



# Emerging Regional Plan Water Resources South East

Consultation Response Document

May 2022

Emerging Regional Plan – Water Resources South East	
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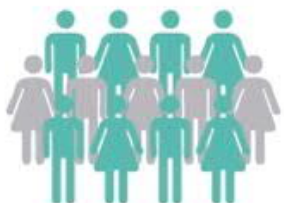
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# 1. Executive Summary

- 1.1. Water Resources South East (WRSE) is an alliance of the six water companies which cover the South East of England - Affinity Water, Portsmouth Water, SES Water, Southern Water, South East Water and Thames Water.
- 1.2. In January 2022, WRSE published its Emerging Water Resources Regional Plan for a period of public consultation. The emerging regional plan set out how WRSE planned to achieve a secure, resilient and sustainable supply of water for customers and other sectors, across a challenging range of potential futures.
- 1.3. The emerging plan gave early sight of the big issues and emerging solutions to gain initial feedback from stakeholders. It was a step in an ongoing process of plan development, and not yet a formal preferred plan. The proposals sought to ensure that water is used in the most sustainable way in the years to come, providing the water needed as the population grows, whilst improving the environment and adapting to climate change. The emerging regional plan presented proposals on the basis of a cost-efficient plan.
- 1.4. Consultation on the emerging regional plan took place between January and March 2022. As well as publishing documents for review and comments, a series of online workshops were held for stakeholders. Over 1,150 responses were received to the consultation.
- 1.5. This document is the Consultation Response. It provides a summary of the consultation responses, highlighting themes and issues raised in the responses received and providing WRSE's position in response to them. This document draws out the main themes and issues in responses, including those of the regulators, other organisations and individuals. It does not however seek to identify each individual respondent, nor each individual comment made. The individual detailed comments and information received will be used by WRSE in its continuing work on the preparation of the regional plan, which will lead to the publication of the draft regional plan in Autumn 2022.
- 1.6. Many of the comments received on the emerging plan were supportive of the adaptive planning approach being undertaken, and the proposals for significant leakage and water efficiency measures as well as greater protection for the environment through abstraction reductions.
- 1.7. A number of responses included challenges to population and environmental data and assumptions underpinning the emerging regional plan. Over half of the individual responses particularly focused on specific water resources options identified for development, such as large new reservoirs, strategic water transfers, and water recycling schemes. Concerns were expressed about the need for the schemes selected, and the environmental impacts associated with their development.
- 1.8. WRSE is progressing technical work to prepare the draft regional plan for consultation in Autumn. As well as completing ongoing environmental and other assessments, WRSE is undertaking additional modelling and sensitivity testing of the regional proposals as part of developing its best value plan. The consultation feedback received on the emerging regional plan is informing this ongoing work, and will assist WRSE in developing and testing the robustness of its draft regional plan proposals.
- 1.9. Alongside this regional work, the six water companies are preparing their individual water resource management plans for consultation later in 2022, Southern Water's in Summer 2022 and the other five companies in Autumn 2022. The themes and issues raised in feedback on the emerging regional plan, where it is relevant to specific companies and water resources options, will help inform the preparation of those individual plans as well. WRSE is very grateful to the individuals and organisations who took the time to respond to the emerging regional plan proposals, and looks forward to engaging further on the draft regional plan proposals in the Autumn.

## About our consultation



We received over **1,150** responses



We responded to almost **200** questions throughout the consultation



Our films were watched **1,300** times



Our documents were downloaded more than **2,200** times



**590** people joined our five webinars



Our consultation webpage was visited more than **8,500** times

## Who responded



Over **40** local government organisations



**15** businesses or trade associations



**15** environmental organisations



**9** governing bodies / regulators

## How Stakeholders Responded

Online responses  
**719**



Written responses  
**435**



**14** community and campaign groups



**9** canal trusts

## 2. Introduction and Purpose

### WRSE and the regional plan process

- 2.1. WRSE is preparing a regional water resources plan for the south east of England. It is an alliance of the six water companies supplying London and the South East - Affinity Water, Portsmouth Water, SES Water, Southern Water, South East Water and Thames Water – who have come together to jointly prepare the regional plan. Production of the plan is WRSE’s central activity, with the aim to secure water supply for future generations through a collaborative, regional approach.
- 2.2. The regional plan is being developed in partnership with regulators, water companies, water users in other sectors, environmental stakeholders and customers. It takes a regional perspective and includes a mix of options that together provide the water needed for the region’s people and places, alongside a range of wider benefits to society.
- 2.3. The key steps in the regional plan process are:
  - Emerging regional plan consultation - January to March 2022.
  - Draft regional plan consultation – Autumn/Winter 2022
  - Revisions following consultation – Spring 2023
  - Final regional plan – Autumn 2023
- 2.4. Further details are available on [our website](#). Information on the next steps in the regional plan process is set out in section 16 of this document.

### The emerging regional plan consultation

- 2.5. As the regional plan is currently a non-statutory plan, there is no legal requirement for consultation, although Government guidance in the form of the [Water Resources Planning Guideline](#) (the WRPG) and the Environment

Agency’s [National Framework for Water Resources](#) both state that consultation should be undertaken.

- 2.6. In preparing the emerging regional plan, WRSE sought to ensure that it was developed collaboratively with engagement and consultation opportunities throughout the development of the plan.
- 2.7. In January 2022 WRSE published its emerging regional plan proposals for a period of public consultation, as an important step in this process.
- 2.8. Further details of the consultation undertaken are set out in Section 3 of this document.

### Purpose of this Consultation Response document

- 2.9. This Consultation Response summarises the engagement undertaken on the emerging regional plan, and the comments and feedback received. It also provides WRSE’s consideration and response to the consultation responses and engagement outcomes.
- 2.10. The consultation responses and wider engagement feedback we have received on the emerging regional plan helps us to identify levels of support for the approach we are planning to take, and any key issues and concerns relating to the regional plan.
- 2.11. The Consultation Response also identifies, in light of the comments and feedback we have received, how WRSE plans to incorporate and respond to issues as it moves towards its draft regional plan to be published in October 2022. It also explains areas of feedback where WRSE is not proposing to change the regional plan in response.
- 2.12. Where relevant, the Consultation Response also updates on other technical work, modelling and regional co-operation and reconciliation that has been taking place since the publication of the emerging regional plan in January 2022, and that is planned for the coming months.

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- 2.13. The Consultation Response is being published on [WRSE's website](#). A notification of its publication will be sent to all those who responded to the emerging regional plan consultation and who indicated that they wish to be kept informed of our progress.



## 3. Summary of Regional Plan Consultation undertaken

### How the consultation was undertaken

- 3.1. The emerging regional plan was published on 17<sup>th</sup> January 2022 for an 8 week period of engagement and public consultation, ending on 14th March 2022.
- 3.2. WRSE and the six water companies undertook direct and indirect publicity and awareness raising ahead of the consultation, including direct emails to stakeholder organisations, media briefings and print and social media activity. Additional notifications were issued on the day the consultation started, and were repeated during the consultation period and ahead of the close of the consultation.
- 3.3. The emerging regional plan documentation that was published online comprised:
  - [Emerging regional plan consultation document](#)
  - Five technical annexes
    - [Introductory Annex](#)
    - [Annex 1 - The Challenge](#)
    - [Annex 2 – The Solution](#)
    - [Annex 3 – Our emerging regional plan](#)
    - [Annex 4 – How we are developing our plan](#)
- 3.4. Additional background documents and technical information were also made available through the online [WRSE Library](#).
- 3.5. A dedicated consultation website was set up with more information about the regional plan including the documents, short videos and other

information, and an online survey where response to a series of consultation questions could be submitted.

- 3.6. WRSE organised, and took part in, a number of online webinars relating to the emerging regional plan:
  - 17th January – Joint webinar with other regions
  - 20th January – Regional Overview
  - 31st January – East
  - 1st February – West
  - 2nd February – North
- 3.7. All of the slides from the five webinars, together with a recording of the presentation and discussion, were published online. WRSE also published a document containing the questions posed to WRSE during the webinars, with WRSE’s responses included.
- 3.8. An online interactive Q and A session was also held by WRSE on 1st March 2022, where questions were submitted and responded to on the day.
- 3.9. WRSE responded to requests for information and clarification that it received during the consultation period, and spoke directly to a number of organisations and individuals who made contact through the website.

### Levels of engagement achieved

- 3.10. The following levels of engagement were achieved during the consultation period:

#### Formal consultation responses

- 3.11. Approximately 1,150 written consultation responses were received:
  - 719 online questionnaire responses
  - 435 emailed and postal responses (including responses to questions and longer written responses)

- 3.12. Responses were received from a wide range of organisations and bodies, and from a significant number of water company customers within the region. This included responses from our financial and environmental regulators, local government (including counties, districts, the GLA and parish councils), environmental, business and consumer groups, residents and campaigning organisations.
- 3.13. A list of the organisations that provided a named response is enclosed at Appendix 1 to this document.
- 3.14. WRSE's summary of the issues raised in the consultation, and its response is provided in Section 4 to 15 of this document. It provides a summary of the consultation responses, highlighting themes and issues raised in the responses received and providing WRSE's position in response to them. This document does not seek to identify each individual respondent, nor each individual comment made.
- 3.15. A number of the responses are lengthy and technical, providing detailed information in support of the comments on the emerging plan. Some challenge the assumptions and methods that WRSE has used in preparing the plan, or provide a detailed commentary on the potential adverse environmental impacts associated with new water options selected in the emerging plan. All of the individual detailed comments and information received will be used by WRSE in its continuing work on the preparation of the regional plan, which will lead to the publication of the draft regional plan in Autumn 2022.

#### Website engagement

- 3.16. The WRSE consultation website was used extensively during the consultation period, and between 17 January and 14 March:
- The site had more than 8,500 visits, with over 600 visitors in one day
  - The most popular pages were:
    - About our consultation 3,762 visitors
    - The proposed solution 1,608 visitors

- Our emerging regional plan 1,192 visitors
- Around 1,100 people registered to use the site and 719 of them completed the consultation feedback survey
- The consultation document was downloaded over 1,100 times, the maps of the proposed strategies in excess of 700 times and the technical annexes over 440 times
- The consultation videos were watched 155 times directly via the site and a further 1,300 times via the WRSE Vimeo channel (there were links from the consultation site to the Vimeo channel). The most popular film was the 'What is a regional plan?' film, with over 350 views.

#### Online webinars and Q and A

- 3.17. WRSE had 590 people join one of the series of five online consultation webinars. Over 170 questions were submitted during the webinars. Many were responded to during the sessions, and WRSE collated the questions and responses and subsequently published them online.
- 3.18. During the online Q and A session on 1<sup>st</sup> March a total of 24 questions were asked and responded to.

#### Media coverage

- 3.19. There was widespread coverage of the consultation launch on 17<sup>th</sup> January 2022, across national, regional, local and trade media outlets.
- 3.20. In-depth features were broadcast on BBC News 24 and BBC and ITV regional TV news programmes. Coverage was also received on the BBC News website, regional and local radio and local newspapers / online news sites.

#### Other enquiries

- 3.21. WRSE received a number of requests for clarification or additional information during the consultation period, ranging from requests for help to find a specific piece of information, to a problem accessing or using the

online questionnaire, as well as more formal requests for information that had not previously been published as part of the consultation process.

- 3.22. WRSE liaised closely with the six water companies and sought to respond to all requests for assistance and information in a timely manner.

### Non-WRSE engagement and comments

- 3.23. This Consultation Response focuses on the engagement undertaken by WRSE and the responses it received during the consultation period.

- 3.24. The six water companies undertook a period of pre-consultation on their individual Water Resources Management Plans (WRMP) alongside WRSE's consultation. Some pre-consultation activity utilised WRSE's emerging regional plan and consultation material, as a means of securing feedback and information specific to an individual company's area and WRMP. For example, Southern Water undertook specific engagement with customers utilising elements of the emerging regional plan proposals relevant to its area.

- 3.25. This company specific engagement and related responses are not referred to or reflected in this WRSE Consultation Response.

### Comments on the consultation process

- 3.26. The emerging regional plan consultation materials were considered by many respondents to be a clear explanation of the challenges facing the region, and the actions proposed to be taken in response. WRSE did however receive comments relating to the consultation process itself, rather than the content of the emerging regional plan. This feedback and WRSE's response to it is summarised below.

- 3.27. A small number of individuals and organisations were concerned that the 'online' nature of the emerging regional plan consultation could preclude responses from individuals without access to the internet, or for whom such online information presented individual challenges and difficulties. Respondents welcomed the non-technical nature of the consultation

document, but some found it difficult to find and access more detailed information within the Annexes available online, or found the questions posed in the consultation document difficult to understand and respond to.

- 3.28. WRSE provided downloadable and printable versions of the various consultation documents on its consultation website, and provided the ability to post a written response to the consultation rather than an exclusively online response system. A mixture of non-technical and technical information was made available, designed to be accessible to a wide ranging potential audience from technical consultees to members of the public.

- 3.29. WRSE considers that given the scale of the WRSE region, and numbers of individuals and organisations potentially affected by the regional plan proposals, an online based consultation was, and remains, an appropriate means of engaging on the regional plan. Notwithstanding this, WRSE will give further consideration to the ways in which materials for the draft regional plan consultation in Autumn 2022 are made available, including considering what additional steps can be taken to assist those for whom online access is either not available or represents additional difficulties. WRSE will seek advice from organisations which represent such groups in determining the most appropriate methods to use.

- 3.30. A small number of respondents were concerned that WRSE had not individually written to individual organisations, customers or residents in the areas potentially affected by some of the water resources options identified for development in the emerging regional plan.

- 3.31. WRSE and the six water companies undertook extensive advance publicity for the emerging regional plan consultation, including notifying all levels of national and local government, including parish councils, as well as other known and identified environmental, business, residents and campaigning organisations. WRSE did not write individually to all customers within the South East region, or select locations adjoining options identified for development in the emerging regional plan for more targeted engagement.

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- 3.32. As is described in more detail in section 14 of this Consultation Response, WRSE received numerous responses from individual customers and residents commenting on options identified for development within their local areas. In some cases this was in response to information circulated by organisations supporting or opposing the option identified in the emerging regional plan, such as the Group Against Reservoir Development (GARD) which opposes the proposed SESRO reservoir in Oxfordshire, or organisations promoting the restoration of the Cotswold Canal as part of the Severn Thames Transfer scheme. Well over half of the consultation responses received related to one or more of the individual options in the emerging regional plan.
- 3.33. WRSE will work closely with the six water companies in planning the consultation for Autumn 2022 on the draft regional plan, and consider if there are ways in which it can improve communication of the plan proposals with potentially affected communities, particularly for the strategic options in the plan. WRSE will be co-ordinating consultations carefully with the water companies in any event, as both the draft regional plan and the five of the six WRMPs will be published for consultation in Autumn 2022 (Southern Water's draft WRMP is expected to be published earlier in the year).

