Revised draft Water Resources Management Plan 2019

Statement of Response

SOR Appendix 1: List of Respondents

September 3rd 2018

Appendix 1: Respondent List

Each representation received during the consultation process has been given a respondent number. The respondent list can be used to determine the comments submitted by particular individuals or organisations as set out in SOR Appendix 6.

Respondent no.	Name	Individual/Organisations	Online Questionnaire Response
1	Louise Lucas	Public	Yes
2	Kong Hua Yau	Homechef Café	Yes
3	Kerry	Public	Yes
4	Peter Savage	Public	Yes
5	David Ince	Public	Yes
6	Janet Weston	Public	Yes
7	Pam Ash	Public	Yes
8	Jenni Sinclair	Public	Yes
9	Andrew Corkish	Public	Yes
10	Holger	Public	Yes
11	Owen Hamilton	Public	Yes
12	Matthew Knight	Akro Valve	Yes
13	Tom Hopkins	Public	Yes
14	Marie-Anne Breakspear	Public	Yes
15	Frank Mendi	Public	Yes
16	Carole Sims	Public	Yes
17	Jonathan Hind	Public	Yes
18	Dawn Harding	Public	Yes
19	Lloyd Jones	Public	Yes
20	Paul Mocroft	Public	Yes
21	Elizabeth Pratt	Public	Yes
22	Anonymous 1	Public	Yes
23	Stephen Hazell	Public	Yes
24	Paul Fairall	Public	Yes
25	Lance Stroud	Public	Yes
26	Harry Oldham	Public	Yes
27	Robert Goacher	Public	Yes
28	Anonymous 2	Public	Yes

Respondent no.	Name	Individual/Organisations	Online Questionnaire Response
29	Debbie Andre	Public	Yes
30	Lauren Fowler	Public	Yes
31	Catherine Cannon	West Sussex County Council	No
32	Mike Whiting	Kent County Council	No
33	Benjamin Harris	Public	Yes
34	Clive Johnson	Public	Yes
35	William Cutting	Public	No
36	Mike Pocock	Affinity Water	No
37	Nathan Richardson	RSPB	No
38	Mike Harrison	Public	Yes
39	Darren Leftley	Canal & River Trust	No
40	Ian Moody	Adur & Worthing Councils	No
41	Tom Ormesher	National Farmers Union	No
42	Neville Smith	Portsmouth Water	No
43	Graham Horton	Natural England	No
44	Chris Murray	Hampshire County Council	No
45	Alan Byrne	Historic England	No
46	Karen Eastley on behalf of Councillor Adams-King	Test Valley Borough Council	No
47	Warren Jackson-Hookins/Adam Collier	Fareham Borough Council	Yes
48	Ali Morse	Hampshire & Isle of Wight Wildlife Trust	No
49	Lisa Winfield	Environment Agency	No
50	Chris Lowe	Individual	No
51	David Black	Ofwat	No
52	John Archer	Arun & Rother Rivers Trust	No
53	James C Mitchell	Public	Yes
54	Tim Sykes	Public	Yes
55	Clare Ramsaran	Public	Yes
56	Ange Ramsaran	Public	Yes
57	Anna Stonor	Swale Borough Council	Yes
58	Chloe Sadler/Jess Price	Kent Wildlife Trust/Sussex Wildlife Trust	No

Respondent no.	Name	Individual/Organisations	Online Questionnaire Response
59	Dr. A. Martijn Antheunisse	Wessex Chalk Streams & River Trust	No
60	Emma Allen	Dover District Council	No
61	Dani Jordan	WWF	No
62	Howard Taylor	Testwood and Nursling Fishery and Barker Mills Estate	No
63	Robert Scarrot	West Country Resources Group	No
64	Andrew Thompson on behalf of Ian Brown	Canterbury City Council	No
65	Dr Bella Davies	South East Rivers Trust	No
66	Aimee Shaw	Wessex Water	No
67	Sophie Tagg	New Forest District Council	No
68	Claire Upton-Brown	Partnership for Urban South Hampshire	No
69	Nick Measham	Salmon & Trout Conservation	No
70	Rob Scarrott	South West Water	No
71	Paul Walton	New Forest National Park Authority	No
72	Tracey Crouch MP	MP	No
73	Adams Infrastructure Planning Limited	Fawley Waterside Limited	No
74	Ian White	Public	Yes
75	Sally Lambert	Public	Yes
76	Lorraine Watters	Public	Yes
77	Grace Brennan	Public	Yes
78	Wendy Hodgson	Public	Yes
79	Harry Acton	Public	Yes
80	Christopher	Public	Yes
81	Stephen Richards	Public	Yes
82	L Tennant	Public	Yes
83	Louise Weeks	Public	Yes
84	Ian Campbell	Public	Yes
85	Stephen Crane	Public	Yes
86	Karen Dobson	Public	Yes
87	Anonymous 3	Public	Yes

Respondent no.	Name	Individual/Organisations	Online Questionnaire Response
88	Mimi Doulton	Public	Yes
89	Peter Harrison	Public	Yes
90	Danny Surridge	Public	Yes
91	Jan Elford	Public	Yes
92	Jan Wood	Public	Yes
93	Pauline Cutler	Public	Yes
94	Anonymous 4	Public	Yes
95	Mr Houghton	Public	Yes
96	Mrs J Turton	Public	Yes
97	Darren Rayner	Public	Yes
98	Andrew Porter	Public	Yes
99	Gillian Cotton	Public	Yes
100	Chris Ogrady	Public	Yes
101	Jill Poole	Public	Yes
102	Anonymous 5	Public	Yes
103	Roger Unsworth	Public	Yes
104	Muriel Miller	Public	Yes
105	James Hinves	Public	Yes
106	Benjamin Howard	Employee	Yes
107	Pauline Wallis	Public	Yes
108	Jan Chapman	Public	Yes
109	Norman Pasley	Public	Yes
110	A. Hay	Public	Yes
111	Clifford Hart	Public	Yes
112	Caroline Hoyes	Public	Yes
113	Hilary Cook	Public	Yes
114	John Edwin Porter	Public	Yes
115	Martin Miles	Public	Yes
116	Sally Child	HIWWT	Yes
117	Victoria Benjamin	Public	Yes
118	Peter Lipscomb	Public	Yes
119	Paul Holton	Public	Yes
120	Anonymous 6	Public	Yes
121	Sarah Lownds	Public	Yes

Respondent no.	Name	Individual/Organisations	Online Questionnaire Response
122	Simon Birnstingl	Public	Yes
123	Darren Simmons	Public	Yes
124	Michael Herriott	Public	Yes
125	Gloria	Employee	Yes
126	Kerry Gentleman	Public	Yes
127	Anonymous 7	Public	Yes
128	John St.Pierre	Ouse & Adur Rivers Trust	Yes
129	Stephen Bull	Isle of Wight Rowing Forum	No
130	Karl Roberts	Arun District Council	No

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Statement of Response

SOR Appendix 2: Draft WRMP online questionnaire

September 3rd 2018

Appendix 2: Online draft WRMP questionnaire

Water Resources Management Plan

By filling in this feedback form you will be entered into a free prize draw to win an iPad Pro.

Read our full terms and conditions.

1. Your details

Name

Name of business/group

Town

Email

2. Are you responding as a ...

- ◯ customer
- ◯ group, organisation or business
- ◯ employee

Provide more details here (if applicable)

3. Do you think we should plan for a wide range of possible 'futures' and how much water we may need to supply in each?

- ◯ Yes
- ◯ No
- ◯ Not sure

If you have any comments, give them here.

4. Do you think it's a good idea to plan for future changes to our abstraction licences which could mean we need to invest in new sources?

- ◯ Yes
- ◯ No
- ◯ Not sure

If you have any comments, give them here.

5. Do you agree with our plan to start investigating new options for water recycling, desalination and reservoirs now, in case they are needed in the future?

- ◯ Yes
- ◯ No
- ◯ Not sure

If you have any comments, give them here.

6. This plan includes the use of water restrictions (hosepipe bans) during a drought once in every 10 years on average. (In Hampshire and the Isle of Wight this is likely to be once every two or three years on average until at least 2027). Do you support this?

- ◯ Yes
- ◯ No
- ◯ Don't know

Other (please specify)

7. Do you think water recycling (from wastewater) has a role to play in securing water supplies for the future?

- ◯ Yes
- ◯ No
- ◯ Not sure

If you have any comments, give them here.

