



Addendum to Statement of Response **Revised Draft Water Resources Management Plan** **2019 (rdWRMP19)**

Affinity Water Limited

6 December 2019

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1 Executive Summary

- 1.1 In October 2019, the Department for Environment, Food and Rural Affairs (Defra) requested further information to support our Statement of Response published on 7 June 2019 following public consultation on our revised draft Water Resources Management Plan (rdWRMP19) between March and April 2019.
- 1.2 This document is an addendum to support our rdWRMP19 Statement of Response and should be read in conjunction with the main Statement of Response document published 7 June 2019.
- 1.3 This document only contains updates in relation to the Defra request for further information to support and add further clarity to our rdWMP19 Statement of Response and Plan. There is no requirement to add to our statement of response outside of the further information requested. We propose that no substantive changes are required to our draft final Water Resources Management Plan 2019 (fWRMP19). However, we will include some additional text describing the alignment with Thames Water on the timing and size of the South East Strategic reservoir, as provided within this response document, along with the timeline for delivery of the scheme allowing for public inquiry, if deemed appropriate by Defra.
- 1.4 Section 3 summarises the information requested by Defra and a summary of the key updates.
- 1.5 Section 4 sets out our responses to each of the information requirements by Defra.
- 1.6 A summary of the key information requirements and references to our response in the document is shown in the table below:

Defra Information Requirements	Our Response reference
Information Requirement 1: Ensure the plan clearly sets out how the decision on strategic options will be made in time for 2022/2023 and your next WRMP can withstand scrutiny, such as through a public inquiry response	See section 4
Information Requirement 2: Ensure that the plan shows how Affinity Water will lead the way in protecting the environment particularly relating to chalk streams	See section 5
Information Requirement 3: Ensure the plan fully aligns with those of other companies involved with the strategic options and will contain the information to support the decision in 2022/2023	See section 6

2 Consultation Process Update

- 2.1 We ran a public consultation on our revised draft Water Resources Management Plan 2019 (rdWRMP19) between 1 March 2019 and 26 April 2019. We published a Statement of Response to the representations made on our rdWRMP19 on 7 June 2019. The Statement of Response set out what customers and stakeholders had told us and how we had taken their views into account in developing our draft final Water Resources Management Plan 2019 (fWRMP19), which was submitted to the Secretary of State on 7 June 2019.
- 2.2 In October 2019, the Department for Environment, Food and Rural Affairs (Defra) requested further information to support our Statement of Response published 7 June 2019.
- 2.3 Since publication of our Statement of Response, we have not received any substantive further consultation response as part of the statutory consultation process, so there is no requirement to add to our statement of response outside of the further information requested.
- 2.4 This document is an addendum to the rdWRMP19 Statement of Response published 7 June 2019 and only contains updates in relation to the further information requested by Defra.

3 Key updates to rdWRMP19 Statement of Response

3.1 Summary of Defra request

- 3.1.1 In October 2019 the Department for Environment, Food and Rural Affairs (Defra) have requested further information to support our Statement of Response published 7 June 2019.
- 3.1.2 The information requested by Defra included the following three areas:
- Information Requirement 1: Ensure the plan clearly sets out how the decision on strategic options will be made in time for 2022/2023 and your next WRMP can withstand scrutiny, such as through a public inquiry response
 - Information Requirement 2: Ensure that the plan shows how Affinity Water will lead the way in protecting the environment particularly relating to chalk streams
 - Information Requirement 3: Ensure the plan fully aligns with those of other companies involved with the strategic options and will contain the information to support the decision in 2022/2023