## 4. Overall responses to the emerging regional plan

### Context

- 4.1. The emerging regional plan set out how WRSE planned to achieve a secure, resilient and sustainable supply of water for customers and other sectors, across a challenging range of potential futures. Whilst not a full draft plan, the emerging plan gave early sight of the big issues and emerging solutions to provide the opportunity for stakeholders to provide their feedback as the plan continues to be developed.
- 4.2. The plan set out how the combined challenges of leaving more water in the environment, population growth and climate change meant that significant additional resources would be needed, despite reducing demand for water by tackling leakage and helping people use less at the forefront of activity. The emerging plan identified a mix of solution types which will provide more resilient and sustainable water supplies, developing new water sources so there is enough for everyone, including during droughts and other events that can affect our water supplies.

### Summary of themes and issues raised in responses

#### Regulatory responses

- 4.3. The Environment Agency (EA) commended WRSE on the publication of an emerging plan that met the majority of its expectations for a regional plan. The EA considered that WRSE's emerging regional plan mostly demonstrates that it will meet the region's water needs, protect and enhance the environment, and reflect the needs of other sectors in the short and long-term. It recognised that WRSE had undertaken a significant amount of work, however it noted that there is still a considerable amount to do for the best value plan. It made a series of recommendations for additional work on demand management and drought measures, environmental destination,

adaptive planning and monitoring, testing the regional plan, options and decision making.

- 4.4. Ofwat noted that it has high expectations of WRSE, as it is the longest established regional group, and the region it covers faces the greatest public water supply challenges. It found that the emerging regional plan represented an impressive and complex body of work. Ofwat raised a number of specific points in its response (summarised later in this document), but noted that the comparatively wide range of points raised reflected the amount of material WRSE had published (compared to other regions) and the sophistication of the approaches developed.
- 4.5. The Drinking Water Inspectorate (DWI) provided comments to feed into all the regional groups preparing plans, highlighting that it expects water suppliers to ensure that they always plan to meet their statutory obligations relating to the quality of drinking supplies. When developing plans for new supplies, water quality risks must be fully considered. Additional comments were provided on option types, reported later in this document.

#### Questionnaires, organisational and individual responses

- 4.6. Natural England (NE) stated that it supported the emerging plan, but with caution, noting more work needs to be done on environmental assessments such as HRA, SEA and natural capital assessments. It considered that as the information provided was limited it could not conclude whether the options selected in the plan provide the most beneficial environmental outcomes to meet all statutory and policy requirements for environmental protection, improvement, and restoration.
- 4.7. Many respondents welcomed the work that had gone into the emerging regional plan, recognising the difficulties of preparing a long-term strategy for the region in the face of the range and scale of challenges it is facing. The increased emphasis on environmental protection through abstraction reduction was specifically supported, and respondents generally supported the twin track of demand management and resource development, albeit with comments on the details of the specific proposals.

- 4.8. As the emerging regional plan was a cost-efficient, and not a best value plan, the cost-focused nature of the selection of options and decision-making was a concern expressed by a number of respondents, who looked forward to broader based decision making for the draft best value plan. The need to incorporate wider environmental and social factors into the strategy was emphasised in responses.
- 4.9. As part of the online questionnaire, WRSE asked respondents “Overall, do you agree that the emerging plan, which presents the most cost-efficient adaptive planning solution, should be used as the basis to further develop our draft best value regional plan?”.
- 4.10. Unsurprisingly responses to this question reflected the views expressed on individual options selected as part of the emerging regional plan, with respondents who disagreed that it should be used as the basis for the draft best value plan amounting to approximately 82% of those who responded to this question (excluding blanks and don’t knows).
- 4.11. For many who disagreed, their response was as a result of their opposition to SESRO, with other respondents also opposing the plan due to the Havant Thicket water recycling option being included, or as they wished to see the Severn Thames Transfer (STT) canal option brought forward earlier in the plan period, and prioritised ahead of SESRO. GARD and its supporters were critical of the environmental ambition and growth scenarios underpinning the plan, considering them to be worst case, and concerned that the plan was not adaptive before 2040. They were also concerned at the lack of cost data and environmental assessments.
- 4.12. Of respondents who agreed, there was support for the focus on environmental ambition and demand management measures, and for the long term approach WRSE was taking and the need to ensure plans could adapt to future uncertainty.
- 4.13. Other respondents were concerned at the lack of details in the plan on the impact on customer bills, and asked whether higher bills were ‘worth the

effort’ for greater resilience based upon so much uncertainty, and questioned whether the plan is affordable. Others didn’t consider cost should be the defining factor, instead supporting long term environmental benefits. Some supported the proposals in the plan but wanted everything done more urgently, including demand management and leakage reduction.

## How WRSE will respond to the issues raised

- 4.14. The development, publication and consultation on the emerging regional plan is a step in an ongoing process of plan development, and that further stages of technical work would be undertaken ahead of the draft regional plan publication later in 2022, particularly the development of a best value plan from the cost-efficient plan used as the basis for the emerging plan.
- 4.15. The methods and approaches that WRSE has adopted in the plan are consistent with the series of Method Statements which WRSE published and consulted on in 2020 and 2021, ahead of the emerging regional plan. WRSE has sought to transparently explain and engage with stakeholders on the approaches it is taking, and the data and information sources underpinning the plan proposals through these Method Statements, with the emerging regional plan being the product of the resulting technical work.
- 4.16. WRSE is grateful for the support that it has received for its long term adaptive planning approach. It recognises that there are considerable uncertainties in relation to future forecasts, and is undertaking additional sensitivity testing modelling ahead of the draft regional plan. This will enable different scenarios to be tested, including the timing of delivery of key options, including ‘what if’ they aren’t delivered, and investigating what alternatives could be needed instead. This work is being undertaken alongside the further technical work necessary to prepare a best value plan for the South East region.
- 4.17. As a consequence of its stage of publication, the emerging regional plan did not include all of the technical detail nor technical appendices that would have accompanied a draft regional plan, and the lack of detailed information on cost, carbon and environmental information in support of the plan was

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highlighted as a concern in responses. WRSE will make more detailed information available as part of its draft regional plan consultation in Autumn 2022, including more information on bill impacts, costs and carbon and environmental assessments.

- 4.18. WRSE recognises that its regional plan will not meet the approval of all of its stakeholders, especially as there will be numerous new water resources options proposed within the plan in order to meet the scale of future challenges that the region is facing, and there will be opposition and concerns relating to a number of them.
- 4.19. WRSE is committed to working with affected stakeholders, both through the regional planning process, and through the six water companies individual work on their WRMPs. This work, together with subsequent applications for planning and other consents will provide a means to ensure that the potential environmental and other impacts associated with new water resource options will be fully explored, with necessary mitigation measures secured as part of the schemes.



## 5. The challenge and future proofing water supplies

### Context

- 5.1. The emerging regional plan explained where water supplies come from in the South East today, and the challenges the region faces in the future. The plan looked 75 years ahead to understand how much extra water we are likely to need to make our water supplies more resilient to drought and address the three main challenges we face – a growing population, climate change and the need to deliver long-term improvements to the environment.
- 5.2. The plan set out forecasts for future water needs under a range of different scenarios, recognising that the future is not certain and that we need to be able to adapt our plans to whichever future situations we may face. Whilst the future is uncertain, the emerging regional plan was based on detailed forecasts developed using the most up-to-date information to help us understand how these challenges could impact our water supplies.

### Summary of themes and issues raised in responses

#### Regulatory responses

- 5.3. The EA found that the emerging plan sets out the planning challenge to 2100 and has identified the options to meet a range of deficits within a least-cost adaptive plan. It was noted that significant work has been undertaken to resolve forecast deficits, but requested more detailed information to be published to enable it to validate the work that has been undertaken, such as through the planning data tables.
- 5.4. Ofwat considered that the WRSE plan is broadly in line with the scale of challenges articulated in the [National Framework](#), noting though that water requirements have increased significantly. It was recognised that WRSE has generated water supply and demand forecasts up to 2100, with intermediate

points at 2040 and 2060, and welcomed the application of this planning horizon as it has allowed the plan to explore a wide range of potential futures and the uncertainties associated with these.

#### Questionnaires, organisational and individual responses

- 5.5. Many respondents welcomed the emerging regional plan's explanation of the range and scale of challenges facing the region, and the work that WRSE was undertaking in response. Given the long term nature of the plan, and the significant range in the levels of water need identified in the different scenarios, the need for flexibility, and regular monitoring and review was also emphasised.
- 5.6. The significant challenges associated with accommodating future population and housing growth were a focus for many responses, reflecting wider community interest in how development is accommodated in the South East, and the infrastructure implications arising from it. The use of a range of scenarios in the plan was welcomed. Some respondents considered WRSE's projections to be greater than current ONS forecasts (issued in January 2022). Others identified that the 2021 Census data is to be published shortly and this could change forecasts.
- 5.7. Local authority respondents largely supported and welcomed the range of scenarios being used in the plan, noting the importance of certainty of water resources infrastructure delivery associated with the implementation of new housing and other developments within their area, and the need for evidence to support this for local plan preparation.
- 5.8. The housing growth scenario in the plan covers a period well beyond any local development plans. Some respondents were concerned that local constraints and factors that could result in lower growth would not be reflected in the plan. The absence of a relationship between the environmental capacity of a region and the levels of growth it was required to accommodate was a further concern, including the availability of water resources to accommodate the growth. The potential for future growth to exceed current projections was also highlighted, as was the relationship



between population growth and household formation, and the importance of this for future water use.

- 5.9. A number of respondents considered that the estimates of future water resources need used in the planning scenarios was wrong, and that the requirement for additional resources was over-stated as a result. This was particularly emphasised in responses from GARD and its supporters, and others opposed to SESRO who stated that WRSE's estimates for population growth, per capita consumption, leakage, abstraction reductions, and climate change were wrong, by significant amounts. GARD provided a detailed critique of the basis for the figures used in the emerging regional plan.

### How WRSE will respond to the issues raised

- 5.10. The scale of the water resources challenge facing England was set out at a national level in the Environment Agency National Framework. WRSE undertook further, more detailed work, as explained in the emerging regional plan, resulting in the publication of a WRSE Future Resources Requirements statement in March 2020, which was consulted on, and subsequently updated in February 2021. The scale of the challenge facing the South East region, and the resulting future water needs set out in the emerging regional plan, is based on this technical work.
- 5.11. WRSE accepts that there are considerable uncertainties, particularly the further into the future the forecasts look. However, it considers that the forecasts produced and the scenarios that have been developed for the regional plan as a result are valid and robust representations of the range of futures that the South East could experience.
- 5.12. WRSE does not accept the suggestion by GARD and its supporters that the emerging regional plan is based on worst case scenarios, nor that the need for new water resources options is inflated as a result. There is a wide range of alternative future scenarios that have been derived for assessment, reflecting the complexity and scale of the future challenges facing the South East. Providing such a wide range of potential futures is important given the

long term nature of the regional plan, coupled with the ability through the adaptive planning approach of monitoring and reviewing actual performance over time as part of the 5 year planning cycles, and adapting plans where necessary as a result.

- 5.13. The population and household growth forecasts were a focus of many comments, and WRSE considers that it has developed an appropriate set of forecasts as the basis for its regional planning. The Water Resources Planning Guideline requires regions and water companies to plan on the basis of a 'housing growth' forecast, ensuring that sufficient water resources are secured to meet forecast increase household demand. Whilst a number of respondents are concerned at the levels of growth resulting from this, it is not an issue that is within WRSE's control. Similarly, some respondents considered that the WRSE growth figures exceed ONS figures, or argue that the 2021 Census data will shortly be published and this will change the basis for the plan.
- 5.14. WRSE maintains that its forecasts are appropriate, and a robust basis for the preparation of the regional plan. Future changes that may result from the 2021 Census or future ONS updates can be incorporated within the five yearly plan making cycle, in subsequent regional plans. The range of future scenarios considered in the emerging regional plan already encompasses a broad population spectrum, including a very low forecast of growth.
- 5.15. WRSE is continuing to review the detailed comments that have been received, and this work includes reviewing the branch points used in the adaptive plan, and the specific growth and other scenarios underpinning the branches. WRSE will ensure that a clear explanation and justification for those selected as the basis future water resources need is set out in the draft regional plan in Autumn 2022. It recognises that there are respondents who disagree with the basis for the forecasts that have been developed. WRSE remains confident in the robustness of the technical work it has undertaken.

## 6. Protecting and improving the environment

### Context

- 6.1. In 2018, the Government published its 25-year plan for the environment which committed to achieving clean and plentiful water by improving at least three quarters of our waters to as close to their natural state as soon as is practicable. The Environment Act (2021) has since been passed into law and provides the legislation to support many of its objectives.
- 6.2. The emerging regional plan explained how WRSE was working with the Environment Agency to produce a range of scenarios to forecast how much water may be needed to replace unsustainable abstraction beyond 2050, and identified the potential solutions that could be needed to replace these abstractions.

### Summary of themes and issues raised in responses

#### Regulatory responses

- 6.3. The EA was pleased that WRSE has included a range of environmental destination scenarios in its adaptive plan, with its most challenging scenario based on the National Framework for Water Resources (NFWR) Enhanced scenario. It considered that WRSE and the six companies had engaged well with it to develop these scenarios, however, further work is needed to understand what these scenarios achieve for the environment, and how sites will be prioritised over the planning period. The EA stated that in the best value plan, it expects further description and evidence to demonstrate what the scenarios will achieve for the environment and whether the scenarios meet current regulatory commitments or go beyond these. It was noted that it will be important that stakeholders and regulators can see the costs and benefits with achieving those ambitions.

- 6.4. Ofwat recognised that WRSE is looking at some potentially very deep reductions in water abstraction in the long term. It asked WRSE to focus on what needs to change and by when to inform its prioritisation of actions and investigations to achieve the best long-term outcome and set these out clearly. It supported working with environmental regulators to understand and prioritise changes to abstraction to deliver a net gain to the diversity and quality of the environment and enable a better overall outcome.