8. Do you think desalination has a role to play in securing water supplies for the future?

- ◯ Yes
- ◯ No
- ◯ Not sure

If you have any comments, give them here.

9. After we've introduced options to save water, such as reducing leaks and Target 100, which would you prefer us to develop first - water recycling or desalination?

- ◯ Water recycling
- ◯ Desalination
- ◯ Not sure

If you have any comments, give them here.

10. Do you support our Target 100 to reduce personal water use to 100 litres per day by 2040?

- ◯ Yes
- ◯ No
- ◯ Not sure

If you have any comments, give them here.

11. Should we do more to reduce leaks, even if it pushes your bills higher? (We plan to reduce leaks by 15% by 2025)

- ◯ Yes
- ◯ No
- ◯ Not sure

If you have any comments, give them here.

12. Do you think it's a good idea to trade water with neighbouring water companies in a 'regional grid' as part of the Water Resources in the South East group?

- ◯ Yes
- ◯ No
- ◯ Not sure

If you have any comments, give them here.

13. Do you support our Catchment First approach, to work with landowners, farmers and river trusts to improve the health of rivers and groundwater sources, before investing in new solutions such as water recycling or desalination?

- ◯ Yes
- ◯ No
- ◯ Not sure

If you have any comments, give them here.

14. Do you think our approach to provide water in Hampshire and the Isle of Wight is the right one?

- ◯ Yes
- ◯ No
- ◯ Not sure

If you have any comments, give them here.

15. Do you think our approach to provide water in Sussex is the right one?

- ◯ Yes
- ◯ No
- ◯ Not sure

If you have any comments, give them here.

16. Do you think our approach to provide water in Kent is the right one?

- ◯ Yes
- ◯ No
- ◯ Not sure

If you have any comments, give them here.

17. How important is it to you that we use renewable energy (by buying or developing it) to power our water network?

- ◯ Important
- ◯ Not important
- ◯ Not sure

If you have any comments, give them here.

18. Would you like to get involved in developing our solutions to provide water, for example, community schemes to save water, developing water recycling and desalination options or in any other way?

- ◯ Yes
- ◯ No
- ◯ Not sure

If you have any comments, give them here.

19. Did you find the information you needed in our consultation? What else would you like to know?

- ◯ Yes
- ◯ No
- ◯ Not sure

If you have any comments, give them here.

20. How did you hear about this consultation?

- ☐ Radio advertising
- ☐ Newspaper advert
- ☐ Southern Water website
- ☐ Email
- ☐ Community event
- ☐ Social media
- ☐ Other

If other, please specify.

Thank you for your time and your feedback.

Submit

Privacy & Cookie Policy

Revised draft Water Resources Management Plan 2019

Statement of Response

Appendix 3: List of individuals and organisations consulted

September 3rd 2018

Appendix 3: List of individuals and organisations consulted

Statutory

Environment Agency
Natural England
Ofwat
Historic England
Drinking Water Inspectorate
Southern Water Customer Advisory Panel

Local authorities (Chief Executives, Officers and Councillors)

Adur & Worthing Councils
Arun District Council
Ashford Borough Council
Basingstoke & Deane Borough Council
Association of Drainage Authorities
Brighton & Hove City Council
Canterbury City Council
Chichester District Council
Crawley Borough Council
Dover District Council
East Hampshire District Council
East Sussex County Council
Eastleigh Borough Council
Fareham Borough Council
Gravesham Borough Council
Hampshire County Council
Hastings Borough Council
Horsham District Council
Isle of Wight Council
Kent County Council
Lewes District Council
Maidstone Borough Council
Medway Council
Mid Sussex District Council
New Forest District Council
New Forest National Park Authority
Portsmouth City Council

Rother District Council
South Downs National Park Authority
Southampton City Council
Swale Borough Council
Test Valley Borough Council
Thanet District Council
Tonbridge & Malling Borough Council
Waverley Borough Council
West Sussex County Council
Wiltshire Council
Winchester City Council
Worthing Borough Council

Parish Councils

298 Parish and Town Councils

Fisheries and angling

Andover Angling Club
Avington Trout Fishery
Billingshurst Angling Society
Broadlands Lakes Coarse Fishery
Cadland Fishery
Chalk Springs Trout Fishery
Chalk Stream Fishing Ltd
Duncton Mill Trout Fishery
Fish Legal
Furnace Lakes Fishery
Golden Pond Fishery
Greenridge Farm Coarse Fisheries Ltd
Hastings Fly Fishers Club
Henfield & District Angling Society
Herne Bay Angling Association
Horsham & District Angling Association
Kent Fisheries Consultative Association
Kent Fishing Club
Kemsley Community Angling Preservation Society
Lower Itchen Fishery Ltd
Mill Farm Fishery
Mopley Farm Cadland Fishery
Newells Carp & Coarse Fishery
Orchard Lakes Fishery

Petersfield & District Angling Club
River Farm Fishery
Rother Angling Club
Holbury Lakes Trout Fishery
Salmon & Trout Association
Southampton Piscatorial Soc. & Test Valley Angling
Stones Fishery
Sumners Ponds Fishery & Campsite
Sussex Inshore Fisheries and Conservation Authority
Swanborough Fishery
Test Valley Angling Club/Soton Piscatorial Society
Testwood & Nursling Fishery
Thameside Works Angling & Preservation Society
Timsbury Fishing
Woodington Fishery
Worthing & District Piscatorial Society

Rivers trusts

Arun and Rother Rivers Trust
Ouse & Adur Rivers Trust
South East Rivers Trust
The Rivers Trust
Wessex Chalk Stream & Rivers Trust

Trade and consumer bodies

Bathroom Manufacturers Association
British Swimming Pool Federation
Car Wash Advisory Service
Chartered Institution of Water and Environmental Management (CIWEM)
Citizens Advice
Consumer Council for Water
Country Land & Business Association
Energy UK
Federation of Small Businesses
Food & Drink Federation
Footprint Trust
Friends of the Elderly
Hampshire Chamber of Commerce
Horsham Chamber of Commerce
Horticultural Trades Association
Institute of Water

Institution of Civil Engineers
Isle of Wight Chamber of Commerce
Natural Enterprise
National Farmers Union (NFU)
Royal Agricultural Society of England
Royal Horticultural Society
Royal Institution of Chartered Surveyors (RICS) South
Home Builders Federation
Surfers Against Sewage
Sussex Chamber of Commerce
UKWIR
Water UK

Environmental groups

Blueprint for Water
Carbon Disclosure Project
CPRE Hampshire
CPRE Kent
CPRE Sussex Countryside Trust
Energy Saving Trust
Friends of the Earth
Green Alliance
Hampshire & Isle of Wight Wildlife Trust
High Weald AONB
Kent Wildlife Trust
Kentish Stour Countryside Partnership
Marine Conservation Society
National Joint Utilities Group (NJUG)
National Trust
RSPB
Sussex Wildlife Trust
Test & Itchen Association
Upper Itchen Group
West Sussex Growers Association
Wildfowl and Wetlands Trust
Wildlife and Countryside Link
WWF-UK
WWT Arundel Wetland Centre

Government

MPs

Business, Innovation and Skills Committee
10 Downing Street
Defence Committee
Department for Culture, Media and Sport
Department for Education
Department for Work and Pensions
Department of Health
Education Committee, Education & Skills Sub-committee
Environmental Audit Committee
European Scrutiny Committee, Business Innovation and Skills Committee
Energy & Climate Change Committee
Foreign Affairs Committee
HM Treasury
Regulatory Reform Committee, Work and Pensions Committee
Home Affairs Committee
Home Office
Transport Committee
Treasury Select Committee
Women and Equalities Committee

Regional partnerships

Coast to Capital
Coastal West Sussex Partnership
Energise Sussex Coast
Gatwick Diamond Business
National Flood Forum
Partnership for Urban South Hampshire (PUSH)
Solent Energy & Environmental Management Group
Solent LEP
South Downs Land Management Group
South East England Councils (SEEC)
Southern Regional Flood and Coastal Committee
West Sussex Flood Action Group

Navigation

British Waterways South East
Chichester Ship Canal Trust
Cowes Harbour Commission
Inland Waterways Association
Peel Ports Medway
River Medway Navigation Authority/Environment Agency

Royal Yachting Association
Sandwich Port & Haven Commissioners
Shoreham Port
Southampton Canal Society
Thames & Medway Canal Association
The Basingstoke Canal Society
The River Wey Trust
Waterway Recovery Group
Wey & Arun Canal Trust

Other

Age UK
Albion in the Community
Business in Brighton
Coastal West Sussex NHS Trust
First Wessex Housing Association
Joss Bay Surf School
Locate in Kent
Salvation Army
Saxon Weald
South & South East in Bloom
Sussex Community Foundation
Vitacress Salads Ltd
Woodcoombe Sports & Social Club

Water companies

Portsmouth Water
Thames Water
Affinity Water
South East Water
SES Water
Wessex Water
South West Water

Revised draft Water Resources Management Plan 2019

Statement of Response

Appendix 4: Draft WRMP news release

September 3rd 2018

Appendix 4: News Release

Have your say in the future of water supply in the South East

13/03/2018 12:27:53

Have your say in the future of water supply in the South East

Southern Water is asking customers to have their say on our long-term plan to secure high quality drinking water for the South East over the next 50 years.