3.2 Key updates to Statement of Response

- 3.2.1 This document set out the information requested by Defra, which provides further clarity to our rdWMP19 Statement of Response and Plan. There is no specific requirement to update our draft final Water Resources Management Plan 2019 (fWRMP19), and we do not consider that any of the information that we have provided requires an update to our Plan. For the purposes of clarity, we consider that we should include the additional explanation on alignment with Thames Water around the size and timing of the South East Strategic Reservoir (SESR) that we have provided in Section 6.2 of this document. We will include this within Chapter 6 of our Plan, and make reference to this in the Executive Summary. It may also be advisable to include a timeline of development for our currently preferred option that shows how it can be delivered in a timely fashion, whilst allowing for a Public Inquiry at the WRMP24 stage.
- 3.2.2 The summary of the key updates and further information provided includes the following:
- further information and clarity on the timetable of decisions on the delivery of strategic options and ensured alignment with neighbouring water companies and the Ofwat “gated” process whilst allowing time for a public hearing or inquiry
 - commitment to a series of updates to stakeholders and customers on each of our four key themes in our monitoring plan and set out a timetable for this work to allow interested parties to know when the outputs of these projects will be available in alignment with neighbouring companies and Water Resources in the South East. This is outlined in Table 3: Planned Programme of Monitoring Plan Outputs Up to the 2023
 - commitment to undertake a thorough review of the technical methods used to forecast components of supply and demand at WRMP19 through regional collaboration with Water Resources in the South East (WRSE) group. This coordination at the WRSE level will ensure that forecasts are consistent and comparable, and will support a clear, robust and transparent decision-making process for the selection of strategic options
 - provided more information on our environmental ambition and to emphasise our Board’s commitment to lead the way in protecting the environment particularly relating to chalk streams, including by improving the understanding of Chalk streams so that we can provide a reliable, evidence driven basis for further actions to improve our Chalk environments

- included analysis of additional scenarios such as a scenario under higher growth for greater London in combination, with the additional sustainability change requirements.

3.2.3 Section 4, 5 and 6 sets out our responses to each of the information requirements.

4 Our response to Defra – Information Requirement 1

4.1 Our response to Information Requirement 1: Ensure the plan clearly sets out how the decision on strategic options will be made in time for 2022/2023 and your next WRMP can withstand scrutiny, such as through a public inquiry are summarised in Table 1

Table 1: Summary of our Responses to the First Section of the Information Requirement

Defra Information Requirement – ‘You should’ [additional relevant text shown in square brackets]	Summary of our Response
Commit to a formal series of updates (every 6 months) to government and regulators to ensure that you remain on track to make a decision in 2022/23 or as required	As part of our Monitoring Plan (see pages 119 to 122 of our WRMP main plan) plus our quarterly submissions to the Regulatory Alliance for Progressing Infrastructure Development (RAPID) we will be gathering data on the four key ‘themes’ identified in our WRMP. This includes: 1) progress and forecasting of demand management measures, 2) future reductions in abstraction, 3) the viability of strategic resource options and 4) the status of smaller, interim resource development measures. We therefore welcome the opportunity to present our Monitoring Plan updates to regulators and government, and commit to doing this formally on a 6-monthly basis. We suggest that the timing of these should be similar to the timing of our stakeholder assemblies, as described in Table 3.
Set out how a public hearing or inquiry would affect your timetable and delivery of strategic options and how you would manage this	We considered this risk as part of our adaptive planning assessment and confirm that a public hearing on WRMP24 would not cause any delay to our delivery of the preferred first strategic option by 2038 (see note under section 6.2 that clarifies alignment with Thames Water on this delivery date). We have set out details of the delivery of our current preferred option, the South East Strategic Reservoir, which shows how the timing of WRMP24, including regional plans and a public inquiry, in Section 4.2 below. As shown, we have allowed up to a year for referral and inquiry. By starting the DCO (Development Consent Order) Pre-application work prior to the WRMP24 inquiry, we can then allow up to 10 years for the post Development Consent Order delivery our preferred strategic scheme, which is slightly more than the detailed programme requires.
Set out a timetable for this work to allow interested parties to know when the outputs of these projects will be available. This should be aligned with work being undertaken by Thames Water and neighbouring companies.	The timetable of the work for our Monitoring Plan covers all four themes indicated above, and interacts with the Water Resources in the South East work on demand forecasting, options appraisal and economic modelling that will be used to deliver the South East Regional Plan. We provide details of the delivery and reporting process to March 2023 in Section 4.3 below.
Revise the technical methods, particularly related to demand	We commit to undertake a thorough review of the technical methods used to forecast components of supply and demand