#### Questionnaires, organisational and individual responses

- 6.5. Natural England (NE) cautiously welcomed the abstraction reduction approach and phasing, however it was not confident that equal weighting had been given to various designations and factors in the prioritisation approach. It stated that the prioritisation of catchments should not exclude or hinder designated sites restoration, many of which are not within waterbodies in the Water Framework Directive (WFD), and that various priority water-dependant habitats should be given equal weight to chalk streams. NE recommended that the term “unsustainable abstraction” is defined, and re-emphasised that meeting the statutory obligations to protect the environment must be prioritised over customer demand. NE will continue to work with WRSE and the water companies on these issues.
- 6.6. Waterwise was pleased that WRSE had modelled the Enhanced and BAU+ scenarios, but was concerned that the Central scenario preferred in the emerging regional plan was so different from either, and questioned whether meeting the needs of the environment was being traded off to meet the needs of other sectors.
- 6.7. Many respondents expressed strong support for greater environmental protection and abstraction reduction but asked for more specific details of what was being proposed, and the environmental benefits that would be achieved as a result. Some asked specifically what this would mean for their own local area. The absence of more detailed information led some respondents to say they were unable to say if what was proposed was appropriate or not. Others highlighted that unless more details were

- provided, there was a risk that the wrong decisions on abstraction reduction would be made, or there would be missed opportunities.
- 6.8. Respondents provided a significant variety of responses supporting different prioritisation of abstraction reductions. Many supported the prioritisation of chalk streams and other designated sites, and there was also support for prioritising headwaters and tributaries as water retained in the rivers would benefit the whole river. Some respondents wanted there to be a focus on those where there could be a 'quick win', whereas others supported prioritising those where abstractions were currently doing most harm. Overall, responses identified the need for evidence of the benefits that would be achieved as key to decision making.
- 6.9. The potential for abstraction relocation rather than reduction was also suggested, moving abstractions downstream to retain water in rivers for longer, as an alternative where freshwater flows into tidal or inter-tidal areas had little benefit. It was also suggested that prioritisation of abstraction reduction should take account of the environmental impacts of developing the alternative new resources required as a result, to provide a basis for 'trading' some forms of impacts with others.
- 6.10. As part of the online questionnaire, WRSE asked respondents: "*Abstraction reduction to protect the environment is likely to be the single biggest driver of investment in water resources over the next 25 years. Do you agree with our approach to establishing the appropriate level of abstraction reduction required across the South East England?*".
- 6.11. Responses to this question again reflected the views expressed on individual options selected as part of the emerging regional plan, with respondents who disagreed with the question amounting to approximately 71% of those who responded to this question (excluding blanks and don't knows), with the remainder agreeing and/or providing narrative comments.
- 6.12. Of those disagreeing, there was a concern (expressed by GARD and its supporters) that the levels of abstraction reduction are over-stated – higher than DEFRA or Chalk Streams First figures, and concern at the scale of challenge to offset reductions, and the new water resources options (such as SESRO) required as a result. Some respondents considered that abstraction reductions could be achieved earlier (before 2040) if different options were selected to replace lost abstraction, particularly a greater number of smaller options. Other respondents were concerned that the focus on abstraction reduction did not lead to leakage and water efficiency being lost/overlooked.
- 6.13. Of those agreeing, there was strong support for environmental benefits associated with abstraction reduction. Current abstraction rates were seen by many to be unsustainable, particularly those impacting on chalk streams. Many requested further details on the specific benefits that will be achieved in each catchment, with some requests for the proposed reductions at specific sources under different scenarios and their expected impact on flow recovery and wider ecological enhancement.
- 6.14. Other respondents were concerned that the required level of reduction will be extremely difficult to achieve, and/or that the consequential new resource options that would need to be developed could be more impactful than the abstractions that were being replaced. Some asked what the 'Plan B' would be if reductions aren't achieved? Others felt that the focus on flow as a determinant factor gave insufficient emphasis to natural capital, biodiversity gain & social/recreational benefits that could also be secured.
- 6.15. As part of the online questionnaire, WRSE asked respondents "*We'd like to hear your views on how we prioritise where abstraction is reduced. Please score the following criteria from 1 to 7, with 1 being the least important and 7 being the most important*".
- 6.16. In common with the non-questionnaire responses reported above, respondents provided a significant variety of responses supporting different prioritisation of abstraction reductions. Many supported prioritisation of chalk streams and other designated sites, and prioritising headwaters and tributaries. There was also support for prioritising areas where the greatest overall impact on the environment could be achieved, or abstractions likely

to be impacted early by climate impacts, over those that have resilience, to enable time for adaptation within the environment. Another suggestion was to prioritise areas where alternative sources of supply are available or are more readily deliverable.

## How WRSE will respond to the issues raised

- 6.17. The abstraction reductions being investigated are driven by the EA's duty to ensure that abstraction licences are sustainable. WRSE and the six individual companies are seeking to comply with an Environmental Flow Indicator (EFI) requirement, which when applied to flows within rivers and catchments will have a significant impact on the amount of water available within them for abstraction for public water supply. Compliance with the EFI is the requirement set by the EA and WRSE and the six water companies are seeking to comply with this through identifying a range of scenarios for how this could be achieved, and over which period of time.
- 6.18. As part of the preparation of the draft regional plan, WRSE is undertaking additional sensitivity testing around the timescales for achieving compliance and the glidepath towards it. Varying either the timescale or the glidepath changes the scale of abstraction reductions that need to be met by specific points in time, and therefore affects the resulting water resources deficits and new water resources options that need to be developed in response. WRSE is also undertaking its best value planning process, enabling it to move beyond a cost-efficient plan and consider how wider priorities and customer focus would change the details of what is being proposed.
- 6.19. The abstraction reduction scenarios have been developed by the individual companies, drawing from, and building on, those issued by the EA. In general, the company scenarios are lower than those of the EA. WRSE is continuing to discuss the consideration of abstraction reductions into the regional plan with the EA. It recognises that some respondents feel that the scale of reductions is overstated, whereas others (e.g. Natural England) would like to see faster and further progress than that currently planned, including to deliver wider environmental benefits.
- 6.20. A recurring theme in comments on the emerging plan was the request for additional details and information on abstraction reductions proposals, including the specific changes that are being proposed, and the benefits that will be secured. WRSE's draft plan will set out its proposed approach and programme for achieving the abstraction reductions in the draft regional plan in Autumn 2022. This will be at a regional level, however the individual company draft WRMPs that are to be published for consultation will include more information at a company level. WRSE and the companies will also set out more information on the plans for prioritising catchments for abstraction reductions.
- 6.21. The potential implications arising from EA planned licence capping proposals is a further factor that will need to be taken into account. Companies are reviewing their response to licence capping and there could be the potential to accelerate abstraction reduction. The details are company specific and dependent on alternative supply options being capable of becoming available to mitigate any impacts on public water supplies.
- 6.22. At this stage, the benefits can be articulated in terms of the EFI target being achieved, and thus the 'flow' benefit that would result from an abstraction reduction. Further details will only be capable of being demonstrated through more detailed investigations that are to be undertaken, for example through WINEP programmes, over the coming years. These programmes will enable the water companies and environmental and economic regulators to work through the uncertainties that exist, and to identify detailed proposals that take account of affordability and bill impacts, along with the environmental costs and benefits of solutions to offset planned abstraction reductions.
- 6.23. Our draft regional plan this autumn will set out our proposed approach and glidepath towards achieving abstraction reductions as the basis for consultation. WRSE intends to ensure that its approach is adaptive, enabling sufficient progress and action to be planned for and achieved over the short and medium term to 2040, so that any of the environmental scenarios could

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be achieved beyond that date, based on decisions to be taken nearer that time.

- 6.24. As more investigations are undertaken, so the detailed plans will be developed and refined in subsequent 5 yearly planning cycles, taking account of individual company environmental monitoring information. Ultimately it is the role of the EA in its abstraction licensing capacity, and Ofwat as the economic regulator for the water sector, to determine what is to be achieved and by when, based on the determination of plans submitted to them by WRSE and the companies.

## 7. Understanding the needs of other sectors

### Context

- 7.1. WRSE has worked with the main water-using sectors in the region to understand their future water needs and how resilient their existing water supplies are to serious droughts. In South East England, about 97% of the water abstracted is used by water companies to supply homes and businesses. The rest is predominantly used to generate power, by agriculture and horticulture, and to produce paper in certain areas of the region.
- 7.2. The emerging regional plan identified that nearly 100 million litres of additional water could be needed per day by 2060, primarily by the power and paper industries, and some horticultural users for trickle irrigation. Through engagement with these sectors they indicated that they can meet most of this increased need using their existing licences, by becoming more efficient and by increasing on-site storage. However, the paper and energy sectors requested that 30 million litres is included in the regional plan and delivered through options that could benefit other sectors.

### Summary of themes and issues raised in responses

#### Regulatory responses

- 7.3. The EA noted that WRSE has progressed work to better understand the wider water needs in its region. It considered it should be clearer how this information has been used to influence decision making in the plan, or the wider needs have been considered as part of options appraisal for the region. The EA looked forward to the further work WRSE is undertaking and encouraged WRSE to continue engagement with all sectors and consider whether options can provide multi-sector benefit.
- 7.4. Ofwat welcomed WRSE's work to forecast non-public water supply water needs and integrate these within the investment model. It stated that WRSE should continue to explore non-public water supply water needs and refine

forecasts based on engagement with other sectors, ensuring potential growth areas are investigated.

#### Questionnaires, organisational and individual responses

- 7.5. NE found WRSE's engagement positive, but considered that further work is needed to develop and bring more certainty of multi sector needs for the region. It noted that these have water resource challenges that impact on water sources and supply within the environment. Raising awareness in other sectors was important to highlight environmental implications and demonstrate why their contribution and better management of water usage is required for nature conservation.
- 7.6. Waterwise was pleased to see WRSE engaging with a range of non-public water supply abstractors, including from paper and horticulture sectors. It stated this was a major step forward in water resource planning, although there are a lot of uncertainties in predictions of future needs. Waterwise noted that there is a need to improve the understanding of future non-household public water supply needs and opportunities for non-household demand reduction, as it is an area where significant savings could be made.
- 7.7. Responses were received from organisations representing water users in other sectors, including from the National Farmers Union, Country Land and Business Association and RWE, and others. Responses supported the engagement that had taken place, and planned further engagement on the details of the needs of those sectors. Respondents highlighted that although a small proportion of overall water use, sectors such as agriculture and power are critical for energy and food security. Particular challenges facing those sectors include the move to net zero carbon by 2050, and the drive for more sustainable on farm agricultural water supplies. Future demands from those sectors are uncertain, and there is a need to ensure they are not overlooked as a result of focus on public water supplies.
- 7.8. As part of the online questionnaire, WRSE asked respondents:



*" We have assessed the future water needs of the other sectors that don't rely on the public water supply provided by water companies. Do you agree with our assessment?"*

- 7.9. Responses to this question again reflected the views expressed on individual options selected as part of the emerging regional plan, with respondents who disagreed with the question amounting to approximately 77% of those who responded to this question (excluding blanks and don't knows), with the remainder agreeing and/or providing narrative comments.
- 7.10. GARD and its supporters (who disagreed with the assessment), considered that there was a need for greater involvement of other sector stakeholders in WRSE decision making. Other respondents questioned how much WRSE had challenged the needs of other sectors and promoted efficiency and water use reduction in those sectors, rather than just incorporating their needs unchallenged. Some respondents questioned if the need of other sectors had been overstated.
- 7.11. There was support in responses for the engagement WRSE has had with other sectors, and recognition of the further work that remains to be done. More detailed information on other sector needs was requested, and it was suggested that as their future needs were highly uncertain, WRSE will need to keep forecasts under review – for example as agricultural and industry practices change over time, and they become more water efficient.

### How WRSE will respond to the issues raised

- 7.12. WRSE is committed to continuing its engagement with other sectors, to better understand their future water resources needs and consider how those can be met alongside the other challenges facing the region. Whilst long-term water resources planning is a key activity for water companies, for many sectors this is a new area of focus, and one for which there is a need for further development of forecasting and projections of future needs. WRSE will be working closely with the Multi-Sector Advisory Group in seeking to achieve this, and to reduce the level of uncertainties in other sector forecasts for subsequent regional plans.

- 7.13. The scale of water use by other sectors is lower in the South East region (approximately 3% of demand) than, for example in the east of England (25% of demand, rising to 40% at peak), and WRSE's engagement and approach has reflected this. Water Resources East's governance structure is different from WRSE's as a result, something identified in responses by GARD and its supporters. WRSE considers its approach to be robust and appropriate given the contribution of other sector demand as part of the overall challenges facing the South East region.
- 7.14. Some respondents asked WRSE to challenge the needs of other sectors more, and to encourage water efficiency and water saving amongst organisations in those sectors. WRSE is engaging with these sectors on water efficiency measures, both individually and collectively, and there is a driver for these organisations to improve their efficiency for both financial and environmental reasons. Other sector partners had indicated that much of forecast demand could be met within existing licence limits, however the EA's licence capping proposals could significantly affect the ability of other sectors to meet their future water resources needs in this way. WRSE is working with the EA and other sectors to understand the potential implications arising from this. If those licences are capped, this could significantly increase the levels of additional water needed from WRSE to meet other sector needs.

## 8. Planning for an uncertain future and adaptive planning

### Context

- 8.1. The further ahead we look the more uncertain the future is. To help us make the right investment decisions the emerging regional plan explained how WRSE is taking an adaptive planning approach. This split the planning period into three phases over the next 75 years (2025-2040, 2040-2060, and beyond 2060), and set out nine pathways each of which reflected a different future scenario, made up of different combinations of population growth, climate change impacts and levels of abstraction reduction so we can see how much extra water will be needed under each.
- 8.2. This approach enables the plan to identify all the potential options that might be needed, under the range of scenarios, including how we might need to change the options we choose to deliver as we move from one pathway to another. This allows WRSE to take action sufficiently early to adapt to the more challenging scenarios as they emerge, and develop schemes in a way that minimises the risk of unnecessary investment.

### Summary of themes and issues raised in responses

#### Regulatory responses

- 8.3. The EA welcomed WRSE's adaptive planning approach, recognising that the work WRSE has undertaken is complex and ambitious. It questioned whether not identifying a specific pathway as a preferred pathway meets the expectations of the Water Resources Planning Guideline (WRMPG). With a single pathway for the first 15 years, the EA considered it unclear what actions would be taken if the assumed demand savings were not achieved and what alternative options would be needed to make up any shortfall in demand reductions, although it noted WRSE has stated the need to include a monitoring plan as part of the adaptive plan implementation. In developing the draft regional plan the EA suggested WRSE should consider further

testing of the assumptions for the branch points, including the timings, the impact on deployable output of moving to 1:500 and other climate change scenarios in the short-term if appropriate. This should provide confidence in the adaptive plan and the options that have been selected and when.

- 8.4. Ofwat asked WRSE to explain its approach to adaptive planning more clearly including why pathway branch points are excluded in the first 15 years. It supported WRSE taking an adaptive planning approach, but asked WRSE to revisit and explain its thinking on the exclusion of branch points in the first 15 years and explore whether uncertainties are present which justify branch points prior to 2040. It suggested that both the drought resilience target date and adaptive pathway trigger point date are tested individually, and in combination, and this should include flexing the 1 in 500 year drought resilience 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 dates.

#### Questionnaires, organisational and individual responses

- 8.5. NE asked for more information regarding the scenarios and pathways (and the process determining these), including the criteria used to assess each pathway and scenario to validate that environmental statutory obligations can be met within all scenarios. NE supported further assessment (sensitivity tests) to inform the decision points of the best value adaptive plan. It also noted that the plan will need to track progress and be adapted within the first 15 years should options not be achieved. NE considered the approach of treating each pathway as equally likely and not choose a core pathway beyond 2040 as logical given the large amount of uncertainty. It considered that the best value plan needs to be flexible within its adaptive planning approach in order to prioritise and deliver the most appropriate and environmentally compliant solutions.
- 8.6. Waterwise noted that there is a lot of uncertainties in predictions of future needs, and in light of these uncertainties, looking at scenarios and developing an adaptive plan makes a lot of sense.