Our draft Water Resources Management Plan sets out how we will continue to safeguard supplies in the coming decades and cope with a range of scenarios, from population growth to climate change.

The plan is detailed in five-year chunks to ensure it can adapt to the changing needs of homes, businesses, communities and industry up until 2070.

In the shorter-term, our plans for 2020-2025 will see us reducing leaks, increasing the number of homes with meters to encourage water saving and working towards achieving Target 100, which will help us all reduce our personal water usage to 100 litres a day by 2040.

In the longer term, options across our region include:

- Building a desalination plant on the Solent, the tidal stretch of the River Arun or at Shoreham Harbour, to clean seawater for use as drinking water
- Receiving an extra 21 million litres of water each day from Portsmouth Water through a new pipeline, sourced from developing a new reservoir near Havant
- Recycling water from our wastewater treatment works at Aylesford, Ford and Peacehaven to increase water in the environment
- A new pipeline to extend the South East regional grid to make it easier to transport water around our water-stressed region
- Increasing the size of Bewl Reservoir

- Creating an underground reservoir to store water pumped from the Rivers Rother and Arun during the winter when flows are high to boost supplies in summer.

Southern Water's Water Strategy Manager, Meyrick Gough, said:

"Fresh, good quality water is vital for our daily lives and it's only right we should prepare effectively to ensure we safeguard this precious resource well into the future. Our plan is to secure resilience in our water supply, ensuring we're well prepared to deal with any eventuality – from extreme climate change at one end, to a future where we're all more water efficient at the other.

"Our customers play a huge part in helping shape the way we manage water supply, and we very much welcome their input as we continue to develop our future plans."

You can take part in our short online survey here.

Customers have until May 28 to have their say on the document and we'll donate £1 to WaterAid for every response we receive.

Revised draft Water Resources Management Plan 2019

Statement of Response

Appendix 5: Blog by Head of Wholesale Water

September 3rd 2018

Appendix 5: Blog by Helen Simonian Director of Wholesale Water Services

Working together to connect the dots

18/04/2018 13:21:37

I have the privilege of working in a sector which provides the most precious ingredient of life – water.

Fresh, healthy water is vital for all our daily lives and we need to work together with customers, stakeholders, businesses and our neighbouring water companies to ensure we're being as efficient as possible with our current water supplies and planning for a future where we might not have as much water to go round as there is now. Southern water supplies on average 530 million litres of water every day. By 2070 we could see the amount of water we need to supply rise to 750 million litres a day - nearly 50% more than now.

This is an estimate based on a rising number of people living in the South East and the impact of climate change so the time to plan for these big challenges is now. And we are working hard to rise to the challenge. For example, over the past two years we've visited more than 12 thousand homes, helping our customers be more water efficient and save money in the process by installing water saving devices and giving advice.

We've built a new pipeline which will deliver 15 million litres per day from Portsmouth Water in times of drought and our metering and water efficiency programmes have reduced consumption during by 16% to an average of 131 litres per person per day.

But it's not enough. The South East is categorised by the Government as being a region of water stress which means we have an average of 730mm of rain a year, so we have to be more efficient with our water. We're aiming to reduce our leakage by 15 % by 2025 and we're going to support our customers to reduce their daily consumption to 100 litres per person per day by 2040 through our Target 100 initiative. This will make a big difference to the amount of water available for all of us, for our children and generations to come.

To really get a handle on the challenges the future poses to our water supply we also need to consider the supply-demand balance of water of the whole region as if it was supplied by one company. This means not only working with our customers but working with other water companies to develop a regional view that offers best value to customers across the region. We're working together to develop a connected water grid which could in the future enable 1 billion litres of water to be moved around the region every day within and between companies. This would increase regional resilience and create a regional drought plan.

That's why I'm really pleased that all water companies in the South East are coming together for a first joint meeting to share plans for water resource management, ideas and learning.

We are all striving to provide the best possible service for our customers but by working together we can plan in a way which means we are being as efficient as possible with the water supplies our region has to offer now whilst also protecting the environment and providing value for money.

- Helen Simonian Director of Wholesale Water Services

You can have your say on Southern Water's Water resource management plan on the website https://beta.southernwater.co.uk/have-your-say

Revised draft Water Resources Management Plan 2019

Statement of Response

Appendix 6: Our detailed response to all questionnaire respondent comments

September 3rd 2018

Appendix 6 – Our response to comments made by those completing the online questionnaire

Set out below is our response to the comments made by those completing our online questionnaire. Where possible comments have been summarised and grouped together in themes and issues. The reference numbers correspond to the respondents listed in Appendix 1. We have provided our response and highlighted in bold where we are making changes or providing clarification in our revised draft WRMP.

Question 3: Do you think we should plan for a wide range of possible 'futures' and how much water may we need to supply in each?

Themes and issues raised in representations	Reference No.	Company consideration and response
Comments from respondents who think we should plan for a wide range of possible 'futures' and how much water may be needed to supply in each.		
Yes, the uncertainties about potential licence changes, planned growth and climate change, mean the company must be agile in order to secure the very best new sustainable sources, innovate, and avoid stranded investment.	25, 54	The support for our strategy is welcome.
In agreement and support SWS's plan for a wide range of possible 'futures'.	23, 33, 43, 54, 57, 90, 106, 115	Support to plan for a wide range of possible 'futures' noted and welcomed.
Fareham Borough Council supports this approach due to the complex issues in planning for a readily available water supply. Southern Water should therefore appropriately plan for a wide range of possible 'futures'. The long-term approach of the Water Management Plan to 2070 is particularly welcomed to this effect.	47	Support for our long-term plan is welcomed.
In support of water re-cycling.	117	Support for water recycling noted and welcomed.
Timely, decisive/robust and transparent action is fundamentally important in the new WRMP. The timing and clarity of actions by others including the Environment Agency	54	We will continue to work closely with the Environment Agency and Natural England in order to deliver the commitments within our WRMP.

Themes and issues raised in representations	Reference No.	Company consideration and response
& Natural England is crucial to enable SWS to make its own decisions with certainty.		
SWS's draft WRMP does not clearly set out the critical path leading up to the 2025 WRMP. That creates a sense that SWS are committed to an end point, as agreed in the Public Inquiry. SWS's approach to plan for a wide range of possible 'futures' needs to be narrowed down further to a smaller number of realistic futures. The timeline needs to be clearly set out in the WRMP otherwise there is just a large number of possible futures and no defined route and little certainty what the goal is or when it will be achieved.	54, 84	We have included additional information in the WRMP as a response to the outcomes of the Hampshire Licences Inquiry and the s20 agreement. This includes expanded information on the Long Term Water Resources Scheme (our preferred strategy for the Western Area) that we are committed to delivering to the timescales that we have agreed. We have included information on the risks and uncertainties we face, and described the way we will investigate, assess and promote both our preferred schemes and alternatives to them to minimise and mitigate potential risks to delivery. We will be working closely with our partner organisations and other stakeholders and will regularly report on progress as part of stakeholder working groups, and more publicly via our annual returns to the Secretary of State. Southern Water will also be reporting on progress with schemes in the Western Area publicly through updates on its website. The real option approach is used to understand how our plan would be best varied in light of possible future scenarios, which result in our future forecasts. Despite uncertainties, we present in our plan a preferred set of options, and as a result, a number of schemes may be required to be investigated and promoted in the short term before the uncertainties are better understood. We wish to ensure that the draft WRMP is flexible enough in the short term against a wide range of possible futures. The real option method allows us to learn about uncertainty over time, build in flexibility so that we can act on new information and ensure that any schemes needed in the relative short term are implemented and do not become rapidly redundant, that is a 'no regrets' solution.
Decisions will be need to be made in the years leading up to the next WRMP to enable SWS to construct the very best engineering solutions before 2030. Timely, decisive/robust and transparent action is therefore fundamentally important in the new WRMP. i.e. the Environment Agency and Natural England must make important decisions of their own in order to enable SWS to make its own crunch decisions with certainty before 2025. What SWS's draft WRMP does not do	54	We have included additional information in the WRMP as a response to the outcomes of the Hampshire Licences Inquiry and the s20 agreement. This includes expanded information on the Long Term Water Resources Scheme (our preferred strategy for the Western Area) that we are committed to delivering to the timescales that we have agreed. We have included information on the risks and uncertainties we face, and described the way we will investigate, assess and promote both our preferred schemes and alternatives to them to minimise and