<p>forecasts in time for the decision point in 2022/23.</p> <p><i>[The scopes should be shared with the regulators prior to commencement to allow them to comment]</i></p>	<p>at WRMP19. We will revise some of the technical methods we adopted, particularly in relation to demand forecasts, in time for the decision point in 2022/23, with a particular emphasis on ensuring regional coherence. We will do this through the Water Resources in the South East (WRSE) group, where, Affinity Water will collaborate with the other water companies involved in the formulation of the next regional plan to identify the best technical methods to forecasts supply and demand and select the ‘best value’ options. Specifically, this will include:</p> <ul style="list-style-type: none"> • Regionally developed, coherent, property and population forecasts. • A regional framework that all companies will work within to develop associated demand forecasts. Our demand forecast, in particular household demand forecast, will still be delivered in house following UKWIR best practice, but within the overall framework that is created by WRSE. • Supply capabilities of current systems and new resource options that are modelled conjunctively with the other water companies, including a regionally coherent view on climate change. • Consistent approaches to options evaluation and costing. • Regionally based economic and resilience modelling to identify the ‘best value’ plan for the region as a whole. <p>This coordination at the WRSE level will ensure that forecasts are consistent and comparable, and will support a clear, robust and transparent decision-making process for the selection of strategic options.</p> <p>We confirm that the scopes developed for the technical methods will be shared with the regulators prior to commencing the work to allow them to comment and provide feedback. Based on the WRSE programme of work, we expect these scopes of work to be available in March 2020.</p>
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4.2 Delivery Timeline for our Current Preferred Option, Accounting for Public Inquiry on WRMP24

- 4.2.1 Table 2 below sets out the milestone dates for the delivery process of the South East Strategic Reservoir (SESR). This incorporates the latest information from regulators on the timings of the WRMP24 process, plus the regional plans. Where appropriate we have also referred to the Ofwat ‘gated process’, through which our regulators will be scrutinising progress on the investigation and development of potential strategic supply options.
- 4.2.2 We note that the timing of the initial gates will not be finalised until the Final Determination in December 2019, and the timing of Gates 3 to 5 will depend on the findings of earlier gates, but the gated process is designed to support the investigation and (where appropriate) delivery of options, and will not act to delay the SESR delivery timeline.
- 4.2.3 Table 2 below is indicative only, but demonstrates that there is more than sufficient time to accommodate a public inquiry within the process, whilst still allowing for more than 10 years of development and construction once the subsequent DCO decision has been made.

Table 2: Programme of Development for the SESR Allowing for Public Inquiry

Date	WRMP24/WRSE Milestones	SESR Milestones
Feb-20	WRSE Statement of need (SON)	
Feb-21	WRSE SON – update	
Jun-21		Complete Ofwat ‘Gate 1’ investigation activities (including regional optioneering)
Aug-21	Initial Regional Plan	
Jan-22	Draft Regional Plan	
Apr-22	WRSE Regional Plan to inform company WRMP24	
Aug-22	Draft WRMP24 & Revised Regional Plan	
Sep-22	Development of draft WRMP24	Complete Ofwat ‘Gate 2’ investigation activities (including further development of the regional best value resilience plan)
Nov-22	dWRMP24 consultation finishes	
Mar-23	Statement of Response dWRMP24	
Apr to Jul-23	Revised draft WRMP24 submission	Commence Development Consent Order (DCO) pre-application activities (July)
Sep-23	Final Draft Regional Plan	Complete Ofwat ‘Gate 3’ activities (final design, decide procurement etc)
Oct-23	Decision, scope and set-up for inquiry	
Nov-23		
Dec-23		Notify the Planning Inspectorate (PINs) of DCO scheme
Jan-24		
Feb-24		
Mar-24		
Apr-24	Possible timing for public inquiry/examination into WRMP24	
May-24		
Jun-24		
Jul-24		
Aug-24		
Sep-24		
Oct-24	Contingency on public inquiry	
Nov-24		
Dec-24		
Mar-25	Secretary of State confirmation of WRMP24	Case of need proven through the WRMP24 public inquiry; statutory DCO consultation starts
April-26		Submit DCO application
Oct-27		DCO decision
Sep-28		Complete pre-construction activities (land purchase etc)
Oct-28		Start construction activities
2037		Complete construction and filling
2038		Scheme on-line prior to summer 2038