- 8.7. Various responses supported the principle of adaptive planning but advocated adopting one of the pathways as a preferred option for the plan to be based on, with regular monitoring and review undertaken to enable corrective action to be taken if necessary. Some supported taking the 'middle pathway' as the basis, whilst others advocated the lower or upper branches instead. Many of the comments supporting lower branches were influenced by the perceived reductions in water need that could result, and the potential to reduce the need for an option that they objected to (e.g. SESRO).
- 8.8. The linkage back to population and housing growth was made by a number of respondents, highlighting the need for flexibility to be embedded into the plan to accommodate changes to these over the planning period. Local authority and other respondents highlighted that growth is not linear and may vary across parts of the region, and supported close working between regional and local bodies as part of regular monitoring and review. The five yearly regional and company planning cycles was seen as being important to highlight, as part of the monitoring and review process.
- 8.9. As part of the online questionnaire, WRSE asked respondents:  
*"We've described our adaptive planning approach and the scenarios we've included in our adaptive planning pathways. Do you agree that we have planned for the right scenarios in each of the pathways, with a wide enough range for each of our key challenges, through our adaptive planning approach?"*.
- 8.10. Responses to this question again reflected the views expressed on individual options selected as part of the emerging regional plan, with respondents who disagreed with the question amounting to approximately 83% of those who responded to this question (excluding blanks and don't knows), with the remainder agreeing (11%) and/or providing narrative comments.
- 8.11. Many of those disagreeing with the question, including GARD and its supporters, considered that the plan had adopted worst case scenarios for population and housing growth which were inflating the requirement for additional water resources, particularly to 2040, and that unnecessary infrastructure will be built as a result. There was opposition to the single pathway to 2040, with respondents considering that this was not adaptive, highlighting that options being selected for that period (notably SESRO) included some of the largest, most damaging and least flexible elements of the strategy. There was a preference expressed for a plan that prioritised most flexible solutions immediately before committing to enormous and costly infrastructure projects that cannot be adapted.
- 8.12. Those expressing support considered that planning for a range of scenarios was the right approach, with a central pathway based on planned housing growth, and a high pathway necessary as a 'worst case' scenario allowing for uncertainty and flexibility. WRSE's approach was considered to provide flexibility to tailor solutions with sufficient lead in times to address changing circumstances.
- 8.13. Respondents highlighted the number of risks, even in the first 15/20 years, and questioned whether using only one pathway for the years up to 2040 may be too crude. Further information was sought on the processes for the monitoring and review of performance of the plan proposals, including how and when corrective action would be taken and what alternatives may need to be pursued as a result.
- 8.14. As part of the online questionnaire, WRSE also asked respondents:  
*"Do you support our approach to treat each pathway as equally likely and not choose a core pathway beyond 2040?"*.
- 8.15. Responses to this question again reflected the views expressed on individual options selected as part of the emerging regional plan, with respondents who disagreed with the question amounting to approximately 83% of those who responded to this question (excluding blanks and don't knows), with the remainder agreeing (13%) and/or providing narrative comments.
- 8.16. GARD and its supporters expressed similar comments to the previous question, suggesting that a single pathway should be chosen using most likely projections with small and medium scale schemes selected (that can be scaled up or down). It reiterated that it considered that the plan was not

adaptive and adopts worst case scenarios to 2040, risking investing in very cash and carbon expensive, unnecessary projects.

- 8.17. Of respondents expressing support, many considered that giving equal weighting to each pathway is the right approach, given the uncertainties, noting that ensuring the plan can adapt to new solutions along the way is also important. Some stated it would be wrong to try to define a single 'average pathway' for the years beyond 2040 as there are too many uncertain variables, and that using three pathways from 2040 onwards is probably a reasonable compromise. Again, the importance of monitoring and review was highlighted, as was the need for WRSE to remain very flexible.
- 8.18. Other comments suggested that the medium pathway will be seen as the most likely, with the other two as extremes, and that the concept of all being equally likely was difficult for many people to grasp. There was a range of suggestions for alternative approaches, with some stating that the 'worst case' scenario should be used as the basis for the plan, as it's only a question of time before you get there. Others considered that the focus should be on the high pathway in order to achieve real ecological benefit. More widely, it was suggested that WRSE should adopt the pathway with the least environmental damage, being good for people and nature.

### How WRSE will respond to the issues raised

- 8.19. The concept of adaptive planning is complex and WRSE sought to explain it as clearly and concisely as it could within the emerging regional plan consultation documentation. WRSE recognises from the consultation comments received that it will need to provide further and clearer explanation in the draft regional plan in Autumn 2022, particularly around the identification and choice of pathways, and the identification and decision making around branch points within the adaptive planning approach.
- 8.20. As part of preparation for the draft regional plan, WRSE is undertaking additional modelling and analysis to test the potential changes that would be made to the plan if alternative pathways and branch points were to be

adopted. This allows the number and types of options selected, and their financial and environmental costs and benefits under different situations to be modelled and assessed, so that WRSE can determine the most appropriate basis for the best value plan. This will enable WRSE to respond in the draft plan proposals to comments raised by respondents around the lack of a single 'preferred' plan, concerns that the single pathway to 2040 was not adaptive, or suggestions for alternative pathways to be adopted or branch point dates to be adopted.

- 8.21. A number of responses asked for further details around adaptive planning monitoring, including what WRSE and the water companies will monitor and how they would determine that changes within the adaptive plan need to be made. Monitoring would be undertaken within the context of the water companies existing WRMP annual reviews, and the five yearly plan making cycle for regional and company plans. Monitoring includes various environmental and water supply data, as well as the progress with the delivery of demand management and supply options set out in WRMPs, and WINEP investigations. More widely, monitoring would also include updated climate change and environmental forecasts, updated population data and housing forecasts through local plan annual monitoring reports. Further information on this will be published with the draft regional plan in Autumn 2022.
- 8.22. WRSE is undertaking further technical work on decision making within the adaptive planning process, including the identification and modelling of adaptive planning trigger points and decision points, to enable it to more clearly articulate how and when the consideration of alternative pathways needs to commence, and when an alternative pathway would need to be followed. Further information on this will be published with the draft regional plan in Autumn 2022.
- 8.23. As explained previously, WRSE does not accept the arguments advanced by GARD and its supporters that the adaptive plan is based on worst case scenarios, nor that the branch points and basis for the adaptive planning seek to support the case for strategic new schemes such as SESRO. SESRO is selected in the emerging regional plan under all of the branches in the plan,

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and so is required as part of the cost efficient plan to meet any of the pathways. It has also been argued that adaptive planning and the approach advocated by WRSE favours large scale options and will result in unnecessary new infrastructure being developed. WRSE strongly disputes this. WRSE's adaptive planning approach seeks to avoid unnecessary investment in new water resources infrastructure through ensuring that the options selected form part of the most efficient solution under any of the potential futures that are being faced. The modelling undertaken to date has been on a cost efficient basis, where the specific purpose of the model has been to optimise based on the least financial cost (this will now be taken forward into the best value planning process). WRSE is however, undertaking sensitivity analysis where it will remove some of the larger strategic options from the plan to determine the effect on its ability to deliver the overall strategy, and to identify which alternative options would be selected as a result. This will be reported in the draft regional plan to be published in Autumn 2022.

## 9. The Proposed Solution – efficient use of water

### Context

- 9.1. The emerging regional plan promoted the need, between 2025 and 2040, for £5.1 billion of investment across South East England to reduce how much water is used and wasted. In the first 15 years of the plan this could provide more than half of the total water needed to secure supplies. Temporary measures that reduce discretionary water use during droughts were also included in the plan, and the plan identified the need for the Government to introduce new policies that will deliver long-term reductions in water use across society.
- 9.2. The emerging plan set out how much total demand for water should be reduced across the region and in each water company area, giving water companies the flexibility to deliver leakage, metering, and water efficiency programmes that best meet the needs of their customers, address the specific challenges of their local areas and use new technologies as they develop.

### Summary of themes and issues raised in responses

#### Regulatory responses

- 9.3. The EA recognised the ambitious demand management strategy in the emerging plan and was pleased to see the South East water companies considering ambitious targets given the historically high per capita consumption (PCC) in the region. It asked WRSE to provide assurance that it is achievable and can be relied upon to reduce consumption and balance supply and demand. It asked WRSE to ensure that the plan contains clear, robust, and detailed programmes setting out what demand management actions will be implemented and what savings will be achieved. It also needs to identify the alternative options within the adaptive plan if the assumed savings are not achieved. It asked for confirmation whether WRSE is aiming

to achieve the 110l/h/d (litres per head of population per day) PCC target by 2050, and on leakage further detail on the measures to be implemented to meet targets to provide confidence.

- 9.4. Ofwat asked WRSE to clarify what level of personal consumption it expects to reach by 2050, and to detail the demand management options and glidepaths to meeting the demand reductions expected. It wanted to see the impacts that different demand profiles have on decision making, and therefore costs and benefits, in the period up to 2040 and beyond. WRSE is asked to test whether uncertainty associated with the achievement of company-led demand reduction can be managed within its adaptive pathways, and to consider including the uncertainty in government initiatives (which is stress tested) in its adaptive pathways so these can be used to plan supply and demand options to resolve potential future deficits. It wants to see sensitivity analysis undertaken 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.

#### Questionnaires, organisational and individual responses

- 9.5. NE supported the demand management, leakage and water efficiency measures put forward, considering it important to be as ambitious as possible to reduce environmental pressure. It asked for information to demonstrate progress to date and whether the region is on track to achieve the targets associated with those options, noting the importance of monitoring before 2040 to ensure alternative options are developed if/when necessary.
- 9.6. Waterwise fully supported the ambition in the plan to deliver significant public water supply demand reduction, and was pleased to see the increase in investment proposed in the early years of the plan to achieve this. It requested further details of the breakdown of investment across demand management activities in the plan, and requested that WRSE takes a clearer position on smart meter roll-out for household and non household customers, and advocates for a requirement for large scale future housing developments to be water demand neutral. In relation to Government

interventions, Waterwise was pleased to see WRSE clearly explaining where Government policy is needed to help deliver demand reductions, but questioned WRSE's position on the 110l/h/d target stating that it does not include government policy interventions.

- 9.7. Many respondents specifically welcomed and supported the proposed focus on water efficiency and leakage reduction. A number of local authorities emphasised the key role of setting water efficiency standards for new homes and non-household properties, and the role of retro-fitting existing stock. Whilst individual authorities can set local standards, a more co-ordinated approach at national or regional level was seen as beneficial.
- 9.8. A number of local authorities in Sussex highlighted the water neutrality constraint associated with abstraction impacts on designated sites, and the resultant requirements being imposed on new house building in that area. This emphasised to them the importance of robust water efficiency measures being identified and implemented through the regional plan, and locally through WRMPs. Some authorities stated they were already seeking to set standards achieving 110l/h/d or even tighter, and highlighted work that indicated a target of 85l/p/d was achievable. It was highlighted that local targets were having mixed success at Local Plan examinations.
- 9.9. Support for Government interventions was expressed, but with the request that these were implemented sooner to support the work being achieved by individual authorities. Numerous respondents stated that waiting for some interventions until 2040 and 2060 was too little and too late.
- 9.10. The need for innovation and the role of the water industry and wider partners in developing and rolling out new technologies to support leakage reduction and demand management was emphasised. Smart metering was highlighted as having a key role to play in educating customers, and in formulating tariffs and other incentives around sustainable water use.
- 9.11. Tackling leakage was a priority for many respondents, with some emphasising a perceived lack of progress within the South East region

compared to elsewhere in the UK. The significant contribution that leakage reduction could make was welcomed and supported, although concerns were expressed over the likelihood of the targets being met. Some respondents also questioned the effect that achieving reductions in use could have on the additional measures (TUBs (Temporary Use Bans)/NEUBs (Non Essential Use Bans)) deployed in a drought, and the risk that those become less effective tools.

- 9.12. The importance of promoting non-household water efficiency was emphasised in a number of responses, recognising the significant potential savings that could be delivered and the financial and environmental benefits that would result.
- 9.13. As part of the online questionnaire, WRSE asked respondents: *"Reducing the demand for water through leakage and water efficiency activity contributes to more than half of the total amount of water needed in the first 15 years of the emerging plan. The balance then shifts to include a greater reliance on supply side solutions, particularly in the more challenging future scenarios. Water companies are committed to delivering these reductions, but they are reliant on customers making sustained reductions in their water use over the long-term. Do you think our plan strikes the right balance between demand and supply solutions and the risks associated with delivery of such solutions?"*.
- 9.14. Responses to this question again reflected the views expressed on individual options selected as part of the emerging regional plan, with respondents who disagreed with the question amounting to approximately 86% of those who responded to this question (excluding blanks and don't knows), with the remainder agreeing (9%) and/or providing narrative comments.
- 9.15. Those disagreeing with the question considered that the proposals did not go far enough – they supported water efficiency and other measures, but wanted them to go further and faster, particularly on leakage reduction. Respondents identified the differing performance on leakage across the region and asked why the poorer performing companies could not achieve the levels others had already met, and were proposing to get to. The lack of

- detail on metering and smart metering, and the consequential potential to incentivise or penalise customers water use was also highlighted.
- 9.16. Amongst those agreeing with the question, there was clear and strong support for the implementation of measures for leakage reduction and water efficiency, and many saw this as a pre-requisite ahead of new resource development.
- 9.17. Other respondents were concerned about the likelihood of the projected savings being achieved. These concerns included whether reducing leakage by half is going to be achieved in the 15 years planned, and concerns that if leakage reduction continues at current rates up to 2040 (and as a result, percentage losses are then lower), the predicted leakage and water efficiency reductions for 2040 - 2060 will not be achievable. A number of respondents questioned whether the demand management measures had been the subject of the same level of scrutiny and risk modelling as supply options, asking how this will all be monitored and when will corrective action will be taken if the targets aren't met.
- 9.18. As part of the online questionnaire, WRSE also asked respondents:  
*"The plan assumes that the Government will introduce new policies that will support more efficient use of water across society - through labelling of water-using products by 2024, introducing a minimum standard for all water using products by 2040 and tightening the water efficiency requirements within the Building Regulations for new homes by 2060. Do you support these interventions and the timing of their introduction?"*
- 9.19. Responses to this question again reflected the views expressed on individual options selected as part of the emerging regional plan, with respondents who disagreed with the question amounting to approximately 68% of those who responded to this question (excluding blanks and don't knows), with the remainder agreeing (27%) and/or providing narrative comments.
- 9.20. The majority of those both disagreeing and agreeing with the question supported the implementation of Government interventions, but considered that the proposals should be implemented sooner.
- 9.21. Those disagreeing felt the proposals were too little and too late. Concerns were expressed that the measures were dependent on the political whim of the day, and that as a result the plan leans too heavily on uncertainties for success. Others questioned why it was necessary to wait 18 years to introduce minimum standards, noting that large numbers of inefficient water using products will be installed in both new builds and older housing stock by then. Government explicit promotion and support for compulsory metering was also sought.
- 9.22. Other comments recognised that many individual local authorities were seeking to implement measures but the piecemeal approach was neither efficient nor effective. There was support for the Government taking more specific positive interventions now, with many concerned at the period of years any Government led proposals would take. Some considered that the plan should be much clearer on the specific water efficiency measures that would be proposed, or that WRSE and the water companies should be campaigning and lobbying harder against the unconstrained supply of water, including seeking to limit development in some areas.
- 9.23. As part of the online questionnaire, WRSE also asked respondents:  
*"Do you think it is appropriate for Temporary Use Bans and Non-Essential Use Bans, that reduce demand for water further during droughts, to be used as options in this regional plan?"*
- 9.24. Responses to this question again reflected the views expressed on individual options selected as part of the emerging regional plan, with respondents who disagreed with the question amounting to approximately 65% of those who responded to this question (excluding blanks and don't knows), with the remainder agreeing (31%) and/or providing narrative comments.