Themes and issues raised in representations	Reference No.	Company consideration and response
very clearly is set out that critical path leading up to the 2025 WRMP. That creates a sense that SWS are committed to an end point, as agreed in the Public Inquiry, but the draft WRMP does not map out a transparent, measurable, precise means to get to that point: the range of possible futures needs to be narrowed-down considerably in the next few years to a smaller number of realistic futures to enable one to see where SWS are going with this. That timeline needs to be crystal-clear and set out in the WRMP, otherwise one just sees a large number of possible futures and no defined route.		mitigate potential risks to delivery. We will be working closely with our partner organisations and other stakeholders and will regularly report on progress as part of stakeholder working groups, and more publicly via our annual returns to the Secretary of State. Southern Water will also be reporting on progress with schemes in the Western Area publicly through updates on its website.
Consistent approach across water companies is required.	57	We will continue to actively work with neighbouring water companies through the Water Resources South East group to further enhance the benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable and facilitating cumulative environmental assessment (for example in respect of cumulative landscape effects). Our plan demonstrates the benefits of the WRSE group with several water trading and/or joint water resource scheme developments included in our strategies for each of our operating areas.
Need to plan for minimum adverse impact on the environment in drought and normal water supply conditions.	53	The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing resilience drought events, including environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP. There is a short term reliance on Drought Permits and Orders while the permanent solutions are developed and implemented, but in the longer term (2030s onwards) our customers and the environment in which we operate will benefit from our planned resilience investment, which includes continued measures to reduce demand for water as well as physical environmental enhancement measures.
Concern about the expense of using Desalination.	24	We have presented what we consider to be a balanced plan. It contains both supply side and demand side options (building on Southern Water's already very high metering levels, for example).

Themes and issues raised in representations	Reference No.	Company consideration and response
		However, the company faces some very significant deficits that cannot be met by demand management options alone - they require development of large scale supply side schemes. The modelling we undertake to identify our preferred strategies is based on identifying the least cost solution. We do however take into account other criteria to ensure our proposals represent the optimum balance of financial, environmental and social costs. We also take into account risks, uncertainties and social costs. The potential impact on bill payers is therefore an important consideration. We accept that some of the new technology that we will need to use in the future, such as desalination, can be expensive to build and operate. It may be the case that we will only need to operate such plants in dry or a very dry year, and so we are designing them to be used at a much lower capacity for most of the time. In this way we can keep ongoing operational costs to a minimum.
Concerned about the level of abstraction carried out. I have great concerns that not enough planning is going into provision of water that is not going to deplete rivers below levels that sustain a diverse eco system.	24	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP.
The potential for increasing abstraction during flood conditions is ignored and it is not accepted that this would be too expensive.	24	We have considered options for additional abstraction during high flow conditions where this is technically feasible and environmentally acceptable. This includes options in our Central supply area to utilise high winter flows in the River Rother to reduce abstraction from existing groundwater sources and to store water underground in an Aquifer Storage and Recovery (ASR) scheme.
Need to consider the use of the canal system to move water from North Wales, or a big pipeline, that can fill some major new storage reservoirs.	24	The feasibility of this type of grid was considered by the House of Lords Select Committee (2006), which found "a national water grid is not currently feasible because it would require huge amounts of energy and would cost too much". Due to the great uncertainties involved, the concerns regarding the practicality and reliability of the scheme, and the potential for significant environmental impacts, this option was excluded from AMP 4 Phase 1 and AMP5 unconstrained options. Exclusion

Themes and issues raised in representations	Reference No.	Company consideration and response
		remains valid.
Concerns about using abstraction and the adverse impacts upon the condition of rivers and their eco-systems, especially when coupled with an increasing demand.	24, 85	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions into account in our draft WRMP and also considered the impact of any abstractions into account in developing the preferred strategies. This is reflected in the HRA, SEA and WFD assessments that support our WRMP.
Several respondents agree with the approach and think it is important due to the increase in water demand associated with housing and development. New reservoirs are needed to support housing growth.	2, 18, 24, 25, 89	We supply water to an area that is officially identified as an area of significant population and economic growth. Our forecasts indicate that population within our supply area is expected to grow to over 3 million people by 2045; representing a 22% increase. We need to manage the increased demand for water and work with government, local authorities and developers to make new homes more water efficient.
Monitoring of water leaks and upgrading of the water distribution network should be carried out in the short term and the water company penalised if these targets are not met.	2	Managing leakage is an important part of our water resources strategy. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. Levels of service set out the standard of service that customers can expect from their water companies. These levels of service are developed by companies asking customers what their priorities are and whether they are willing to pay for a change in service. Ofwat will challenge how companies have agreed their levels of service with customers and their investment plans for delivering these levels. We are required to publish information about our performance each year, including how we have met our outcomes (performance commitments). For delivering or exceeding the service levels customers expect, we can be either rewarded or penalised. We set performance commitments around leakage levels and therefore can be penalised if we do not meet our commitments.

Themes and issues raised in representations	Reference No.	Company consideration and response
Provided not at the expense of the rivers and wildlife and plans must fully evaluate the environmental impacts.	74, 83, 96, 103, 105, 117	The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP.
In favour of desalination or other innovations rather than river and borehole extraction	105	The strategy presented in our dWRMP comprises a mix of options that are considered to provide a secure supply of water, protect the environment and represent best value for customers. The optioneering process takes into account a range of financial, environmental and social considerations in determining both the range of options but also when these options are needed. Support for desalination or other innovations is noted.
Several respondents stated that water saving should be prioritised and plans must encourage and educate customers to use water more wisely.	74, 109, 112, 126	Our plan contains both supply side and demand side options (building on Southern Water's already very high metering levels, for example). Since the publication of the draft WRMP we have significantly increased our proposals to reduce leakage and reviewed and updated our metering and water efficiency measures. We have set ourselves the target of reducing water use to 100 litres per day by 2040 - a reduction of 25%. Our Target 100 initiative is considered to be ambitious in comparison to other water company targets, and has been welcomed by the Environment Agency and others in their responses to the WRMP. This initiative includes measures to educate and assist customers in using water more wisely.
Concerned about water supply from chalk wells and the risk of pollution to these ‘wells’ from potential leaching of numerous chalk quarry pits which have been filled with unverified waste in the past. Ecology has been ignored and predict that this issue will soon be exposed and SW need to be very open about the local water table quality to their customers and have a plan in place to continue the supply without using the "drought plan" as an excuse.	25	We have a water quality monitoring programme to identify contaminants and any trends in deteriorating water quality and where necessary will implement treatment solutions to ensure drinking water quality standards are met. We also undertake catchment risk assessments to identify and mitigate risks to water quality.
You don't appear to have looked at the possible water needs for the unconventional hydrocarbon plans in places such as	122	To date no companies have applied to Southern Water for water supplies or for access to our wastewater treatment facilities to dispose

Themes and issues raised in representations	Reference No.	Company consideration and response
Balcombe and Broadford Bridge. There is ongoing exploration and the government supports this source of energy. We are told it may need millions of litres of water annually. I would like to see your assessment.		of the process water associated with unconventional hydrocarbon extraction. Water companies are not statutory consultees on planning applications but we have been working closely with the Environment Agency to ensure that if this activity is permitted, it is carried out in accordance with all regulatory requirements and guidelines.
I understand that approximately 33% of the years turnover was surplus over cost and I would suggest that a significantly greater proportion be re-invested in service provision. I would also like to see the utilities returned to public ownership. In the meantime bonuses and dividends should be curbed.	124	Comments are noted but this is not an issue for the WRMP
Comments from respondents who do not think we should plan for a wide range of possible 'futures' and how much water may be needed to supply in each.		
Using existing evidence of related issues such as global warming should be sufficient to identify two or three models at most to plan for.	29	As set out in Annex 6, a Real Options approach has been used to inform the decision making for the draft WRMP strategy. This approach solves the supply demand deficits simultaneously for seven different 'states of the world' across up to five different 'futures' or 'branches'. • 'States of the world': which represent a snapshot of different climatic conditions and intra-annual pressures on water resources and demands, from normal year through to severe and extreme droughts, looking at periods when water supplies are at their minimum, and at periods of peak demand for water during summer months. • Different possible 'futures' modelled by different 'branches': these represent a plausible set of future supply demand balances for which different solutions may be most appropriate. The use of different futures in the Real Options approach effectively recognises that the future is not certain, and so the method tries to identify how solutions may change through time in the face of different possible future water resource pressures. The approach therefore tries to ensure that the plan is resilient against a range of uncertain, yet possible, futures that the company may face.
The twin goals should be more reservoir capacity and water re-use.	82	The strategy presented in our dWRMP comprises a mix of options that are considered to provide a secure supply of water, protect the environment and represent best value for customers. The optioneering process takes into account a range of financial, environmental and social considerations in determining both the range of options but also when these options are needed. This includes water re-use schemes.