4.3 Programme of Monitoring Plan Work to 2023

- 4.3.1 Table 3 below sets out the key milestones that we will need to meet through our Monitoring Plan and WRSE collaboration in order to develop a suitable Regional Plan and draft WRMP, which we can consult on prior to the key 2023 decision point. We have separated the activities according to the four Monitoring Plan themes, as outlined in our WRMP. For the 'Strategic Regional Options' workstream we propose that the progress on these is provided to stakeholders using a joint process with Thames Water and Anglian Water. The timetable presented below reflects the Thames Water joint stakeholder fora for the Strategic Resource Options, which will cover all of the strategic options that Affinity and Thames are investigating, plus the latest outcomes for the Grand Union Canal transfer. These dates are only indicative at the moment, but meetings will be held approximately quarterly.
- 4.3.2 A similar process will be adopted with Anglian Water to review progress and implications of the South Lincolnshire reservoir. The other three themes will be reported separately from other water companies, but for 'Managing Growth and Demand' we shall align, where appropriate, with Thames Water's growth and demand monitoring workstreams.
- 4.3.3 For the Managing Growth and Demand and Reductions in Abstraction themes our primary method of sharing findings will be through our Stakeholder Assemblies, but we will share appropriate reports in advance with stakeholders through our website.

Table 3: Planned Programme of Monitoring Plan Outputs Up to the 2023 Decision Point

	Monitoring Plan Themes			
	Small Scheme Investigations	Reductions in Abstraction	Managing Growth and Demand	Strategic Option Investigations
Jan-20				
Feb-20				1st Stakeholder forum: Overview of National Framework report, WRSE Statement of Need, introduction to the gated process and technical methods
Mar-20				
Apr-20				
May-20				
Jun-20			1st assembly: growth and demand forecast scopes - included with Strategic Options forum (right)	2nd stakeholder forum: feedback and focus on technical methods ('best value' approach etc).
Jul-20				
Aug-20				
Sep-20	Initial review report on Brent reservoir			3rd forum: Updates and progress review, plus focus on policies and preferences
Oct-20				
Nov-20		Collate information gathered from the 'Revitalising Chalk Rivers' Initiative**		
Dec-20		Disseminate Chalk Rivers Initiative information to 2nd Assembly	2nd assembly: Initial baseline demand forecast, review of Water Saving Programme (WSP) benefits and plan for monitoring AMP7 achievements.	4th forum: Progress update plus conjunctive yield assessments.
Jan-21				
Feb-21				
Mar-21	Report on Sundon pilot trials and final review on Brent reservoir.	River Brett WINEP Investigations complete		5th forum: revised regional statement of need and presentation of regional resilience assessment
Apr-21				
May-21				
Jun-21			3rd assembly: WSP and AMP7 scheme updates, leakage cost and efficiency review and plan for quantifying post AMP7 options	
Jul-21				Gate 1 Reports and Gate 1 (5th) stakeholder meeting*
Aug-21				
Sep-21	Report on Lower Greensand testing and future capability			
Oct-21				6th forum: RAPID gate 1 recommendations and Gate 2 programme. Progress update on WRMP24
Nov-21				
Dec-21		Second collation of information generated through the 'Revitalising Chalk Rivers' Initiative		
Jan-22		Disseminate Chalk Rivers Initiative information to 4th Assembly	4th assembly: update on WSP and initial findings on AMP7 scheme benefits, draft Regional Plan position on future options	
Feb-22				7th forum: Draft WRSE regional plan results and implications for options
Mar-22		Central Region AMP7 WINEP Investigations complete		
Apr-22				
May-22				
Jun-22				
Jul-22				
Aug-22				
Sep-22	5th assembly: joint assembly to present dWRMP findings on AMP7 likely outturn and future options (supply and demand) benefits plus potential ranges of future reductions in abstractions and associated case of need			Gate 2 Reports and Gate 2 (8th) stakeholder meeting*
Oct-22				
Nov-22				
Dec-22				
Jan-23			6th assembly: present final findings on AMP7 outturn and future demand management benefits	

Notes:

**The list of outputs included in the Gate 1 and Gate 2 reports is in the process of being agreed with Ofwat and RAPID. The outputs essentially cover design and options reports, environmental assessment, planning and procurement routes, cases of need and investigation programme risks. We will share this information with stakeholders except where this is commercially sensitive (e.g. routes to procurement).*

*** The 'Revitalising Chalk Rivers' initiative supersedes the 'Chalk Rivers Partnership' referred to in the WRMP represents a joint approach between the EA, Affinity Water and river groups to investigate the wider, catchment level needs of Chalk streams in our region.*

5 Our response to Defra – Information Requirement 2

5.1 Our response to Information Requirement 2: Ensure that the plan shows how Affinity Water will lead the way in protecting the environment particularly relating to chalk streams are summarised in Table 4

Table 4: Summary of our Responses to the First Section of the Information Requirement