- 9.25. Of those disagreeing, GARD and its supporters considered that the plan appeared to be business as usual until 2040, and that WRSE was delaying measures through selecting schemes that could not be delivered until then. Schemes that can be implemented quickly should be brought forward, protecting more quickly. Others were concerned that using TUBs and NEUBs was not really a solution to the problem, just a quick fix. Resilience improvements should mean doing something about all of this sooner.
- 9.26. Of those agreeing, respondents felt that in drought situations every option should be available (all tools in the toolbox), and that they recognised the role TUBs and NEUBs play, in exceptional circumstances. It was suggested that evidence from customers who have seen these types of usage controls understand the reasons (provided they're well explained) and customers will respond positively.
- 9.27. Other respondents commented that WRSE and the water companies should be able to 'design out' the need for such measures, and were concerned at the potentially significant water supply disruption to communities and business activities. It was noted that customers would be happier if they saw water companies doing more to reduce leaks and investing more in the infrastructure. Others stated that TUBs and NEUBs should not be an excuse to make customers take responsibility for failing infrastructure, a lack of investment, and poor planning.
- ### How WRSE will respond to the issues raised
- 9.28. The demand management measures selected as part of the emerging regional plan form a considerable part of the overall solution to the challenges facing the South East region. The support for such a high emphasis on these measures expressed in the consultation responses is welcome by WRSE. It recognises, however, that this reliance on demand measures is not without risk, and that many respondents are seeking further details and information on the specific measures that are to be adopted, how their progress will be monitored and what corrective action WRSE would take in the event the planned for savings are not secured.
- 9.29. WRSE's draft regional plan will provide more information on this, at a regional level, and this will be supported by the individual company WRMPs providing greater company level insight of the demand management strategies that they are proposing to implement. It should be noted also, however, that precise details of individual schemes would continue to be developed by the companies as part of their business plan submissions to Ofwat for funding approval.
- 9.30. Some respondents, including the EA, considered that the emerging regional plan was not explicit in its statement of WRSE demand reduction ambitions, and on the 110l/h/d aspiration by 2050. Whilst every effort was made to be clear, WRSE recognise the concern raised. In future publications WRSE will ensure greater clarity on this important issue is included, both with regards to achieving the 110 l/h/d target and the government support which the plan relies upon to deliver this aspiration.
- 9.31. Through the emerging regional plan proposals, WRSE and the six water companies are committed to significant increases in demand management performance, as a core element of the overall plan strategy. For Portsmouth Water, this will entail the introduction of universal smart metering programmes. For others this will involve a continuation of measures already being implemented, albeit at a faster pace and deeper rate of penetration. Metering, leakage reduction and water efficiency both within household and non-household sectors is supported and welcomed by stakeholders, and the companies recognise the scale of the challenge required to achieve the significant water savings that have been incorporated into the regional plan.
- 9.32. WRSE will be undertaking sensitivity runs and scenario testing to evaluate the implications for the regional plan should these savings not be achieved, or should progress take longer than predicted. In these circumstances it would be expected that other water resources options may need to be brought forward in time, or potentially over the longer term this could require additional options to be selected for development than is currently the case. The monitoring of individual company performance through annual

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reviews is a critical part of the overall process, feeding into monitoring at a regional level.

- 9.33. Some respondents suggested that deeper savings could be made earlier in the planning period, and WRSE will test the extent to which different levels of savings could be achieved and by when, although significant earlier savings are considered unlikely to be deliverable and as such high risk.
- 9.34. Some respondents were concerned that the measures in the plan appeared to stop in 2050, whereas in fact this is not the case. Others wished to see proactive lobbying from WRSE for earlier Government interventions, and for the adoption of smart metering and tariffs for the incentivisation and penalisation of water savings, and unrestricted water usage accordingly. WRSE and the water companies in the South East, together with the other regions in the UK, are actively working with Government on the planning and implemented of interventions, and support measures to bring these forward earlier for the clear and direct benefits that they will bring. In relation to metering, there has been significant progress within the South East region over the recent past, and WRSE will look to explain this, and the savings secured, more clearly as context within the draft regional plan. There is active support for smart metering and a number of companies are investigating (or proposing to investigate) the tariff options that can be available following universal metering implementation.
- 9.35. The widespread support for leakage reduction was coupled in responses by respondents asking whether the planned reductions would be achieved and how, given what was seen as differing rates of achievement across the six water companies. It is recognised that the levels anticipated are challenging, and will require alternative techniques to be adopted, e.g. area mains replacement (replacing all pipes in an area) as opposed to more traditional 'find and fix' strategies. The contribution of metering and telemetry within the distribution networks should also not be downplayed, as these significantly improve company's ability to identify and investigate potential leaks in a timely manner.



## 10. The Proposed Solution – new water sources

### Context

- 10.1. Our emerging regional plan identified a number of potential schemes that could provide new water supplies for the future, based on our assessment of the feasible options included in our regional investment modelling to identify the most cost-efficient, adaptive solution.
- 10.2. The emerging regional plan set out the new water recycling, reservoirs, transfers from other regions, groundwater abstraction and storage, and desalination proposals identified as necessary to meet the scale of future challenges facing the South East region. The plan identified which options were required, where and when, as part of the cost efficient emerging regional plan for consultation, as well as potential alternatives that could be chosen instead of, or as well as. WRSE explained how it will complete additional technical work and modelling of these options before agreeing the draft best value plan for consultation in Autumn 2022.

### Summary of themes and issues raised in responses

- 10.3. Note that this section covers comments on new water sources options in general. Comments on specific options are summarised in section 14 of this document.

### Regulatory responses

- 10.4. The EA was pleased that WRSE has considered a large number and variety of options, but expects more detail to be provided in the best value plan on the options, justification for selection and rejection, sensitivity testing, and environmental assessment. The EA also noted some inconsistent option information presented in WRMP24 pre-consultation compared to the emerging plan and with the gated process for SROs. It expects cross-

company or cross-regional options to be consistently presented in all the relevant regional and water company plans.

- 10.5. The EA recognised that WRSE has identified options beyond the statutory 25 year planning period, and noted uncertainty with these, including the planned implementation of less environmentally acceptable options (e.g. desalination and water recycling) to meet some of the more challenging future scenarios and ensure the longer term deficits are met. The EA commented that the innovation required to make them acceptable has not yet been identified, and it is unclear whether it is a feasible assumption to make.
- 10.6. Ofwat stated that the WRSE emerging plan is not always clear or consistent on which options are being selected when and what is driving the selection. It asked WRSE to explain more clearly in the draft plan which options are selected at what time and why they represent a low regret, least cost programme, and to clarify how it has considered options available to enhance existing assets before looking to new solutions, giving the example that WRSE has looked at 16 desalination options and 12 new reservoirs, but only one reservoir expansion scheme. Ofwat asked WRSE to ensure that the range of options within each option type is sufficient to allow real choices between them, including comparably sized alternative options with similar lead in times. More widely, Ofwat asked regions to make sure that proposed solutions are adaptable and that smaller scale options aren't discounted in favour of larger solutions. It noted that regional groups should think carefully about the deliverability of the plans from a practical perspective, including supply chain constraints and affordability concerns.
- 10.7. The DWI highlighted that resource schemes such as desalination and water recycling can introduce risks associated with treatment, including the challenge of remineralisation, blending (and associated changes to taste or feel), existing and emerging contaminants, and potential network impacts from corrosivity, all of which need to be appropriately assessed.

### Questionnaires, organisational and individual responses

- 10.8. NE asked for more detail to be provided on the supply options, justification, and environmental assessments to be able to adequately respond. It noted that many options in the consultation document are medium and high risk in terms of potential impact to the environment (in particular to designated sites) both in the short term (up to 2040) and more so in the long-term (2040+). NE stated that the shift to rely more on supply options such as desalination and water recycling in more challenging scenarios is concerning, and that NE would require more information on these options as well as Aquifer Storage and recovery (ASR) and planned reservoirs to ensure environmental compliance before they can be determined deliverable. NE advised caution around relying on transfers/imports from other regions, especially as other regions have their own environmental constraints. It advocated every effort being taken to minimise reliance on water from other regions and use the water resources within region more efficiently.
- 10.9. The importance of collaboration with other regions was emphasised by a number of respondents, with many including GARD querying why there were not more options to import water from other parts of England and Wales to meet needs in the South East. The impact that achieving one in 500-year resilience has on the availability of potential regional transfers was noted as a real difficulty and one that undermines the principle of sharing resources. Water Resources West welcomed the collaboration that had taken place with WRSE to date, particularly over the Severn Thames Transfer (STT) and Grand Union Canal (GUC) options selected in the emerging regional plan. It emphasised the importance of the forthcoming regional reconciliation round, ahead of the finalisation of draft regional and company plans, and for consistency between the plans. The Canal and Rivers Trust also emphasised the role of its infrastructure in transfer options into the region, such as STT and GUC.
- 10.10. Concerns were expressed by a number of respondents about the financial cost and carbon impacts of the numerous water recycling and desalination options in the emerging regional plan. The potential for environmental impacts associated with the construction and operation of the schemes, including associated with the disposal of waste products and resulting water quality and other impacts was identified as a specific concern. The need for water recycling and desalination plants to be 'always on', albeit at reduced capacities, with consequential carbon and other impacts was also highlighted. A lack of detailed information on carbon, and measures to achieve net zero, including carbon offsetting, associated with the options selected in the plan was seen as a weakness, especially in the context of the climate emergency. Some respondents considered that water recycling and desalination should be options of 'last resort' in the plan, whereas others considered them to represent secure solutions that would be resilient to drought.
- 10.11. A number of respondents made a direct link between the demand management and leakage reduction proposals in the emerging regional plan and the development of new resource options. The importance of tackling leakage robustly, and promoting reduced customer water usage were seen as essential pre-requisites ahead of, or alongside the consenting and implementation of new resource options. Others suggested that new options should not be capable of being progressed until companies reduced leakage first.
- 10.12. Some respondents from the agricultural sector highlighted the contribution that relatively small-scale on farm reservoirs and other solutions could bring, and sought greater support for their development. Other respondents sought assurances that water recycling and desalination options would not result in water quality or other implications for nearby or downstream abstractors, and supported the potential for co-located renewable energy as part of their development.
- 10.13. The potential economic benefits associated with the construction of significant new water resources options was recognised by respondents, with support for maximising local employment and educational initiatives associated with them.

- 10.14. Many respondents requested that more detailed information on the available options was published alongside the plan. Some advocated a process whereby stakeholders could review and challenge options much earlier, before they become available options for regional and company plan preparation.
- 10.15. As part of the online questionnaire, WRSE asked respondents: *“Do you agree with the mix of options that provide new water supplies for the region within our plan - reservoirs, desalination, water recycling, new transfers, improved abstraction from groundwater storage and ASR schemes? Do you think that some options should feature more or less in our plan to secure future water supplies?”*
- 10.16. Responses to this question again reflected the views expressed on individual options selected as part of the emerging regional plan. Respondents who disagreed with the question amounted to approximately 80% of those who responded to this question (excluding blanks and don’t knows), with the remainder agreeing (18%) and/or providing narrative comments. Approximately 62% of respondents disagreed with the question and opposed SESRO, and approximately 8% agreed with the question, but wanted canal transfers to be used earlier in the planning period.
- 10.17. Respondents disagreeing with the question cited their opposition to specific options selected in the plan, including SESRO and Havant Thicket Water Recycling, or their support for the canal STT option. These comments are explored in more detail in Section 14 of this document.
- 10.18. More widely, some respondents considered that the plan is too focused on large scale options, and that there was a need to focus on small / medium sized options that are scalable as these would be more readily adaptable as the scale of future challenges becomes clear. The inclusion of a considerable number of desalination and water recycling options was highlighted as a concern by some respondents, particularly in terms of potential energy and carbon impacts they could have. Other respondents, however, felt that those options, together with savings from water efficiency and leakage reduction, could be sufficient for low to median scenarios, meaning other larger schemes were not required. The relative lack of imports from other regions was highlighted as a concern by some respondents who felt this could provide a larger proportion of the needs of the South East.
- 10.19. Those agreeing with the question supported the inclusion of a mix of options in principle, including as the diversification of sources improves the level of resilience. Using a range of water resources option types was considered appropriate in order to effectively manage water and ensure a sustainable approach. Many respondents wanted to see a clearer assessment of the benefits the individual options would bring versus the cost and environmental impact. There was support for more storage and less reliance on pumping, although some respondents considered that new water supplies should be located close to places that require the water, to reduce transfer distances.
- 10.20. Other comments included concerns at the deliverability of the plan, given its focus on a small number of large and high risk strategic options. Respondents asked what WRSE would do if they are delayed or refused. The carbon impacts of the plan was also highlighted as a concern, given that a lot of high carbon intensity infrastructure was planned. Further detail was requested on how this would be offset and mitigated.

## How WRSE will respond to the issues raised

- 10.21. Whilst many respondents would have preferred to be able to review and comment on this information alongside the emerging regional plan documents that were published in January 2022, WRSE considers that the documents published at that time gave sufficient information for the emerging plan strategy and proposals within it to be understood and responded to.
- 10.22. However, as it always planned to do, WRSE will ensure that more detailed information is published as part of the draft regional plan in Autumn 2022, including on the individual options selected, costs, carbon and environmental assessments.

