and appraisal of options. In particular, we will ensure that options are designed to meet relevant minimum design standards of resilience (e.g., flood risk). Peak demand capacity is also a potential key consideration in parts of our region, and the benefits to this hazard will specifically be considered where Company level needs are defined, albeit these are considered predominantly a WRMP scale issue for the Yorkshire Water plan, rather than one that is material at a regional level.

The SEA process will ultimately account for a range of wider benefits or impacts as part of the options process, covering factors such as flood risk, water quality etc. We have included SEA linked flood risk and multi-abstractor benefits in our metrics associated for options appraisal (see Appendix 4 for further details).

Consider wider resilience benefits, including reducing flood risk when developing options There are also many communities in our region that are at significant risk of flooding, and WReN recognises that it has a role in consider how it can play a role in helping to protect those communities. This could mean, for example, that where surplus water resources exist then these are used to balance flood and drought risk, rather than trade to other regions. However, the use of stochastic and climate change data shows forecast deficits or reduced surplus in the region and complicates this picture. It increases the need to ensure an evidenced approach (given the potential cost and resilience implications) to appraising and implementing flood risk schemes. We have detailed our position on this evolving consideration in our main report, and in Appendix 4 we explain how such a scenario could be flexed into our plan decision-making in the future.

The potential for loss of the existing transfer from the Water Resources West area to the Yorkshire Water part of WReN (Section 7.4 of Main Report) would fundamentally change the configuration of the Yorkshire Grid, which leads to specific additional resilience considerations as part of options and solutions development. This has been accounted for as part of exploring the impacts and candidate solutions to address a potential loss of the import (Section 8.1, and including the proposed new UDVRE SRO), but further detailed work will be required towards the draft regional and WRMPs to optimise the final preferred solution whilst also taking into account stakeholder views provided through consultation. For the Yorkshire Water WRMP24 submission, a specific resilience metric may be introduced to help facilitate the identification of the formal preferred plan as part of further, more detailed examination of this issue.



Requirement		WReN regional plan position
	Be open to market mechanisms	WReN will be open to market-based solutions where these potentially meet the needs of our region. We will work with water companies to ensure that market discussions are aligned with regulatory requirements under the water bidding market (i.e., Bid Assessment Frameworks) as part of our options identification process, and we would welcome submission of options in response to this consultation document. We will fully consider options identified through these formal processes.
	Take into account growth ambition	WReN recognises the importance of the Northern Powerhouse agenda and will play its part in supporting economic resilience and growth. Our demand forecasts will suitably account for local development plans and thus facilitate growth. We have also specifically engaged with sectors with significant new or evolving growth, namely around the hydrogen economy and battery manufacturing for electric vehicles and taken account of these in forecasts where appropriate (and possible).
	Comply with SEA and HRA legislation	At this stage (January 2022), as with other regions, SEA and HRA outputs have not been fully completed, albeit various associated option level information has been explored as part of plan metrics to inform exploration of the candidate best value plans. The regional plan will ultimately ensure appropriate environmental appraisal is carried out on potential options to suitably inform the plan decision making. For water resources planning purposes, these assessments consist of Strategic Environmental Assessment (SEA), Habitats Regulation Assessment (HRA) and Water Framework Directive (WFD) assessments, including Invasive Non-Native Species (INNS) and natural capital considerations. Environmental assessments will be undertaken following the most up to date guidance, including the Water Resources Planning Guideline (WRPG) for WRMP24, EA Direction, UKWIR decision making/best value report and UKWIR environmental assessment guidance.  Water companies are required to undertake assessments at a WRMP level. Many options for consideration at the Regional Plans will feed into WRMPs via identification of new options to consider and by providing planning solutions with which WRMPs will need to align. Therefore, WRMP24 and WReN options will be assessed in an integrated way to ensure consistency and allow comparable assessments.  The proposed methodologies for environmental assessment have been documented in our Environmental Assessment