Defra Information Requirement – 'You should' [additional relevant text shown in square brackets]	Summary of our Response
show leadership and commit to ambitious voluntary changes to your licences to improve the environment as soon as possible and develop a plan to stop or reduce abstractions which impact chalk streams and other sensitive sites	<p>We will lead the lead the way in protecting the environment particularly relating to Chalk streams. This includes investigation and improvement of Chalk stream habitat within our supply region.</p> <p>Through this we will develop a sustainable plan to improve Chalk stream habitats where investigations demonstrate the need.</p>
continue to work with the Environment Agency to improve the environmental assessment for sites subject to sustainability reductions and use this information to inform your voluntary reductions to abstraction	<p>As indicated above, we confirm our commitment to investigation and assessment at all of the sites that have been identified through the WINEP programme, and will use the resulting assessments as the basis for our AMP7 sustainability reductions. We will also use this understanding to inform our Monitoring Plan and the associated evaluation of the potential for further reductions in abstraction to support our WRMP24 and spring 2023 decision point. on this work to improve the understanding of Chalk streams so that we can provide an evidence driven basis for further actions to improve our Chalk environments.</p>
show how you will maintain security of supply and protect the environment under higher growth scenarios for greater London in combination, with the additional sustainability change requirements	<p>We have analysed this scenario as requested, under both our 'expected' and 'optimistic' demand management futures. The results of this analysis are described in Section 5.2 below. Under this scenario we will need to accelerate supply side development and will need to over-size some transfer infrastructure to meet these needs, but are still able to achieve our preferred level of drought resilience without increase reliance on Drought Orders and Permits beyond the small amounts included within our existing GLA only scenario run (12Ml/d maximum between 2026 and 2032).</p>
include a scenario to show how you will meet the demand for HS2 and	<p>Our plan to meet the demands of HS2, including the temporary potential cessation of abstraction from the Blackford group sources, is set out in Section 5.3 below.</p>

ensure that this does not place additional pressure on the environment	This relies on temporary transfers from Thames Water, which we have discussed with them and are in the process of agreeing at a detailed level. As they are temporary in nature, we have not included them in our main WRMP document, but in Section 5.3 we provide further details of how the needs of the scheme are met.
confirm your ambition for leakage reduction and show how you will limit the use of abstraction from damaging groundwater sources	As part of the Draft Determination Ofwat has provided us with a framework for incentivising out-performance of the reduced leakage target, and we confirm that we will plan to out-perform that target as part of our AMP7 water resource management ambitions. We note that we have modelled the reduced Ofwat target and confirm that we can achieve balance under our 'challenging' future by the end of AMP7 without having to rely on Drought Orders and Permits. We also note that this reduction in the AMP7 target does not affect our longer-term leakage ambition, which remains to achieve a 50% reduction from our AMP5 (2015) target levels by 2045.
for the decision point in 2022/23, test a range of additional sustainability reductions to ensure that the demand management and strategic resource development options can remove or limit the reliance on environmentally damaging abstractions	We confirm that the implications and risks of higher levels of sustainability reductions will be reviewed through scenario risk assessments carried out by WRSE as part of the Regional Plan.

5.2 Analysis of the GLA plus Stretch Sustainability Reductions Scenario

- 5.2.1 As requested, we have analysed the scenario requiring additional sustainability reductions beyond AMP7, under the high growth scenario represented by the GLA draft plan growth forecast. We have carried out the analysis under our 'expected' demand management future, and our 'optimistic' demand management future.
- 5.2.2 Under our 'expected' demand management future we can deliver the profile of sustainability reductions indicated in Table 5 below, if we carry out the relevant strategic resource developments. Under this scenario we would only need to rely on Drought Orders and Permits to the same extent as the GLA only scenario contained in the WRMP19 Plan – i.e. we would only require a maximum of 12MI/d worth of Permits and Orders between 2026 and 2032, after which we could stop relying on them for a 1:200 year drought event.