- 10.23. As has previously been explained, WRSE is undertaking additional technical work and sensitivity testing of the regional plan proposals, which will enable it to give further details in the Autumn around the decision making on individual options, including for those included within the draft regional plan and also those rejected, including reasons for rejection. This will enable those commenting on the plan to better understand the basis for the decisions undertaken. WRSE recognises that a number of respondents have sought greater clarity on the reasons for the inclusion of specific options in the plan and will seek to address this.
- 10.24. Similarly, in relation to costs, WRSE will be including additional cost information in the plan and information on customer bill impacts, so that the financial implications of the regional plan strategy can be better understood and commented on.
- 10.25. A number of respondents raised concerns both in general terms, and on specific options, in relation to carbon and associated environmental impacts of the proposals in the emerging regional plan. Further assessment and quantification of carbon information is being undertaken to provide greater granularity of information on the proposals in the plan, along with an increased explanation of any proposals for carbon offsetting, and a narrative to explain the overall carbon impacts in the context of net zero carbon targets. This was information specifically sought by respondents in relation to water recycling and desalination proposals, and larger resource options such as reservoirs and long distance transfers with high embedded construction or operational carbon.
- 10.26. The emerging regional plan set out the progress that had been achieved at that time on the completion of environmental assessments of the regional plan strategy as a whole and the individual selected options with it. WRSE is committed to publishing information alongside the draft regional plan in Autumn 2022 to explain how the environmental assessments have been undertaken and the conclusions reached, including in relation to specific legislative requirements such as HRA, WFD and other assessments. This will enable those reviewing the plan to better understand and judge whether the most appropriate options have been selected in the plan.
- 10.27. Where options with potential for adverse environmental effects are selected in the plan, particularly later in the planning period, a description of the environmental risks relating to the options will be set out, including work to further investigate them, and potential alternatives to these options that may need to be considered should the environmental impacts not be capable of being overcome.
- 10.28. As has been explained previously, WRSE is undertaking sensitivity testing around options selection, including testing the effect on the overall strategy if individual options were delayed or refused consent. This information will be included in the draft regional plan in Autumn 2022.
- 10.29. Some respondents were concerned that the plan was overly focused on large options and/or concerned at the deliverability risks relating to the plan having regard to both the types and specific details of the options selected. Strategic options such as SESRO, as well as water recycling and desalination proposals were specifically identified as a concern. Although WRSE has explored 1,400 options for the regional plan, there is a lack of available water resource options for WRSE to consider for inclusion in the plan. A number of the individual catchments in the South East region are over abstracted already, and have few if any options available within them for the provision of new water. At the same time, some options that would have been considered in the past have themselves now been ruled out due to risks relating to the sustainability of their abstraction over the longer term. This has led to a focus more on options for storage (reservoirs or below ground), transfers between areas, and more technical options involving water recycling and desalination which are resilient to risks of abstraction reductions affecting their future operability.
- 10.30. WRSE is also undertaking a further round of regional reconciliation with the other regional groups ahead of finalising the draft regional plan for consultation. This will enable WRSE and the other regions to ensure that

there is alignment between them on the selection of individual options. The lack of potential imports to the South East region was highlighted as a concern in a number of responses, and WRSE will re-test conclusions reached on the potential availability of water for transfers between regions in the regional reconciliation process. At the current time, it is understood that it is unlikely that any significant additional supplies will be available for the draft regional plan, reflecting that other regions' resources are also facing significant challenges under future abstraction reduction, growth and climate change forecasts.

- 10.31. The EA and Ofwat both highlighted the importance of ensuring that WRSE's regional plan, the individual company WRMPs and strategic options in the RAPID gated process utilise consistent information to ensure alignment between the different plans and decision making processes. To the extent that it is possible to do this, WRSE and the water companies certainly will. However, it needs to be recognised that the timing of the finalisation of individual plans and the timing of SRO submissions are different, and that there are likely to still be some differences as a result. This is particularly the case with Southern Water's draft WRMP, as the company has been directed by DEFRA to submit this in June 2022, ahead of WRSE's draft regional plan and the other companies WRMPs. The data underpinning Southern Water's WRMP will have to be derived from the January 2022 emerging regional plan as a result, and so it will differ from that used for WRSE and the other company plans which will benefit from updated data sets. This will be made clear in the relevant plans.

## 11. The Proposed Solution – transfers around the region

### Context

- 11.1. The emerging regional plan identified between £2.4 billion and £3.4 billion of investment in developing new transfers to move water around the South East more easily by 2060. This could see more transfers between different parts of the six water companies' supply areas and between different water companies, increasing the connectivity of the region.
- 11.2. Nearly 400 million litres of water per day can currently be moved around the South East. This could rise to more than 1.1 billion litres per day by 2060 in the most challenging future scenario. The emerging plan identified four new strategic transfers which would enable water produced by the major schemes to be moved to other supply areas, as part of its cost-efficient assessment, as well as alternatives that could be chosen instead or as well.

### Summary of themes and issues raised in responses

#### Regulatory responses

- 11.3. The EA stated it was pleased to see that WRSE has worked with neighbouring regional groups to include inter-regional SROs in its plan, as well as water companies within the South East. However, it found that there is limited information on all of the SROs within the emerging regional plan, including whether the planning assumptions and risks have been considered consistently between companies in WRSE and the neighbouring regional groups. It noted that as these are large infrastructure schemes, it would expect further detail on risks of implementation to be provided and accounted for within the adaptive plan.
- 11.4. Ofwat asked WRSE to engage with Water Resources East through subsequent reconciliation rounds, to understand whether there are potential

transfers from the East region into the South East as part of a best value plan.

- 11.5. The DWI highlighted water quality risks and issues associated with raw and potable transfer options. For raw transfers, considering the upstream risks and whether mitigation is required at the receiving location. For potable transfers, transfer times, disinfection risks, and mixing requirements in transfer infrastructure need to be considered. For both, the risk of associated changes to taste or feel, existing and emerging contaminants, and potential network impacts from corrosivity were highlighted. All of these factors need to be appropriately assessed.

#### Questionnaires, organisational and individual responses

- 11.6. NE identified that the use of new pipelines would only be acceptable if it is clearly evident that designated sites and priority habitats have been avoided wherever possible, and/or suitably mitigated/ compensated where appropriate to minimise ecological damage and landscape impacts and enhancement also delivered. It identified that long pipelines have the potential of increasing the risk of more water-related issues such as transfer of INNS and leading to water chemistry changes in the source waterbody.
- 11.7. The Canal and Rivers Trust supported the principle of using its infrastructure to facilitate transfers within the region, similar to its support for inter-regional transfers. A number of respondents supported canal and river based transfers over pipelines, for the environmental benefits that such transfers could bring, and also highlighting the significant energy and carbon impacts associated with pumping water long distances.
- 11.8. The importance of ensuring that new transfer options take account of the needs of other abstractors was highlighted in responses, for example where a transfer could divert river flows relied on by downstream abstractors in agricultural or energy sectors, who themselves may have limited alternative options available to them.



- 11.9. Questions about the long-term resilience of transfer options were raised by respondents, including whether there is a risk that water currently available to transfer might be restricted in the future, as a result of abstraction reductions or other pressures within the source area. Concerns were expressed that environmentally damaging options might be required in a source area to enable supplies to continue to be transferred to another area, and the acceptability of this was questioned.
- 11.10. As part of the online questionnaire, WRSE asked respondents: *"Do you support the use of new, potentially long pipelines to move water around the region?"*
- 11.11. Responses to this question again reflected the views expressed on individual options selected as part of the emerging regional plan. Respondents who agreed with the question amounted to approximately 88% of those who responded to this question (excluding blanks and don't knows), with the remainder disagreeing (8%) and/or providing narrative comments. Of those agreeing, approximately 46% of respondents supported the principle of transfers, but not the Thames to Southern Transfer (from SESRO) and approximately 11% agreed, but wanted canals to be used for transfers, e.g. STT or GUC. Many supporters expressed support for transfers into the region in their comments.
- 11.12. Those agreeing commented that providing transfers increased the ability to move water to where it is needed. Support was expressed for transfers involving the use of canals and rivers, ahead of pipeline transfers, although it was recognised that these may also be appropriate in some circumstances. Supporters sought the prioritisation of transfer options that have wider cultural and environmental benefits such as canals, contrasting the support that canal restoration options enjoy compared to levels of opposition to reservoirs or other strategic options. Some respondents supported the faster development of a network connecting the South East with other regions, and greater connectivity within the South East.
- 11.13. Of those disagreeing, concerns were expressed about the financial and environmental costs of pumping water long distances, with some respondents considering that long distance pipelines should be avoided. Others wished to see the development of more local options within the South East, for example to make the South East water neutral, avoiding a reliance on water that may not be available in the longer term. GARD and its supporters supported imports to the region, but were opposed to the Thames to Southern Transfer stating that water should be retained in the Thames catchment, not exported from it.
- 11.14. Other comments raised concerns about the lack of detailed information about the carbon impacts of proposed transfers and requested details on how this would be offset and mitigated, and the cost of doing so. Respondents requested the publication of information to enable the whole life cycle embodied and operational carbon emissions of individual options to be understood. The difference between raw and potable transfers was highlighted in comments, with the risks of Invasive Non Native Species (INNS), water chemistry and pathogens from raw water transfers noted as specific concerns.
- ### How WRSE will respond to the issues raised
- 11.15. Improved transfers of water between areas forms a key part of the strategy in the emerging regional plan. Some respondents raised questions relating to the carbon impacts and water quality and other impacts that can be associated with such schemes, there was strong support for these options as part of the plan. Whilst concerns were expressed by GARD and its supporters that water could be transferred from Thames Water to Southern Water as part of the regional plan proposals, WRSE considers that transfers between companies such as that are an essential part of developing an integrated and resilient water supply system for the South East region as a whole.
- 11.16. Many respondents indicated that they would wish to see the STT developed earlier in the planning period, and ahead of or instead of SESRO in particular. In the emerging regional plan WRSE identified that both SESRO and STT were required as part of the overall solution to the challenges being faced, and

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that the import of water through STT on its own was insufficient to meet the scale of deficits being planned for.

- 11.17. The very clear expression of support for canal-based transfers amongst respondents is acknowledged, and WRSE recognises the wider recreational, cultural and other benefits that transfers incorporating canal restoration proposals can deliver. The best value planning process that is currently being undertaken will move WRSE's regional plan beyond the cost efficient plan published for consultation in January 2022 to a best value draft regional plan in Autumn 2022. Alongside this best value planning, WRSE will be liaising closely with the water companies and SRO teams associated with STT to ensure that its decision making reflects the most up to date position on the STT options under investigation. Sensitivity testing around the use of the STT, including its timing, and the details of how water could be transferred will form part of this technical work.
- 11.18. The additional cost, carbon and environmental assessment information which will be published for the draft regional plan will provide information that a number of respondents were seeking in the emerging regional plan, including on the carbon impacts of transfer options, how water quality and INNS risks and impacts will be considered and addressed.



## 12. The Proposed Solution – catchment and nature based solutions

### Context

- 12.1. The South East water companies abstract water from 28 river catchments across the region. Improving these catchments is a priority for the regional plan to ensure the ongoing quality and quantity of our water supplies, and to deliver wider benefits to the environment and help it adapt to climate change.
- 12.2. The emerging plan identified more than 200 catchment and nature-based solutions which could be delivered across 25 of the South East’s catchments. Our early estimate of the cost to deliver these solutions is in the region of £350 million by 2040. The majority of these schemes do not form part of our cost-efficient solution and may only produce a relatively small amount of water. However, they were included in the emerging regional plan because they could help the environment become more resilient, while enabling abstraction to continue at a sustainable level.

### Summary of themes and issues raised in responses

#### Regulatory responses

- 12.3. The EA welcomed the development and inclusion of catchment solutions as part of the emerging regional plan, recognising the additional resilience benefits these can provide. It stated it looked forward to working with WRSE to understand the detail behind these catchment options, including the water resources benefit they provide, and understanding the rationale for the chosen catchments. It asked WRSE to provide further information on how these options will be considered in the best value plan decision making, and whether they will automatically be selected again.
- 12.4. Ofwat noted that whilst it was encouraging that WRSE has considered over 200 catchment options, the water resource benefits of these options are not

clearly explained. WRSE should clarify the benefits expected from these schemes and why they are best included in a water resources plan rather than drainage and wastewater management plans or through the business plans.

#### Questionnaires, organisational and individual responses

- 12.5. NE stated that it supported the catchment measures put forward, and requested assurance that catchment-based options will be explored further in preparation of the best value plan. It recognised there are opportunities to benefit the environment while investigations are ongoing, and that nature based solutions can have a large impact within catchments, particularly around restoration of wetlands and re-connecting these habitats in and outside designated sites, and between urban and rural areas. NE encouraged further discussions to support these innovative solutions, but also to ensure options deemed unviable are not unnecessarily progressed.
- 12.6. The wider benefits associated with catchment based solutions were highlighted and supported by many respondents, including flood and water management, water quality, and avoidance of further infrastructure based solutions that would result. Respondents also recognised the community support for such options and welcomed the further work proposed as part of the emerging regional plan to identify and implement such solutions. Their potential to support wider nature recovery and multi-functional green infrastructure solutions was particularly highlighted.
- 12.7. Some respondents questioned the proven water resources benefits of catchment based schemes and asked whether solutions that delivered such wide ranging benefits ought to be funded solely or largely through customers’ bills. Others, although supporting the plan, asked why more investigations of these options was needed and why companies did not already have information on the water resources benefits of these options.
- 12.8. As part of the online questionnaire, WRSE asked respondents: *“We have identified where water companies might investigate a number of new, more innovative nature-based solutions to improve the region’s water*

*catchments. Whilst these options can provide multiple benefits, the fact they are still relatively new can make it more difficult to be certain of the benefits that will be delivered and the return on investment. Do you agree that we should promote new, more innovative nature-based solutions in our plan to develop a better understanding of their future value and role in delivering water supplies and wider environmental improvements?"*

- 12.9. Responses to this question again reflected the views expressed on individual options selected as part of the emerging regional plan. Respondents who agreed with the question amounted to approximately 97% of those who responded to this question (excluding blanks and don't knows), with the remainder disagreeing (2%) and/or providing narrative comments.
- 12.10. There was very strong support for the identification and implementation of nature based solutions. Some respondents wished to see a greater reliance on measures such as this, questioning why there is not already sufficient evidence to demonstrate the water resources and wider environmental benefits that they will bring, such that they can be selected in the plan. A number of respondents asked for more details on the specific proposals that are proposed to be implemented, including the MI/d benefits that they would bring. Some respondents cited examples where the cost and return on investment of these options were shown to be comparable or cheaper per water conserved than engineering solutions.
- 12.11. The small number of responses disagreeing suggested that these schemes shouldn't distract resources and effort from water companies focusing on supplying water to their customers. Others stated that the scheme costs were too high for the small amount of water that would be produced. There were concerns to ensure that catchment options did not involve some form of 'experimentation' in environments that were already vulnerable.

### How WRSE will respond to the issues raised

- 12.12. WRSE is pleased with the strong support expressed for catchment and nature based solutions, and through the six water companies will be looking to further explore the potential benefits associated with their inclusion in the

regional plan. It recognises that these are not currently incorporated on a 'least cost' basis, but the significant potential for wider benefits associated with these options justifies their inclusion as options within the plan.