Themes and issues raised in representations	Reference No.	Company consideration and response
		The longer term forecasts for the draft WRMP identified that we may need to create a reservoir in the Lower Test Valley through the conversion of an existing lake but this would not be needed until after 2045, with other options being preferable in cost and environmental terms in supplying water. We have revised this modelling for the revised Draft WRMP, and with the increased commitment to leakage reduction and other demand management measures, the proposed reservoir is not now identified as being required during the Plan period. However, we recognise that water storage within south Hampshire may have a role to play in protecting supplies to customers during different potential drought events, and that storage could increase the overall resilience of our water resources in this area. As a result, we are committing to investigating all potential storage options within south Hampshire during the initial part of AMP7 (the 2020-2025) period), to enable feasible options to be potentially incorporated within our next WRMP.
Comments from respondents who are not sure whether we should plan for a wide range of possible 'futures' and how much water may be needed to supply in each.		
The term "plan" should be better defined. Is this limited to research, or does this include the building of Desalination plants?	5	Our WRMP sets out how we propose to ensure that there is a secure and reliable supply of water for our customers over a 50 year planning period. We identify a number of improvements and new developments in the WRMP to ensure water supplies are available. Plans are published every five years and we seek to deliver those interventions that are set out in the WRMP over the next five years.
Depends on the motive for the plan. Wildlife and environment is important and should not be compromised.	93	The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing resilience drought events, including environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP.
We should restrict water use rather than continuing to build more storage facilities.	111	We have presented what we consider to be a balanced plan. It contains both supply side and demand side options (building on Southern Water's already very high metering levels, for example). However, the company faces some very significant deficits that cannot be met by demand management options alone - they require

Themes and issues raised in representations	Reference No.	Company consideration and response
		development of large scale supply side schemes.

Question 4: Do you think it's a good idea to plan for future changes to our abstraction licences which could mean we need to invest in new sources?

Themes and issues raised in representations	Reference No.	Company consideration and response
Comments from those who think it's a good idea to plan for future changes to abstraction licences which could mean investment in new sources		
Fareham Borough Council support the approach of Southern Water to responsibly plan for future changes to abstraction licenses in order to ensure residents have sufficient water supply.	47	Support to plan for future changes to our abstraction licences noted and welcomed.

Swale Borough Council stated that the draft WRMP does not appear to accept that abstraction is currently at unsustainable levels. The issue of over-abstraction is of importance to Swale Borough as a large proportion of their biodiversity designations are critically dependent on an adequate supply of good quality water and are currently suffering the impacts of over-abstraction. An integrated catchment management approach which improves the health of rivers and watercourses is endorsed, and this should include reduced abstraction. The advice of the EA should be followed here. It would be useful to understand how SWS compare to industry best practice on this subject.	57	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP. Southern Water is keen to work with Natural England and our catchment partners to identify the wider potential co-benefits of our catchment management schemes which have a primary focus on improving drinking water quality and/or enhancing environmental resilience of water bodies from which we abstract. As part of our commitment to achieving overall net environmental gain from implementation of our WRMP, we will actively work with Natural England and our catchment partners to maximise benefits for biodiversity and society as a whole from our catchment management investment, adopting ecosystem services and Natural Capital assessment approaches in line with the Government's 25 year plan for the environment and Southern Water's wider Integrated Water Cycle Management approach. Southern Water has adopted an industry leading approach to assessing unsustainable abstraction risks and has an ambitious programme of investigations in the next AMP period to understand sustainable levels of abstraction so that these can be confirmed as soon as possible and built into our future plans.

The WRMP should be flexible and it is good to have a continency plan.	54, 84, 90	The real option approach is used to understand how our plan would be best varied in light of possible future scenarios, which result in our future forecasts. Despite uncertainties, we present in our plan a preferred set of options, and as a result, a number of schemes may be required to be investigated and promoted in the short term before the uncertainties are better understood. We wish to ensure that the draft WRMP is flexible enough in the short term against a wide range of possible futures. The real option method allows us to learn about uncertainty over time, build in flexibility so that we can act on new information and ensure that any schemes needed in the relative short term are implemented and do not become rapidly redundant, that is a 'no regrets' solution.
It would be negligent not to do so since SWS operate in a highly water-stressed area.	33	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP.

SWS should be seeking to minimise abstraction rates, particularly in drought situations, and hands-off flow solutions and invest in solutions such as partnering with Portsmouth Water to obtain supplies or desalination.	53	Following the Inquiry concerning sustainability reductions on the River Test, River Itchen and at Candover, a Section 20 Operating Agreement is now in place between the Environment Agency and Southern Water. The outcome of the Inquiry means that some sustainability reductions will be brought in with immediate effect once approved by the Secretary of State. This means that we will have insufficient supplies of water available in our Western area to supply our customers in all but normal environmental conditions, until alternative long term secure supplies are provided. As soon as conditions become drier than normal, we will in the short term, have to impose temporary use bans and apply for Drought Orders to allow us to continue to abstract water below the conditions imposed in the new licences. Where Drought Orders are applied for, we will implement river restoration and habitat mitigation measures in potentially affected rivers in combination with Drought Orders. Our supplies to customers will remain at risk during the AMP7 period and into AMP8 until sufficient supplies are delivered. The extent of the deficit is such that we need to deliver large new resources and these will take time to deliver. We will seek to deliver these in a timely manner and in consultation with key stakeholders.
Abstraction is currently at unsustainable levels.	115	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP.

The new sources need to be environmentally sound, and ecological risks and benefits must be taken into account. One respondent stated that a full evaluation of environmental impacts needs to be undertaken. Another respondent stated that solutions other than further abstraction should be explored.	14, 29, 74, 78, 83, 108, 116	The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP. Our WRMP is supported by SEA, HRA and WFD assessments. The strategy presented in our dWRMP comprises a mix of options that are considered to provide a secure supply of water, protect the environment and represent best value for customers. These are not based solely on abstraction, including desalination, water re-use and demand measure options.
One respondent queried what steps SWS are taking to manage the process of making decisions about licence changes because there are many investigations and variables to be accounted for. There isn't enough detail in the draft WRMP about the timeline and programme of work to ensure it is deliverable.	54	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP. A number of investigations are ongoing and the magnitude and timing of the next round of sustainability reductions is not likely to be known until 2023. Sustainability reduction scenarios (lower, middle and upper) have therefore been developed for each Water Resource Zone to test what the impact of differing levels of reductions might be. Our calculations of our future supply-demand balance are presented as a series of probabilistic distributions, representing a range of possible futures that we then feed into our decision-making process.

Many of the possible abstraction licence changes identified by the Environment Agency and Natural England are partially foreseeable, so it need not wait until 2023/4. SWS should consider how some environmental protection standards can be applied across a portfolio of abstraction licences, not just those on the River Test and Itchen.	54	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP. A number of investigations are ongoing and the magnitude and timing of the next round of sustainability reductions is not likely to be known until 2023. Sustainability reduction scenarios (lower, middle and upper) have therefore been developed for each Water Resource Zone to test what the impact of differing levels of reductions might be. Our calculations of our future supply-demand balance are presented as a series of probabilistic distributions, representing a range of possible futures that we then feed into our decision-making process.