Table 1: Plan for Scenario Involving GLA Draft Plan Growth with 40MI/d of Sustainability Reductions Beyond AMP7

Milestone	2028	2032	2038
Key strategic Resource Developments	Enhanced second stage Egham to Iver transfer (25MI/d)	Grand Union Canal (GUC) transfer (or effluent re-use/trading alternative)	SESR option (construct full 100MI/d treatment and transfer)
Sustainability Reductions Enabled	10MI/d (although up to 12MI/d Drought Orders and Permits required to meet resilience objectives)	5MI/d	25MI/d

- 5.2.3 In order to accommodate this level of growth and sustainability reductions, we would need to rely on a reverse transfer option with South East Water, where we temporarily stop supplying them 10MI/d of water from our Wey WRZ during the 2026 to 2032 period, whilst they are in surplus. We have discussed the possibility of this with SEW and they are able to accommodate this reversal, and have included the requirement in their WRP tables up until 2030. We would need to extend this until 2032, which is the earliest date that we could deliver the GUC transfer scheme (or effluent re-use alternative). We understand from SEW that they can accommodate this requirement if necessary, provided it does not extend beyond 2035. The capacity of our second stage Egham to Iver transfer scheme (delivered in early AMP8) would have to be increased by 10MI/d, to 25MI/d, in order to temporarily accommodate this additional water. Some of this investment would therefore become redundant for water resources purposes once the GUC transfer scheme comes on line in 2032. We would then need to deliver the next strategic option (SESR) as soon as possible (2038) in order to enable the remainder of the sustainability reductions.
- 5.2.4 If we are able to achieve our 'optimistic' future we would be able to cease reliance on Drought Orders and Permits by 2026, and bring forward around 10MI/d of sustainability reductions once the GUC transfer is constructed (i.e. 10MI/d in AMP8, 15MI/d in AMP9 and 15MI/d in AMP10).

5.3 Plans to Meet HS2 Demands and Risks

- 5.3.1 We have always kept the needs of HS2 separate to our WRMP because the needs are transient and do not form a part of our primary duty to supply customers. However, we have well defined plans that will deal with the need. These rely partly on the flexibility of our own sources and partly on transfer from Thames Water. A summary of the plan is as follows:
- 1) We are allowing for up to 20MI/d peak only for our own sources to account for the Tunnel Boring Machine (TBM) risk as it passes near the Blackford Group of sources. This is addressed through 10MI/d of peak flexibility within the group licence and 10MI/d peak only import from Perivale as an import of treated water from Thames.
 - 2) The construction demand of the scheme is currently up to 6MI/d, but is still being finalised. We are therefore in a process of discussing a potential import of up to 10MI/d at Cockfosters from Thames Water to provide this water at both peak and average conditions. This is a temporary supply that Thames Water are evaluating in detail (through the construction of a specific hydraulic model), in order to understand whether it has the capacity to supply the construction water.
 - 3) The supply at Cockfosters will require some capital works so may not be available for the early part of the construction period. The maximum demand that we will need to provide to HS2 during this period is up to 2MI/d. It is likely that we can accommodate this from surplus outside of the design drought condition, however to ensure security of supply to our customers it may be necessary to apply for a licence variation to increase the average licence allowance by 2MI/d during that period, and reduce it subsequently for the remainder of the construction period. This period is longer than a design drought event could feasibly last, so we will have flexibility to accommodate this reduction without affecting security of supply.
- 5.3.2 This plan allows us to supply the water required by HS2 without affecting the WRMP or risking environmental detriment.

6 Our response to Defra – Information Requirement 3

6.1 Our response to Information Requirement 3: Ensure the plan fully aligns with those of other companies involved with the strategic options and will contain the information to support the decision in 2022/2023 is summarised in Table 6

Table 2: Summary of our Responses to the Third Section of the Information Requirement

Defra Information Requirement – ‘You should’ [additional relevant text shown in square brackets]	Summary of our Response
align your plan with Thames Water and other companies that are planning to develop shared water resources. You should set out how you will work with other companies in Water Resources in the South East and Water Resources East groups to inform the optimum strategic options [<i>you should consider the impacts of [the Oxford-Cambridge Arc] development on your plan, particularly in relation to the need for further drought permits</i>]	<p>In terms of the timing and size of transfers within the WRMP19 Final Plan, we can confirm that these are fully aligned, and have addressed this under the next requirement, as described below.</p> <p>During the 2020 to 2023 period we have fully committed to working with Water Resources in the South East, with a programme of joint studies as set out in Section 4.3 above.</p>
ensure planned transfers including volume and timing from the South East Strategic Reservoir are fully aligned in both companies’ final plans and demonstrate how this affects the preferred options	<p>Our WRMP is fully aligned with Thames Water, and we have explained both the size and timing of the SESR option, along with any apparent differences in our final WRMP, within Chapter 6 of our WRMP and the Appendix 4.9. Technical Report. A summary explanation of the timing and size of the South East Strategic Reservoir in comparison with Thames’ plans, which is based on our WRMP and Appendix 4.9. Technical Report, is provided in Section 4.3.1 below, along with comments on other planned transfers.</p>
commit to increase its involvement in schemes that are led by other companies such as the Severn Thames transfer and the South Lincolnshire Reservoir in its final plan	<p>We increased our commitment as a result of the previous consultation and Statement of Response process, and have clarified this further as part of the ongoing commitment to the Strategic Regional Options investigations process that is being developed for the PR19 Final Determination. Details of our position are provided in Section 6.3 below.</p>
work with neighbouring companies to develop a consistent and comparable understanding of demand to inform the decision on strategic options in time for the decision in 2022/23	<p>We confirm our commitment to working with other water companies, as described under Section 4.1. Specific comments relating to demand forecasting and demand management are provided in Section 6.4 below.</p>