- 12.13. WRSE will provide further explanation of the relationship between catchment and nature based solutions included within the draft regional plan in Autumn 2022, and the role of individual company WRMPs, Drainage and Water Management Plans (DWMPs) and company business plans in their funding and implementation. This is particularly relevant for options where specific deployable output benefits and costings/funding needs to be developed and approved through subsequent plans and approval processes. As explained in the emerging regional plan there is a need for further investigation and design of specific options to enable detailed water resources and environmental benefits to be quantified. This is work that will be taken forward by the six water companies individually, through WRMPs, DWMPs and business plans, and ongoing catchment and nature based solutions work with a wide range of catchment partners.

## 13. The Proposed Solution – drought permits and drought orders

### Context

- 13.1. During droughts, water companies can apply for temporary drought orders and drought permits that allow them to temporarily abstract more water or abstract at a different time of year to help them supply customers if the drought becomes more severe. The South East water companies and the Environment Agency reviewed the impact of the 78 drought permits and orders available to them and have excluded 53 from the regional plan because of the potential impact they would have on the environment.
- 13.2. The emerging regional plan made clear that the remaining 12 drought orders and 13 drought permits will continue to be used as options in the early years of the plan until the region reaches one in 500-year drought resilience by 2040. After 2040, drought orders and drought permits will only be used if we experience a drought more serious than a one in 500-year event, with monitoring and mitigation measures agreed with the Environment Agency and Natural England to help protect the environment.

### Summary of themes and issues raised in responses

#### Regulatory responses

- 13.3. The EA noted that while the general principles on drought permits and orders in the emerging plan have been agreed, the specific drought permits and orders that have been included as options have not been agreed nor assessed. It noted that WRSE's approach to considering drought permits and orders as options appears to be in line with the WRPG, but noted that it is unclear how the decisions and assumptions that have been made on drought permits and orders as options impacts the wider selection of options.
- 13.4. Ofwat noted the commitment to not use drought orders or permits as options after 2040, except for events in excess of the 1 in 500 year return

period. It considered that WRSE should explore the cost, benefit and option selection impact of retaining the use of some drought orders and permits beyond 2040. It stated this was important to avoid unnecessary costs from resource development and to avoid the associated environmental impact that the additional development likely to arise from ruling out the use of drought orders and permits could bring.

#### Questionnaires, organisational and individual responses

- 13.5. NE agreed that drought permits and orders should be used as a last resort as they are damaging to the environment, and considered it positive that drought permits and orders aren't considered as options after 2040. It encouraged using less of these options before 2040 wherever possible, commenting that NE has concerns about a number of drought permit/orders that are expected to be used until 2040 in Hampshire/Sussex. It requested further discussions with WRSE about the suitability of these options being used up to 2040.
- 13.6. Whilst supporting stopping the use of drought orders and permits, some considered that their use could be ended sooner, especially if different replacement options were selected in the plan, including smaller options that could be implemented quicker. Some respondents also questioned whether the one in 500-year resilience will become arbitrary over the planning period, with the climate change uncertainty facing the region.
- 13.7. As part of the online questionnaire, WRSE asked respondents: *"Do you support our approach to stop using the majority of Drought Orders and Permits - only continuing to use a limited number during droughts until we achieve one in 500-year drought resilience, and stopping their use after 2040, unless we experience a drought more severe than a one in 500-year event?"*
- 13.8. Responses to this question again reflected the views expressed on individual options selected as part of the emerging regional plan. Respondents who disagreed with the question amounted to approximately 74% of those who responded to this question (excluding blanks and don't knows), with the

remainder agreeing (19%) and/or providing narrative comments. Of those disagreeing, approximately 56% supported ending the use of drought permits and orders sooner by selecting options capable of being delivered earlier in the planning period.

- 13.9. Of those disagreeing, GARD and its supporters considered that the new resource options selected in the plan were delaying when drought orders and permits were no longer required. It wouldn't be necessary to need drought permits and drought orders until 2040 if a different set of options were selected. Other respondents gave conflicting views, with some considering there should not be reliance on them beyond 2028-2030, whereas others felt there should be a continuing ability to rely on them in exceptional circumstances. It was suggested that individual drought orders and permits should be assessed case-by-case, in light of options that would be needed to 'replace' them, allowing the environmental benefits of their abandonment to be assessed against the impacts of new resource developments.
- 13.10. Those agreeing considered that drought orders and drought permits had been reached for too quickly by water companies in the past, to get them through intense periods of demand when they should have had better planning in place. There was support for reducing reliance on their use. Other respondents supported the exclusion of 53 out of 78 drought orders and permits, but asked for more information on the magnitude or potential impact of the remaining 25.
- 13.11. Other comments included questions why the one in 500-year requirement is necessary, particularly when this is not the case in Wales. Others suggested that there could be an argument to retain drought permits and orders if it is shown that one in 500-year cannot be achieved in an environmentally or cost effective way.

### How WRSE will respond to the issues raised

- 13.12. The one in 500-year requirement is derived from EA policy and the WRRPG requires WRSE and the water companies to achieve that level of drought

resilience through the current cycle of plan preparation. Some respondents asked for drought resilience to be achieved earlier or later in the planning period and sought information on the costs and implications of seeking to do so. WRSE is undertaking sensitivity analysis of the dates for achieving drought resilience as part of its current work, so that this can be made clear in the draft regional plan. This will include consideration of whether it could be achieved earlier or later and the resulting changes to the regional plan options selected as a result.

- 13.13. The decision making around excluding drought order and drought permit options from the plan was made by WRSE and the water companies, in consultation with the EA. Individual assessments of the options were made, and then shared for discussion with the EA, with the outcome being that 53 of the 78 options were excluded. Many of the individual drought options are in very sensitive and highly designated environments. The assessments took this into account, whilst also considering the availability of water resources in the area and the deliverability of new water resources options to meet any deficits. In the Test and Itchen catchments, as an example, the deficits arising from current and planned licence changes, and the time necessary to provide replacement water supplies is why options have been retained in the plan for the time being, despite the sensitivity of those environments. WRSE will look to provide additional information on the decision making around the drought options for the draft regional plan.
- 13.14. Some respondents considered that it was not possible to reach conclusions on the acceptability of drought options without considering the environmental effects of the water resources options that may be required as a result of removing drought options from the plan, and/or argued that there could be an argument to retain them if one in 500-year resilience could not be secured in a sustainable way.
- 13.15. WRSE will continue to liaise closely with the EA, and with Natural England, over the assessment of environmental effects associated with the drought and other options in the plan, to ensure that decisions are taken having regard to environmental assessment outcomes. Over the longer term, drought orders and drought permit options will remain available for

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selection in company drought plans for very extreme drought events,  
beyond the one in 500-year resilience that the regional plan will achieve.

## 14. Responses on specific options in the Emerging Regional Plan

### Context

- 14.1. The emerging regional plan identified a range of new water resource options proposed in the period up to 2075 to meet the future challenges the South East region is facing. These options include new reservoirs, water recycling, desalination, and water transfers, as well as groundwater storage and other schemes.
- 14.2. The plan identified the scale of water resources that the different options would provide, and explained their role in the overall strategy. Where options were selected in the emerging regional plan ahead of alternatives, commentary was provided to explain the relationship between different schemes. Explanatory text was also included to set out ongoing technical work being undertaken, including environmental and other assessments, and the relationship between the regional plan, company WRMPs and work undertaken on the SROs under the RAPID gated process.
- 14.3. As would be expected, the individual options were the focus of a large number of comments both from organisations and individuals. A summary of the comments specific to options are set out below.

### Summary of themes and issues raised in responses

#### SESRO (reservoir in Oxfordshire) – Thames Water and Affinity Water

- 14.4. SESRO was the option that received the largest number of individual responses, with approximately 500 responses expressing opposition to the proposal. Opposing responses were received from Oxfordshire County, Vale of White Horse and South Oxfordshire District Councils, GARD, Wantage and Grove Campaign Group, CPRE and other environmental and campaigning organisations, together with individual Councillors, Parish Councils and a large number of individuals. A large number of individual responses used

wording suggested by GARD as the basis for all or some of their response. Some responses provided a detailed critique of the proposal and the perceived environmental impacts associated with it.

- 14.5. Concerns were expressed that the emerging regional plan overstates the water needs of the South East, and that as a result the need for SESRO is not yet clearly established. Other respondents suggested that the emerging regional plan utilises abstraction reduction and growth scenarios higher than are necessary, in order to construct a need for SESRO and other strategic schemes. It was also queried why only SESRO of the strategic schemes is identified for delivery by 2040, and why the reservoir is being prioritised over other schemes.
- 14.6. The lack of detailed and comparable information on the 1,400 options considered by WRSE, and a clear justification for the selection of SESRO in the emerging regional plan was also highlighted. The lack of detailed published information was seen as a weakness of the planning process. Other cheaper, less environmentally damaging and less disruptive alternatives are considered to be preferable, including smaller options that could be implemented sooner, and potential alternative reservoir locations. Many responses highlighted a preference for constructing STT instead of SESRO. It was suggested that some of the environmental benefits that WRSE is seeking to secure are being delayed by focusing on a strategic reservoir which by WRSE's own timescales will take until the end of the next decade to be achieved. They could be achieved earlier if a different option was selected. The need to prioritise on leakage reduction first was repeatedly highlighted.
- 14.7. The organised and significant opposition to the proposed reservoir was highlighted by a number of respondents who questioned the deliverability of a regional plan reliant on SESROs implementation. Many responses highlighted specific concerns about the construction and operational impacts of the proposed reservoir, highlighting the lengthy temporary (8 year) construction impacts on local communities that are in close proximity to the reservoir site, and the significant and permanent landscape and other



environmental impacts of the bunded reservoir itself. Concerns were also expressed at the carbon impacts associated with such a large scheme, particularly in the context of net zero targets and the climate emergency, and questioned how the significant carbon effects could be offset.

#### Severn Thames Transfer – Thames Water, United Utilities and Severn Trent Water

- 14.8. Severn Thames Transfer (STT) was the option that received the second largest number of individual responses, with approximately 300 responses expressing support for the proposal, the majority of whom supported an option involving the restoration and use of the Cotswold Canals. Supporting responses were received from a number of local authorities in the area, canal, recreational and environmental organisations, and many individual respondents.
- 14.9. The principle of transferring water through STT was welcomed by many respondents as a means of securing additional resources into the region. Sharing water between regions was broadly supported for the greater resilience it delivers, although some respondents questioned whether such transfers are secure in the longer-term, especially as other regions have their own environmental constraints.
- 14.10. Respondents supported the use of canals for water transfer in principle, and specifically supported the STT canal option in preference to other options. Many of the respondents suggested that the option could be implemented earlier in the planning period, and in preference to what they considered to be less sustainable and environmentally impactful options, including SESRO. The potential for earlier and faster implementation was highlighted in many responses with concerns expressed why the option wasn't being selected earlier in the plan, in preference to SESRO.
- 14.11. Respondents highlighted the extensive community support that a canal based option would receive, and the long-standing and widespread community campaign for the canal restoration proposals. They also highlighted the wider recreational, cultural, heritage, social and

environmental benefits when compared with a pipeline based transfer option, particularly the linear biodiversity benefits of the canal corridor. The reduced carbon and energy use associated with the canal, when compared with a pipeline transfer, and recreational and tourism business benefits, were seen as significant benefits.

- 14.12. The canal based option was also compared favourably with other options selected in the emerging regional plan, with respondents concluding that no other infrastructure based solutions could deliver the range of benefits associated with the use of the canal. The financial benefits of using the canal as a lower cost solution than options including water recycling and desalination were also highlighted, as was the flexibility to vary the transfer volumes to reduce carbon use when large flows were not required.
- 14.13. Supporters of the canal based transfer suggested that previously expressed concerns over Invasive Non Native Species (INNS) and navigational impacts on boat passage from water transfer through the canal have been investigated and can be adequately addressed.

#### Havant Thicket Water Recycling and Transfer – Southern Water and Portsmouth Water

- 14.14. The proposal for water recycling associated with Havant Thicket Reservoir was the option that received the third largest number of individual responses, with approximately 60 responses expressing opposition to the proposal. Opposing responses were received from Havant Borough Council, individual Councillors, Parish Councils and a number of environmental and campaigning groups in the local area, as well as individuals. Some responses provided a detailed critique of the proposal and the perceived environmental impacts associated with it.
- 14.15. Concerns were expressed that the proposals were a significant change to the recently consented reservoir proposal, and that water recycling into the reservoir would alter the nature of the reservoir, potentially affecting water quality within it and also downstream. Respondents described the proposal as recycling 'sewage' into the reservoir. This change was considered to be



unacceptable, both in principle and due to adverse environmental effects that could arise from it. Responses suggested that the reservoir proposal would not have been approved if this proposal had been highlighted earlier, and questioned why there hadn't been more engagement on the proposal with affected communities. Concerns were expressed that the ecological and recreational benefits associated with the reservoir would be adversely affected. The carbon and water quality impacts associated with the water treatment processes and proposed lengthy transfer pipelines were also a concern, and it was considered that other better alternatives existed.

- 14.16. NE noted that the scheme - supplemented by treated water from Budds Farm appears to align with Southern Water's Gate 2 submission, but noted that environmental assessment is ongoing and still not determined. NE stated it is continuing to work with Southern Water and Portsmouth Water on the Havant Thicket/Water Resource option to determine if it is a suitable SRO option going forward.

#### Grand Union Canal – Affinity Water and Severn Trent Water

- 14.17. A number of respondents supported the use of canals for water transfer in principle, and specifically supported the Grand Union Canal (GUC) option included in the emerging regional plan. Many of the respondents suggested that the option could be implemented earlier in the planning period, in preference to other less sustainable and environmentally impactful options. The role that GUC could play in securing supplies for the north of the region, and the resulting abstraction reductions that could be delivered as a result was also identified.
- 14.18. Some respondents questioned why the Beckton re-use (water recycling) option was selected ahead of GUC in the emerging regional plan and suggested that the best value assessments being undertaken for the draft regional plan should result in GUC becoming the preferred option.

#### Other Options

- 14.19. Whilst the principle of water transfers was largely supported by respondents, opponents of SESRO expressed opposition to the proposed

transfer of water in the Thames to Southern Transfer SRO. Their opposition was to the export of water from Thames given the water stressed nature of the Thames Valley and corresponding availability of resources in that area. A small number of responses also commented on the Grafham (Affinity Water), Thames to Affinity Transfer, and potential imports from Eastern England reservoirs, both supporting and identifying concerns relating to the options.