One respondent criticised the process of making licence changes because it results in delays and uncertainty, and suggested the following: • SWS should work with its regulators and stakeholders to debate challenges relating to licence changes, adopt a more holistic approach to environmental protection and agree meaningful licence changes before they are imposed. • SWS should write a more proactive WRMP when it comes to identifying and accepting protective licence changes.	54	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP. A number of investigations are ongoing and the magnitude and timing of the next round of sustainability reductions is not likely to be known until 2023. Sustainability reduction scenarios (lower, middle and upper) have therefore been developed for each Water Resource Zone to test what the impact of differing levels of reductions might be. Our calculations of our future supply-demand balance are presented as a series of probabilistic distributions, representing a range of possible futures that we then feed into our decision-making process. Southern Water is also keen to work with Natural England and our catchment partners to identify the wider potential co-benefits of our catchment management schemes which have a primary focus on improving drinking water quality and/or enhancing environmental resilience of water bodies from which we abstract. As part of our commitment to achieving overall net environmental gain from implementation of our WRMP, we will actively work with Natural England and our catchment partners to maximise benefits for biodiversity and society as a whole from our catchment management investment, adopting ecosystem services and Natural Capital assessment approaches in line with the Government's 25 year plan for the environment and Southern Water's wider Integrated Water Cycle Management approach.

Technology for producing drinking water in drought conditions needs to be more highly developed / researched.	8	We accept that we need to embrace new and better ways of doing things. We will continue to look at innovative ways to improve, protect, and secure reliable sources of water.
Additional water sources are required to cope with the growing population.	78	This is reflected in our draft WRMP. Population growth is a key challenge for us and we identify a number of improvements and new developments in the WRMP that we proposed in response to this and other challenges we face.
The respondent queried why SWS have not build more reservoirs.	79	The water planning process requires us to provide a secure supply of water and consider a range of supply side and demand management options that protect the environment and represent best value for customers. The optioneering process takes into account a range of financial, environmental and social considerations in determining both the range of options but also when these options are needed. This process has not identified the need for reservoirs beyond those already developed. The longer term forecasts for the draft WRMP identified that we may need to create a reservoir in the Lower Test Valley through the conversion of an existing lake but this would not be needed until after 2045, with other options being preferable in cost and environmental terms in supplying water. We have revised this modelling for the revised Draft WRMP, and with the increased commitment to leakage reduction and other demand management measures, the proposed reservoir is not now identified as being required during the Plan period. However, we recognise that water storage within south Hampshire may have a role to play in protecting supplies to customers during different potential drought events, and that storage could increase the overall resilience of our water resources in this area. As a result, we are committing to investigating all potential storage options within south Hampshire during the initial part of AMP7 (the 2020-2025) period), to enable feasible options to be potentially incorporated within our next WRMP.
The Government is not best qualified to issue abstraction permits.	82	This process is managed by the Environment Agency. We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme.

We need to investigate how to use water more efficiently and think about ways we don't currently use as standard.	126	We have set ourselves the target of reducing water use to 100 litres per day by 2040 - a reduction of 25%. Some of our metered households achieve this level of water use already. To achieve this across the board, we will need Building Regulations and Local Plan policy support, and we look to work closely with the Council and other partners in innovating and leading the way in ensuring that we can achieve this target. Our Target 100 initiative is considered to be ambitious in comparison to other water company targets, and has been welcomed by the Environment Agency and others in their responses to the WRMP. The Target 100 extends across all homes, not just new home, and our initial plans have four key strands: 1. Installation of smart metering technology: We are currently undertaking trials of devices that can read meters and send the reading to the customers using their Wifi. If the trial proves successful, we plan to roll out 100,000 devices over AMP7. 2. Home visits: We currently undertake water efficiency home visits, which has a high uptake rate and can result in up to 10% further savings on top of that achieved through metering. We will continue with this programme and combine it with leak detection. 3. Proactive customer contact: We are looking to develop tools and systems to identify any significant increase in consumption. We can then proactively engage with customers at an early stage to determine if the increase is due to change in circumstances or may be a leak. This will allow us to specifically target customers or geographical areas for water efficiency messages during periods of high demand. 4. Incentivising water efficiency behaviour: Our research has shown little appetite for seasonal tariffs and so as an alternative, we are looking to reward customers for conserving water. The first scheme will be rolled out in Hampshire in partnership with Eastleigh Borough Council. The scheme will offer rewards to residents for recycling waste and reducing water consumption on a monthly basis. The scheme will be introduced in the Central area towards the end of AMP7 and in the Eastern area during AMP8.

Themes and issues raised in representations	Reference No.	Company consideration and response
Comments from those who don't think it's a good idea to plan for future changes to abstraction licences which could mean investment in new sources		
The question is worded to encourage support for more abstraction.	24	The question is worded to establish whether we should be planning for future changes to our abstraction licences as this could mean we need to invest in new sources. We consider a mix of options within our WRMP including desalination, water re-use and catchment management initiatives, as well as increased leakage reduction and demand management measures.
'New sources' must mean importing water or desalination.	24	We consider a mix of options within our WRMP including desalination, water re-use and catchment management initiatives, as well as increased leakage reduction and demand management measures.

No more water should be abstracted from rivers because it is ruining them. One respondent stated that water extraction is not the answer.	24, 111, 112	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP. Southern Water is also keen to work with Natural England and our catchment partners to identify the wider potential co-benefits of our catchment management schemes which have a primary focus on improving drinking water quality and/or enhancing environmental resilience of water bodies from which we abstract. As part of our commitment to achieving overall net environmental gain from implementation of our WRMP, we will actively work with Natural England and our catchment partners to maximise benefits for biodiversity and society as a whole from our catchment management investment, adopting ecosystem services and Natural Capital assessment approaches in line with the Government's 25 year plan for the environment and Southern Water's wider Integrated Water Cycle Management approach. We consider a mix of options within our WRMP including desalination, water re-use, as well as increased leakage reduction and demand management measures.
It will damage wildlife and fisheries.	117	The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP.

Use less water from existing sources.	109	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP. We consider a mix of options within our WRMP including desalination, water re-use and catchment management initiatives, as well as increased leakage reduction and demand management measures.

SWS need to increase storage and / or secure water from the North West, which has an excess of water.	24	The longer term forecasts for the draft WRMP identified that we may need to create a reservoir in the Lower Test Valley through the conversion of an existing lake but this would not be needed until after 2045, with other options being preferable in cost and environmental terms in supplying water. We have revised this modelling for the revised Draft WRMP, and with the increased commitment to leakage reduction and other demand management measures, the proposed reservoir is not now identified as being required during the Plan period. However, we recognise that water storage within south Hampshire may have a role to play in protecting supplies to customers during different potential drought events, and that storage could increase the overall resilience of our water resources in this area. As a result, we are committing to investigating all potential storage options within south Hampshire during the initial part of AMP7 (the 2020-2025) period), to enable feasible options to be potentially incorporated within our next WRMP. The feasibility of a national grid and transfer of water across the country was considered by the House of Lords Select Committee (2006), which found "a national water grid is not currently feasible because it would require huge amounts of energy and would cost too much". Due to the great uncertainties involved, the concerns regarding the practicality and reliability of the scheme, and the potential for significant environmental impacts, this option was excluded from AMP 4 Phase 1 and AMP5 unconstrained options. Exclusion remains valid.

The respondent was concerned about new residential developments, and raised the following issues: • water companies base their 25-year plans on local authority housing forecasts when developments can be approved by Central Government • SWS only assess proposed developments at the time of planning and have a commitment to supply water to all approved developments, which results in funds to be negotiated with the developer for network extensions and an increase on drought predictions for consumers • Water companies penalise customers in areas with housing developments, with an obvious lack of guaranteed home water supply and long term basic water infrastructure investment.	25	Our WRMP forecasts population and housing growth over a 50 year period. We forecast growth primarily based on housing projections by Local Authorities in our supply area. We also look at demographic trends and use micro-component analysis (assessing expected water use within the home) to forecast domestic demand. This feeds into our supply-demand balance, which determines how much water we need to supply in the future. Our WRMP then sets out how we will supply that water and meet future demand. We recognise that we need to have effective, integrated water infrastructure that is fit for purpose to meet the needs of a growing populations. We need to work with government, local authorities and developers to ensure we know when development is coming forward and also ensure that new homes are water efficient. New developments should not lead to an increase in drought measures for consumers since these are built into our demand forecast and hence we plan to ensure there is sufficient supply to maintain our agreed levels of service with customers. Furthermore our approach to developing this WRMP ensures we have an adaptive plan to cover the uncertainty associated with the scale of new development.
No major issues have yet been encountered.	2	We supply water in a part of the country that has been classified as water stressed by the Environment Agency, and also an area where the sustainability of future water abstraction is being continually re-assessed. We already know that we will be facing further limitations on how much water is available from our sources, and this will increase the gap between the supply and demand in parts of our supply area. Our existing asset base will need to be transformed to cope with these challenges. The difficulty we face is planning for these changes, as the timing and extent of these could vary considerably, both over time and between WRZs. These challenges are set out within our WRMP.
Comments from those who are not sure whether it's a good idea to plan for future changes to abstraction licences which could mean investment in new sources		

Damage to the environment, including watercourses and ecology, needs to be minimised. One respondent stated that abstraction licences on rivers such as the Test and Itchen should be reduced. Another respondent stated that no more water should be abstracted from chalk streams.	6, 80, 86, 118	The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP. Following the Inquiry concerning sustainability reductions on the River Test, River Itchen and at Candover, a Section 20 Operating Agreement is now in place between the Environment Agency and Southern Water. The outcome of the Inquiry means that some sustainability reductions will be brought in with immediate effect once approved by the Secretary of State. We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP.
The term 'plan' should be better defined. The respondent queried if it is limited to research, or if it includes the building of desalination plants.	5	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.