6.2 Summary of Alignment on the Timing and Size of the South East Strategic Reservoir and Other Transfers

- 6.2.1 Our WRMP contains the following text in relation to our assumptions and plan surrounding the SESR (page 109 of the main WRMP):

'we have identified the South East Strategic Reservoir (SESR) as our preferred option, which we propose to develop jointly with Thames Water. We propose to contribute sufficient investment to reserve 100MI/d out of the full 294MI/d yield of the scheme [and Thames Water has allowed for this in its Plan]. We will develop the reservoir itself by 2038 in our 'Challenging' Future. If we see our 'Expected' Future we will review whether to continue with development of the reservoir by 2038 or to develop it over a slightly longer time-scale to be ready for 2042. However, it may not be practical or cost-effective to delay development. We would carry out this review in consultation with Thames Water.'

'We propose to develop the transfer and treatment elements of the SESR scheme in two 50MI/d stages. In the first stage we will develop an abstraction on the River Thames and transfer the new supply to a new treatment works located near our existing Iver works (WRZ4). In the second stage we will extend the transfer through to Harefield and a second 50MI/d works in that location (WRZ1).'

- 6.2.2 As described, we have included two 50MI/d stages for the scheme within our WRMP tables, as those would represent the timing from which we could use the water for supply purposes (i.e. the 'deployable output' becomes available). However, we would plan to contribute to the development of the reservoir itself to reserve raw water availability of 100MI/d at the time of construction – i.e. by summer 2038. This is fully consistent with Thames Water's understanding.
- 6.2.3 In terms of the costs and magnitude of benefits, developing the SESR scheme in two phases represents 'best value' for our customers, as although this represents a slightly higher incremental cost than a single 100MI/d treatment and transfer development, the staged development is preferred in terms of economics and flexibility. As noted in our Technical Report 4.9. (page 62), we checked that the solution (100MI/d reservoir followed by two 50MI/d transfer and treatment developments) is economic, by constraining the model so that it could only chose either one 50MI/d option or the full 100MI/d option – in that case it selected the 100MI/d option as the preferred development. To ensure full consistency between the two plans, Thames Water also tested the reverse of this position, where our demand is introduced in two separate 50MI/d stages. The SESR was once again selected as the preferred option.
- 6.2.4 Based on the collaborative modelling between our two plans it is clear that the proposed approach, where the full 294MI/d capacity reservoir is developed in 2038, and we construct the treatment and transfer elements in two 50MI/d stages, represents a common 'best value' approach.
- 6.2.5 It should be noted that, in terms of WRMP tables, Thames' revised WRMP addendum submission includes SESR as a 194MI/d development for them – i.e. the 100MI/d that we use is only included in our WRMP and hence the overall scheme is appropriately included and fully aligned.
- 6.2.6 In relation to the timing of the scheme, the SESR option is selected in our Plan, with operational use required in 2038/39 (effectively summer 2038). The Thames Water Statement of Response and addendum to the rdWRMP is aligned, stating 'Affinity Water requires a supply from the reservoir in summer 2038, so the completion date in order to deliver the supply is 2037/38'. The difference between the 2037 in Thames' WRMP and the 2038 in our WRMP is simply due to the fact that we report the year during which a resource needs to be first used, and Thames reports on the year of construction completion. As shown in Section 4.1.1 above, the actual planned delivery date based on the need for a Public Inquiry on the WRMP24 submission, would be winter 2037/38 – i.e. within the 2037/38 financial year reported by Thames and before our identified water into supply need of summer 2038.