- 14.20. Further information was sought by some respondents on the proposed reservoir at Blackstone (Southern Water), including more details on the specifics of the proposal and the potential environmental impacts and infrastructure requirements associated with it. The need for new abstraction from the River Adur for this option was questioned, in the context of the emerging plan's focus on abstraction reduction.
- 14.21. A small number of respondents commented on the proposals to increase the capacity within Bewl Reservoir (Southern Water), and to develop Broad Oak reservoir in Kent (South East Water), both options identified later in the planning period in the emerging regional plan. Some respondents were concerned at the environmental impacts associated with the options, whereas others considered the options could be implemented sooner, and in preference to what were seen as environmentally more damaging desalination or water recycling proposals.
- 14.22. GARD provided a detailed response to the emerging regional plan consultation, with technical queries and its own assessment of a number of the options both selected in the emerging regional plan, or options not available for selection in the cost efficient plan. Of the options selected in the emerging regional plan, GARD specifically commented on SESRO, STT, GUC, Thames to Affinity Transfer, Thames to Southern Transfer and London Re-Use, commenting on the deployable output contributions of the options, cost and carbon information, and the technical and environmental performance of the options compared to alternatives. Of options not selected GARD questioned why Thames Water dropped its Thames estuary desalination option, and Southern Water its Fawley desalination option, and

considered both should have been retained. GARD also considered that transfers into the region through STT, GUC and from reservoirs or desalination in East Anglia had not been given proper assessment or priority in the emerging plan.

- 14.23. The identification of four desalination plants around the Kent coast in the emerging regional plan was specifically highlighted by some respondents, questioning whether this was the most efficient approach, and also whether alternative options including water recycling had been fully explored.

### How WRSE will respond to the issues raised

- 14.24. WRSE recognises the volume of comments received on individual options selected in the emerging regional plan, and the strength of opposition and support that has been expressed for different options in the plan. Some of the options, including SESRO, are long-standing water resource options that have formed part of previous individual company WRMPs, whereas others are being selected in plans for the first time.
- 14.25. The detailed comments raised in consultation responses on individual options have been shared with the WRSE teams undertaking technical and environmental assessments of the options as part of the preparation of the plan. WRSE will be publishing further and more detailed information on its option appraisals and environmental assessments alongside its draft regional plan in Autumn 2022. The published information will set out WRSE's assessment of the strategy set out in the draft regional plan, and the individual options selected as part of that strategy. Where the regional plan has considered alternative strategies and options, these will also be set out and assessed. Information will be published on the 1,400 options considered as part of the regional planning process, including the reasons for options being rejected from further consideration.
- 14.26. A number of the comments on the options selected in the emerging regional plan raise specific and detailed comments and concerns about the potential environmental impacts associated with their construction and operation. It is important to note that WRSE is preparing a regional plan, which sets out the

overall strategy for meeting the water resources needs of the South East region over a lengthy planning period. The options selected in the plan are being subjected to technical and environmental assessments of appropriate detail for such a regional plan. These are not, however, detailed environmental impact assessments (EIA) such as would be necessary to support the consideration of individual applications for planning and other consents.

- 14.27. The regional plan is one part of the overall process for the consideration and identification of options, which also involves the individual company WRMPs, the RAPID gated process for the SROs under consideration, and subsequent applications for planning and other consents. Some of the detailed issues raised by respondents, for example concerns about the impacts of detailed construction processes for the options will not be fully explored until the EIA for the scheme is prepared, in some cases a number of years in the future.
- 14.28. WRSE will ensure that it publishes technical and environmental assessments of the options selected in the draft regional plan, alongside the plan, such that organisations and individuals can understand the basis for the decisions that WRSE has taken. At the current time there is ongoing consideration of the options that may be selected as part of the draft regional plan, including those selected as part of the emerging regional plan as well as additional or alternative options to them.
- 14.29. A number of responses have made comments supporting the selection of individual options before or after other options, or suggesting alternative scales or capacities of options as being preferable. WRSE will be undertaking sensitivity testing and analysis of alternative strategies as part of its best value planning process for the draft regional plan. This will enable WRSE to test what effect selecting an option earlier, later, or not at all would have on the overall strategy and the resulting options that are selected instead. This will also enable WRSE to test how the strategy in the plan changes as different best value metrics and indicators are prioritised, reflecting customer and stakeholder views on their priorities for the plan. Information

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to explain this testing and assessment will be published with the draft regional plan.

- 14.30. The specific and detailed comments made on the individual options, including SESRO, STT, Havant Thicket Water Recycling, GUC and other options, that have been summarised in this section, are being raised and discussed by WRSE with the relevant water companies and teams working on SROs. This will enable WRSE, the water companies and SRO teams to take account of the issues raised as they undertake the technical and environmental assessments of the options as part of the regional plan and WRMP preparation, and the RAPID gated process.
- 14.31. At this stage of the process, however, WRSE is not seeking to provide a detailed response to the issues raised. WRSE will ensure that more detailed information on the assessment of costs, benefits and potential environmental effects of the options are made available in Autumn 2022, for the options selected in the draft regional plan, and the alternatives to them. This will include a reasoned justification for the overall strategy in the draft regional plan, and for the selection of options within that strategy.

## 15. Other comments on how we are developing our plan

### Context

- 15.1. The emerging regional plan was published as a step towards the publication of the full draft regional plan. It was recognised in the consultation documentation that the emerging plan was a cost efficient, and not a best value plan, and that there was further technical work to be undertaken on the plan which could still change the details of the proposals in the plan.
- 15.2. The majority of comments raised in responses have been summarised in the preceding sections of this document. The section below identifies other issues raised in responses.

### Summary of themes and issues raised in responses

#### Regulatory responses

- 15.3. The EA stated it expects WRSE to demonstrate how the regional plan has considered updated EA guidance on licence capping to prevent deterioration. The EA recognised that this may impact planned abstractions and committed to work with WRSE to understand the implications, including how WRSE will manage and reduce uncertainty whilst any investigations into the risk of deterioration conclude.
- 15.4. Ofwat noted that the emerging plan is not sufficiently clear on costs, and should clarify the cost information and present it on an option basis. It also asked WRSE to describe more clearly why options are selected and when, including cost, benefit and lead in time data to justify the selected plan. It stated that when WRSE has developed a best value plan it should compare its cost against the least cost plan, and clearly identify the bill impacts of the proposed programmes and engage with customers on the issue. It also wants WRSE to compare its least cost adaptive plan with alternative plans with varying assumptions. The difference between the preferred least cost

adaptive plan and the best value adaptive plans, which are being developed, should then be used to support decision making around the preferred best value adaptive plan.

#### Questionnaires, organisational and individual responses

- 15.5. Historic England's response highlighted the importance of ensuring that the conservation and enhancement of the historic environment is taken into account fully in the regional planning process. It strongly recommended scoping the historic environment into the environmental assessments being undertaken for the draft regional plan.
- 15.6. The lack of detailed information on the emerging plan proposals, including the costs (financial and carbon) and benefits (in terms of deployable outputs), and detailed environmental assessment of individual options was criticised in a number of responses, including by GARD. The lack of this information was considered to make it difficult for those wishing to comment on the options selected in the plan to undertake any comparative assessment of whether the selected proposals were the most appropriate solutions. Specific gaps in information that were mentioned a number of times, including by supporters of GARD, included cost and environmental assessments of the strategies and options in the emerging plan.
- 15.7. Others wished to see more details published on the proposals that WRSE was proposing for water efficiency, leakage reduction and catchment management solutions. Further information is also sought on the carbon implications of the proposals in the emerging plan, and how carbon offsetting proposals could work.
- 15.8. In a similar way, a number of respondents with concerns about specific new water resource options, particularly reservoirs, water recycling and desalination options would have liked to see more specific detail of the environmental assessments of those options, and ways in which any temporary and permanent impacts could be mitigated.

- 15.9. Many respondents commented on the impacts of sewage discharge on their local environments. Although this is not within the remit of the regional plan, comments suggested that disquiet about sewage could affect customers willingness to support the planned significant water efficiency measures they may be encouraged to deliver, and support for new water resource options that could be planned for their local areas.
- 15.10. Clarification was sought by some respondents on the process by which the regional plan (which is non-statutory) and the individual WRMPs (which are statutory) are to be consulted on and then finalised. Some respondents also sought clarification of the best value planning process, and how the best value draft regional plan would be derived from the cost efficient emerging plan.
- ### How WRSE will respond to the issues raised
- 15.11. As indicated earlier in this document, the EA's licence capping proposals are the subject of ongoing discussions between WRSE, the water companies and the EA. This will also need to extend to discuss the potential implications for licences held by abstractors in other sectors. WRSE will seek to provide greater information on this issue for the draft regional plan, as there is the potential for this to have a significant effect on future water resources needs in the South East.
- 15.12. The comments requesting further information on the proposals in the plan, including cost and carbon and their potential environmental impacts will be addressed through the publication of more detailed information as part of the draft regional plan consultation in Autumn 2022. WRSE accepts that the emerging regional plan focused on identifying the key challenges facing the region's water resources, and the proposals in the emerging plan were presented at a relatively high level. The draft regional plan will publish more detailed information on the proposals and how they have been assessed. In response to Historic England's query it can be confirmed that the environmental assessments include consideration of the potential for impacts on cultural heritage.
- 15.13. Similarly, as explained earlier in the document, additional information on the specific options selected, including the basis for decision making will be included in the draft regional plan. This will include information on both the water resource and demand management options.
- 15.14. The concerns expressed in responses about sewage discharges mirror the concerns expressed publicly and in the media by many organisations and individuals across the South East region. Although outside of the remit of the regional plan, Thames Water and Southern Water are both committed to tackling this issue and have developed detailed proposals to bring forward improvements, and these are being consulted on through separate engagement on their Drainage and Wastewater Management Plans. These are links to [Thames Water](#) and [Southern Water's](#) emerging proposals.
- 15.15. In response to requests for further information on the process for regional and individual company WRMP plan preparation, there is further details on the [WRSE website](#).

## 16. Overview of next steps in the regional plan process

### Draft regional plan preparation

- 16.1. WRSE is currently working on the technical modelling and detailed assessments that will underpin the production of the draft regional plan, which will be published for consultation in Autumn 2022. This technical work will include additional stages of work to evolve the cost efficient plan (on which the emerging regional plan was based) into a best value draft regional plan.
- 16.2. The draft regional plan will build on and incorporate feedback received through the consultation on the emerging regional plan, as reported in this Consultation Response document. WRSE will continue to engage with stakeholders as part of the ongoing work, including working with its stakeholder advisory groups. The draft regional plan will also take on board any policy updates or regulatory guidance that has published since the development of the emerging plan.
- 16.3. We will work very closely with the individual companies within our region, and the other regions in preparing the draft regional plan, to ensure there is a consistent and comprehensive regional plan, which integrates with and informs the other regional plans and individual company's WRMPs.

### Draft regional plan consultation

- 16.4. The draft regional plan is anticipated to be published for consultation in Autumn 2022.
- 16.5. Separately, the planned consultation on the individual company WRMPs, which (subject to DEFRA approval) is anticipated to commence in November 2022. As noted previously, Southern Water's WRMP will be consulted on earlier in 2022.

### Revisions following consultation

- 16.6. Following the consultation on the draft regional plan, and on the individual company WRMPs, WRSE expects to undertake additional work on revisions to the draft regional plan in Spring 2023. This work would be undertaken in close co-operation with the other regions and the individual companies.
- 16.7. Any revisions to the draft regional plan would be to take account of consultation feedback on the draft regional plan, the consultation outcomes and updates from individual WRMPs that are relevant to the regional plan proposals, and the latest information and decisions from the investigations into the Strategic Resource Options (SROs). We would also reflect any new government and regulatory policies that are introduced between now and then.

### Finalisation of the regional plan

- 16.8. Our final regional plan, incorporating revisions following consultation, together with any changes necessary as a result of the finalisation of individual company WRMPs, is expected to be produced in late 2023. This timing will be dependent on the progress of the six individual WRMPs of the companies within the region, and WRMPs in other regions which might impact inter regional transfers.



## Appendix 1: Organisations who responded

Respondent
<p><u>Government:</u> Environment Agency; Natural England; OFWAT; DWI; Historic England</p>
<p><u>MPs:</u> James Gray MP</p>
<p><u>Regional/Local Government:</u> Mayor of London; Cherwell District Council; Oxfordshire County Council; East Hampshire District Council; Crawley Borough Council; South Oxfordshire and Vale of White Horse Council; Dacorum Borough Council; Waverley Borough Council; Kent County Council; Cotswold District Council; Havant Borough Council; Wealden District Council; Mid Sussex District Council; Swale Borough Council; PUSH - Partnership for Urban South Hampshire; Tonbridge &amp; Malling Borough Council; Canterbury City Council; Test Valley Borough Council; West Sussex County Council; South Downs National Park Authority; Horsham District Council; Hampshire County Council; East Sussex Fire and Rescue; together with individual elected Councillors</p>
<p><u>Parish/Town Councils:</u> East Hanney; Minstead; Charney Bassett; Horam; East Hendred; West Hendred; Rowlands Castle; Minstead – New Forest; Storrington &amp; Sullington; Letcombe Regis; Willingdon &amp; Jevington; Ardington and Lockinge; Burwash; Billingshurst; Heathfield and Waldron; Great Haseley; Woodmancote; Brightling; Yalding; Slaugham; Stroud Town Council; Wantage Town Council; together with individual elected Councillors</p>
<p><u>Regional groups:</u> Water Resources West</p>
<p><u>Business/Consumer organisations:</u> Consumer Council for Water (CCW); Waterwise; NFU; Country Land and Business Association; Thames Valley Chamber of Commerce; Home Builders Federation; Energy UK; British Marine</p>

CPRE Branches:  
Kent; Vale; Sussex; Oxfordshire; Hertfordshire

Wildlife Trusts:  
Sussex Wildlife Trust; Gloucestershire Wildlife Trust

AONB organisations:  
Cotswolds AONB

Canals, rivers and environmental organisations:  
Canal and River Trusts; The Inland Waterways Association South East Region; Rivers Trusts in the South East; Cotswold Canals Partnership; Cotswold Canals Trust; Proprietors of the Stroudwater Navigation; Wilts & Berks Canals Trust; Darent River Preservation Society; Upper Itchen Initiative; Stroudwater Navigation Archive Charity; The Revivel Association; Chalk Rivers Action Group, River Thames Liaison Group; Friends of the Ems; Cotswold Canal Connected Partnership; Stroud Valleys Canal Company; Salmon & Trout Conservation; Friends of the Westbrook and Stonebridge Pond; Ver Valley Society

Campaigning organisations:  
GARD; Wantage and Grove Campaign Group; Chiltern Society; Faversham Society; Havant Green Party; Oxfordshire South and Vale Green Party; Mayday Action Group; Hendreds Environment Group; Fairer World Linfield, Central Sussex Climate Network; Greening Westbourne; Willingdon Residents Association; Rowstock Residents Association; Planning Oxfordshire's Environment and Transport Sustainably (POETS)

Other organisations:  
MOSL; NHS – EPPR; Castle Water; Arqiva; RWE; Everflow Water; Clearwater Property; AA Compliance & Consulting Ltd; Thakeham Homes; Jonathan Fisher Environmental Economics; H Walker and Son; ADLU; Oak Leaf Forest School; St Helen and St Katharine School; Royal Agricultural university; The UK2070 Commission; UK Rainwater Management Organisation

Customers and residents:  
Individual residents in areas affected by schemes, and other members of the public