Requirement		WReN regional plan position
		Scoping Report, which is available on the WReN website. The Scoping Report was issued for consultation with the Environment Agency, Natural England and Historic England as well as wider stakeholders e.g., members of the WReN steering group to seek agreement on the scope and approach. Following consultation, the comments received were reviewed and amendments to the scope and/or approach have been made where relevant.
	Engage widely with interested groups	WReN recognises the importance of involving wider stakeholders and interested groups in the development of the regional plan; this consultation stage offers a key point for engaging widely on our emerging plans.
Should  Set out how the region was respond to drought and		To date, we have engaged with other sector and catchment representatives, and have held regular meetings with interested stakeholders to inform development of the plan. We will continue to maintain this engagement activity as part of, and beyond this consultation on our emerging plan. Whilst the August 2021 pre-reconciliation outputs were not designed to be published in the public domain, the resulting outputs (supply-demand needs, options and catchment dashboards) were discussed and made available to our stakeholder group.
		Where options or other drivers identify the need for cross boundary discussions, WReN will seek to work with existing groups such as the Idle & Torne working group or the Trent Working Group.
		As part of engaging with customers and citizens to inform development of the plan and to understand priorities particularly around objectives and metrics, we have completed a specific piece of customer engagement and consultation to gain insights and views in addition to those from larger, directly interested stakeholder groups. Working groups contributing to this consultation included both household and non-household customers, including water dependent businesses (e.g., farmers).
		Report and a more detailed summary is included in Appendix 8.
	agree common scenarios	The WReN supply workstream has facilitated close alignment in the approach to drought resilience assessment, with a consistent approach taken to stochastic hydrology and climate change particularly in the strategically important zones (Grid and Kielder) requiring system response assessments. Appendix 3 outlines the assumptions used for



Requirement		WReN regional plan position
		each zone, with a balanced approach taken between regional consistency and suitable approaches for the nature of a given zone (and to align to Company Drought Plans). The implications and insights from these assessments are still being fully digested both at regional and national levels.
		Levels of Service for TUBs will be set by individual companies with reference to their customers. We will communicate drought levels consistently within the regional plan, by way of presenting existing Company triggers. Consistent "Level x" terminology has been used in the plan across the Companies.
		Given the large geographical coverage of our region and major constituent water companies, we do not consider that we need to set common scenarios for drought actions; we do not have the same challenges as some other regions where company geographies are smaller and there is a clear benefit from joining up communication on drought measures. In the event of selecting or proposing implementation of options that enhance in-region connectivity, this position would be reassessed.
	Join up with drainage and wastewater management plans	As Water and Sewerage Companies (WaSCs), both YW and NWL are developing DWMPs in parallel with the WReN Regional Plan and company WRMPs. However, like regional water resources planning, DWMPs are a new requirement at AMP7 and will take time to develop and agree. Further, it should be noted that the scale at which DWMPs and WRMPs are developed is significantly different – for example, YW's water resources planning is focussed on just two WRZs, and 99% of YW's customers are within the Grid WRZs. By contrast, YW's wastewater system is spread across over 600 different networks.  Therefore, whilst we have engaged with colleagues across both sets of plans to consider where there may be mutual benefits for alignment (for example around datasets like demand and population forecasts), we expect minimal 'joining up' between the two plans for this round of planning. Notwithstanding that, we will continue to consider if there are any dependencies or interactions associated with our preferred plan, once developed.
	Seek to improve resilience to events other than drought, particularly floods	Please see the item 'Consider wider resilience benefits, including reducing flood risk when developing options' under the 'Must' section.
	Look ahead 50 years or more	As described earlier, we will consider a planning horizon of 60 years.



Requirement		WReN regional plan position
Contain all the detailed information required for WRMPs  Could  Contain all the detailed information required for drought plans	information required for	Our 'bottom up' approach means that WReN's regional plan and WRMPs will be consistent with, and reflective of, each other. The regional plan, however, will specifically be a regional level plan and retain focus at that scale – it will not seek to duplicate the Company WRMP. At the earlier stages of the regional plan development, focus has been on the material components of the strategic supply-demand balance, and regionally relevant options, recognising that lower-level refinement is expected towards and as part of the WRMP24 submission. Certain local or zonal scale issues in non-strategic zones (e.g. Berwick) are expected to be focussed upon at a WRMP24 scale.
	information required for	Drought plans will continue to sit at company level for this round of planning, as this is the appropriate level for documenting the activities required to manage during periods of drought based on the specific, and largely separate water resource zones. All companies in WReN have updated their Drought Plans in line with recent direction from Defra, these plans have been consulted upon, Statements of Response provided and plans updated in response to consultation. Companies are now (as of January 2022) awaiting direction from Defra to publish their updated Drought Plans as final documents.



## How to find out more

More information about Water Resources North, including our publications and how you can contact us, is available on our website, <a href="https://www.waterresourcesnorth.org">www.waterresourcesnorth.org</a>.