Not if it involves major development of land.	93	We have presented what we consider to be a balanced plan. It contains both supply side and demand side options (building on Southern Water's already very high metering levels, for example). However, the company faces some very significant deficits that cannot be met by demand management options alone - they require development of large scale supply side schemes. This invariably requires some built development although the environmental impact of any building is considered within the option appraisal process and is taken into account in the HRA, SEA and WFD assessments that support our WRMP.
Less water should be taken from watercourses.	114	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP.

Question 5: Do you agree with our plan to start investigating new options for water recycling, desalination and reservoirs now, in case they are needed in the future?

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who think it's a good idea to start investigating new options for water recycling, desalination and reservoirs now, in case they are needed in the future		

Many comments were generally in support of the plan to start investigating new options for water recycling, desalination and reservoirs. Some respondents stated that this should have already been considered, and that SWS should look to invest in and trial the most effective solutions as soon as possible.	13, 23, 24, 54, 90, 103, 106, 115	Support to start investigating new options for water recycling, desalination and reservoirs now noted and welcomed. Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, we face some significant deficits that require us to look towards a mix of options. Our modelling undertaken on the draft WRMP indicates that under all potential futures we need to investigate in AMP 7, and then build in AMP8 a large desalination plant or other high tech solution (e.g. water re-use). Our re-modelling for the revised draft WRMP confirms that a high tech solution will be required, in addition to increased metering, improved sharing of water both with neighbouring companies and within our own supply areas, and other solutions. Our plans now include detailed investigations of solutions, to ensure they can be consented and delivered rapidly to meet the challenges proposed by licence changes, in particular, within Hampshire. We have identified in our revised draft WRMP both our preferred solution, but also alternatives that will be progressed should our preferred plan not be deliverable. We will investigate and promote our preferred and alternative schemes in parallel.
This approach is supported by Fareham Borough Council. However, we would welcome clarification as soon as possible in relation to preparing our new Local Plan on whether such water related infrastructure would be required in the Borough over the period of the Water Resources Management Plan. It's understood that at this stage no recycling, desalination or reservoirs are proposed within the Borough.	47	Support to start investigating new options for water recycling, desalination and reservoirs now noted and welcomed. Our preferred strategy for our Western supply area over the 50 year planning period does not include any large supply schemes in the Borough but we would obviously inform the council if anything changes in future.

Several comments showed preference for water recycling and / or reservoirs over desalination. Some respondents stated that this is because of the high cost of desalination and its impact on the environment. One respondent queried where SWS would plan to put reservoirs in the South-East. Another respondent queried if desalination is more expensive than reservoirs.	2, 33, 79, 87, 89, 109	We have presented what we consider to be a balanced plan. It contains both supply side and demand side options (building on Southern Water's already very high metering levels, for example). However, the company faces some very significant deficits that cannot be met by demand management options alone - they require development of large scale supply side schemes. The modelling we undertake to identify our preferred strategies is based on identifying the least cost solution. We do however take into account other criteria to ensure our proposals represent the optimum balance of financial, environmental and social costs. We also take into account risks, uncertainties and social costs. The potential impact on bill payers is therefore an important consideration. We accept that some of the new technology that we will need to use in the future, such as desalination, can be expensive to build and operate. It may be the case that we will only need to operate such plants in dry or a very dry year, and so we are designing them to be used at a much lower capacity for most of the time. In this way we can keep ongoing operational costs to a minimum. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.
SWS need to be clear with local planning authorities that further major developments cannot be approved until the capacity headroom is improved.	18	Our WRMP forecasts population and housing growth over a 50 year period. We forecast growth primarily based on housing projections by Local Authorities in our supply area. We also look at demographic trends and use micro-component analysis (assessing expected water use within the home) to forecast domestic demand. This feeds into our supply-demand balance, which determines how much water we need to supply in the future. Our WRMP then sets out how we will supply that water and meet future demand. We recognise that we need to have effective, integrated water infrastructure that is fit for purpose to meet the needs of a growing population. We need to work with government, local authorities and developers to ensure we know when development is coming forward and also ensure that new homes are water efficient. We also need support in bringing forward and implementing new water supply schemes to ensure that we can meet future need.

Several comments focused on water efficiency measures, including the following: • more research on integrating water reuse and water leakage and control • need to use water resources more efficiently and effectively utilising innovate technology • SWS must maximise its efforts to lower demand and increase water efficiency • SWS should at least meet its Sustainable Economic Level of leakage • high levels of leaks are unacceptable if we are going to waste water	2, 4, 11, 29, 54	We have set ourselves the target of reducing water use to 100 litres per day by 2040 - a reduction of 25% by 2040. Some of our metered households achieve this level of water use already. To achieve this across the board, we will need Building Regulations and Local Plan policy support, and we look to work closely with the Council and other partners in innovating and leading the way in ensuring that we can achieve this target. In terms of efficiency and innovation, we need to embrace new and better ways of doing things. We accept that we need to embrace new technologies where they deliver solutions that are cost effective and benefit the environment. Our revised draft WRMP shows how we already have ambitious plans to make best of available resources before developing new supply schemes. However we will continue to investigate opportunities to reduce the demand for water and reuse the water which is used as much as possible. Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, it is not necessarily economic to reduce leakage to very low levels, because to do so could involve large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve, and we are very aware of the potential impacts on customer bills. We are exploring this with our financial regulator Ofwat, and are committed to ensuring that vulnerable groups and customers are protected.

Opportunities to implement customer rewards and penalties, and behavioural programmes. One respondent suggested incentives for households to collect rainwater, with financial help for those who want to make adaptations to allow the use of rainwater for toilets and washing machines, or the reuse of grey water.	54, 83	Penalty-only incentives are generally not supported by customers in the research we have undertaken. Our research has shown little appetite for seasonal tariffs and so as an alternative, we are looking to reward customers for conserving water. The first scheme will be rolled out in Hampshire in partnership with Eastleigh Borough Council. The scheme will offer rewards to residents for recycling waste and reducing water consumption on a monthly basis. The scheme will be introduced in the Central area towards the end of AMP7 and in the Eastern area during AMP8.
Desalination is the most obvious and long-term sustainable option for the Isle of Wight because it is surrounded by sea water. One respondent queried if a desalination plant on the Isle of Wight would not help to supply most of the Island's water.	6, 20	In the Western area our longer term forecasts identify that in the 2045-2070 period we would likely need further schemes to maintain the supply demand balance. This includes a potential desalination plant on the Isle of Wight. Our preferred strategy is to develop a desalination plant in Hampshire but we will continue to review alternative options during the promotion of the plan.
Priority must be given to improving existing sources including water from regions with abundant water.	4	Southern Water will continue to actively work with neighbouring water companies through the Water Resources South East group to further enhance the benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable and facilitating cumulative environmental assessment (for example in respect of cumulative landscape effects). We have also worked with the West Country Water Resources Group to develop a scheme to import water from Bournemouth Water. In terms of sharing water from regions further away we have selected schemes that were identified in a recent national study.