We have considered the impact that the growth from the Oxford-Cambridge Arc development can have on our plan. This development is peripheral to our supply region, is highly uncertain and the latest information is that the potential impact of 20 MI/d mentioned in our revised final WRMP19 represents an upper limit to the level of risk. We only consider that this will be necessary if the joint regional working for WRMP24 indicates that there is a realistic likelihood that the planned upper levels of growth could occur in both development areas simultaneously.

6.3 Commitment to Schemes such as the Severn Thames Transfer and South Lincolnshire Reservoir

- 6.3.1 Investigations into all of the strategic options described within our WRMP, with the exception of the Minworth pipeline transfer, are now being funded through the Strategic Regional Options (SRO) investigation process that Ofwat has described within its PR19 Draft Determinations. Within this funding programme and associated 'gated' governance process, the South Lincolnshire reservoir is a scheme that Affinity Water and Anglian Water will be investigating on an equal sharing basis, following the same timescales and deliverables as SESR and the GUC transfer. As a result, we do not view the investigative works around this strategic scheme as being 'led by other companies', and we are fully committed to progressing the understanding of this strategic option by working alongside Anglian Water throughout the gated process. Work is already underway to develop governance structures and arrange ways of working prior to funds being released for technical work at the start of AMP7.
- 6.3.2 Although the Ofwat gated process did not attribute funds to Affinity Water for the Severn Thames transfer strategic investigations, we have already requested to the scheme delivery group (Thames, Severn Trent and United Utilities) that we should be included as a key stakeholder to be fully engaged in the process. Through discussion with our partner companies we have combined two stakeholder groups; the Grand Union Canal scheme with the Severn Thames transfer group, owing to cross over with key stakeholders, involved companies and shared issues. At a technical level, these schemes will progress under their own individual governance structures, but as a result we have requested to remain involved in the Severn Thames transfer technical work as key stakeholder, and we will continue to participate at an active level at Water Resources West (WRW) where this scheme is discussed with the water companies in the west region, alongside stakeholders and regulators. We are committed to understanding the potential of this scheme as a source of traded water to supply our Thames to Affinity transfer scheme, and will seek to ensure that a realistic price for such a resource is available to us to consider as part of our WRMP24 submission.

6.4 Commitment to Develop a Consistent and Comparable Demand Forecast with other Water Companies

Demand forecasting

- 6.4.1 As noted previously, we will review our demand forecasting methods and assumptions as we work collaboratively with our regional working group (WRSE) to develop a joint and consistent baseline population and property forecast which will be aligned to neighbouring water companies in WRSE. We will then carry out our demand forecasting using best practice within the framework that will be developed by WRSE.

Demand management proposals and monitoring plan

- 6.4.2 We have aligned our adaptive plan and monitoring plan with the adaptive plan and monitoring plans described in Thames Water's Section 11 of their rdWRMP19. Affinity Water and Thames Water have put in place a monitoring framework of activities in the period to 2022/23 decision point to ensure the key decisions we make are on the basis of objective evidence and provide regulators and stakeholders transparency of our progress and findings.

- 6.4.3 Affinity Water and Thames Water have aligned our demand management monitoring plan to track key activities such as the ongoing metering programme, water efficiency initiatives, leakage as well as monitoring the impact of actual growth compared to forecasts. These activities are outlined in our plan in Section 6, Table 22: Our proposed AMP7 monitoring framework and equally in Thames Water's plan outlined in Section 11, Table 11-47: The adaptive plan monitoring programme. The delivery of outputs from our Monitoring Plan is described in Section 4.3 of this addendum.
- 6.4.4 In regard to long term demand management proposals and targets that are policy driven we recognise differences with other water companies. In particular we are aware that many have taken a policy decision to mandate a flat PCC post 2050, whereas our forecast was technically based as a result of applying best practice forecast methods. The main driver for this is the long-term forecast reduction in occupancy rates, which clearly drives a higher PCC within the current models. The influence of decreasing occupancy rates becomes apparent once demand management initiatives have stopped providing additional benefits (i.e. after 2045). However, we recognise that it may be desirable to assume that there is no subsequent rise in PCC in the long term, despite current evidence and trends. We commit to developing a consistent and comparable understanding of demand with other water companies in the WRSE region for WRMP24, and will work to ensure that the regional plan recognises and accounts for the risks associated with different long-term assumptions.

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