Several comments focused on environmental impacts, including the following: • Sensitivities regarding marine ecosystems need to be respected in regard to desalination • one respondent queried what is SWS's assessment of the possible risks to marine ecosystems from desalination • reservoirs are a sensible idea but need to be managed in a sustainable way with regard to wildlife and supply of water • water should be recycled as long as it does not cause pollution it must reduce risks to local chalk streams and aquifers.	6, 54, 83, 122	Detailed SEA, Habitat Regulations Assessment (HRA) and WFD assessments have been undertaken for all feasible options to fully understand the overall potential effects of all our options. Where applicable, we have identified mitigation measures to prevent or reduce any identified significant adverse environmental or social effects of an option. We took these mitigation measures into account in assessing the potential residual effects on the environment and/or supply. Southern Water has included in its revised draft WRMP its commitment to a number of design principles for its supply enhancement options as set out in Annex 6 of the revised draft WRMP (and in the SEA, HRA and WFD Reports) that will inform the detailed design of schemes which includes seeking an overall net biodiversity gain in developing each scheme as far as possible, working in close dialogue with Natural England, Environment Agency and other stakeholders.
It must contribute to business resilience in the long term.	54	Water re-use, desalination and reservoirs are expensive to build but they can provide a reliable source of water for customers and will assist us in delivering further resilience within our supply network.
Comments from those who do not think it's a good idea to start investigating new options for water recycling, desalination and reservoirs now, in case they are needed in the future		
SWS should have done this before Labour committed to the Thames Gateway proposals.	25	Our WRMP forecasts population and housing growth over a 50 year period. We forecast growth primarily based on housing projections by Local Authorities in our supply area. We also look at demographic trends and use micro-component analysis (assessing expected water use within the home) to forecast domestic demand. This feeds into our supply-demand balance, which determines how much water we need to supply in the future. Our WRMP then sets out how we will supply that water and meet future demand. We are therefore able to plan for and accommodate growth proposals.
Comments from those who are not sure whether it's a good idea to start investigating new options for water recycling, desalination and reservoirs now, in case they are needed in the future		

It depends if it leads to the destruction of the environment and habitats.	86, 101	Detailed SEA, Habitat Regulations Assessment (HRA) and WFD assessments have been undertaken for all feasible options to fully understand the overall potential effects of all our options. Where applicable, we have identified mitigation measures to prevent or reduce any identified significant adverse environmental or social effects of an option. We took these mitigation measures into account in assessing the potential residual effects on the environment and/or supply. Southern Water has included in its revised draft WRMP its commitment to a number of design principles for its supply enhancement options as set out in Annex 6 of the revised draft WRMP (and in the SEA, HRA and WFD Reports) that will inform the detailed design of schemes which includes seeking an overall net biodiversity gain in developing each scheme as far as possible, working in close dialogue with Natural England, Environment Agency and other stakeholders.
Respondent thinks that desalination is too expensive and supports water reuse and reduction.	100	We have presented what we consider to be a balanced plan. It contains both supply side and demand side options (building on Southern Water's already very high metering levels, for example). However, the company faces some very significant deficits that cannot be met by demand management options alone - they require development of large scale supply side schemes. The modelling we undertake to identify our preferred strategies is based on identifying the least cost solution. We do however take into account other criteria to ensure our proposals represent the optimum balance of financial, environmental and social costs. We also take into account risks, uncertainties and social costs. The potential impact on bill payers is therefore an important consideration. We accept that some of the new technology that we will need to use in the future, such as desalination, can be expensive to build and operate. It may be the case that we will only need to operate such plants in dry or a very dry year, and so we are designing them to be used at a much lower capacity for most of the time. In this way we can keep ongoing operational costs to a minimum.

Question 6: This plan includes the use of water restrictions (hosepipe bans) during a drought once in every 10 years on average. (In Hampshire and the Isle of Wight this is likely to be once every two or three years on average until at least 2027). Do you support this?

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who support that the plan includes the use of water restrictions (hosepipe bans) during a drought once in every 10 years on average.		
Several comments support were generally in support of the plan including the use of water restrictions during a drought once in every 10 years on average. One respondent stated only if it is proved to be vital.	90, 109, 115	Support that the plan includes the use of water restrictions during a drought once in every 10 years on average noted and welcomed. We plan to develop a water supply network which is more resilient to drought and less vulnerable to changing weather. This means we can reduce the frequency of how often we are likely to have to take action to reduce droughts.

Fareham Borough Council welcome the robust approach taken to ensure future water supply with the aim of reducing drought risk. Shorter-term water restrictions up to 2027 resulting in hosepipe bans every two or three years including in Fareham Borough should however be considered against an overall priority to provide for sustainable water supplies to the benefit of customers that would have minimal impacts upon the wider environment over this period. This also includes the need to undertake improvements to pipe infrastructure to reduce leaks and minimise water loss, so that the need for hosepipe bans is kept as low as possible.	47	Support for our approach to future water supply noted and welcomed. Our draft Drought Plan, published for consultation in 2018, introduces a new way of planning for droughts, which means we will need to act to tackle them less often. We plan to introduce Temporary Use Bans no more than once every 10 years on average, restrictions under drought orders no more than once every 20 years, and apply for drought orders and permits to take more water from the environment no more than once every 20 years (on average). These may need to be more frequent in Hampshire and the Isle of Wight until at least 2027, as we develop new water sources following changes to our licences to abstract water. Our drought plan sets out what we will do to keep supplying water during a drought. It shows: • the range and timing of actions we could take to keep providing tap water while droughts develop and worsen; and • the steps we'll take to protect the environment. The plan includes the triggers and actions we will take should there be an impending drought to reduce the amount of water being used. Our draft WRMP set out a combined strategy of reduced leakage and reduced water consumption. Further active leakage control in the short term will be followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050.

Leaks need to be reduced and more / better storage of water is needed.	6, 89	The water planning process requires us to provide a secure supply of water and consider a range of supply side and demand management options that protect the environment and represent best value for customers. The optioneering process takes into account a range of financial, environmental and social considerations in determining both the range of options but also when these options are needed. This process has not identified the need for reservoirs beyond those already developed. The longer term forecasts for the draft WRMP identified that we may need to create a reservoir in the Lower Test Valley through the conversion of an existing lake but this would not be needed until after 2045, with other options being preferable in cost and environmental terms in supplying water. We have revised this modelling for the revised Draft WRMP, and with the increased commitment to leakage reduction and other demand management measures, the proposed reservoir is not now identified as being required during the Plan period. However, we recognise that water storage within south Hampshire may have a role to play in protecting supplies to customers during different potential drought events, and that storage could increase the overall resilience of our water resources in this area. As a result, we are committing to investigating all potential storage options within south Hampshire during the initial part of AMP7 (the 2020-2025) period), to enable feasible options to be potentially incorporated within our next WRMP.
Seems unnecessary given the amount of rainfall in the north of the country, particularly Scotland.	92	The feasibility of a 'national' type of grid was considered by the House of Lords Select Committee (2006), which found "a national water grid is not currently feasible because it would require huge amounts of energy and would cost too much". Due to the great uncertainties involved, the concerns regarding the practicality and reliability of the scheme, and the potential for significant environmental impacts, this option was excluded from AMP 4 Phase 1 and AMP5 unconstrained options. Exclusion remains valid.

Hosepipe bans should be permanent, expect for one hour in the evenings, unless used as part of a legitimate business.	91	Our draft Drought Plan, published for consultation in 2018, introduces a new way of planning for droughts, which means we will need to act to tackle them less often. We plan to introduce Temporary Use Bans no more than once every 10 years on average, restrictions under drought orders no more than once every 20 years, and apply for drought orders and permits to take more water from the environment no more than once every 20 years (on average). These may need to be more frequent in Hampshire and the Isle of Wight until at least 2027, as we develop new water sources following changes to our licences to abstract water. The draft Drought Plan includes triggers and actions should we experience a drought that may include hosepipe bans. It is not considered that outside of drought conditions that restrictions are required although we will continue to work with customers to educate them about using water wisely.
Restrictions should be placed on farmers and horticulturalists etc. to prevent spraying of crops with water during daylight to reduce evaporation.	7	Our draft Drought Plan, published for consultation in 2018, introduces a new way of planning for droughts, which means we will need to act to tackle them less often. We plan to introduce Temporary Use Bans no more than once every 10 years on average, restrictions under drought orders no more than once every 20 years, and apply for drought orders and permits to take more water from the environment no more than once every 20 years (on average). These may need to be more frequent in Hampshire and the Isle of Wight until at least 2027, as we develop new water sources following changes to our licences to abstract water. The draft Drought Plan includes triggers and actions should we experience a drought that may include restrictions on farmers and horticulturalists. It is not considered that outside of drought conditions that restrictions are required.

Several comments focused on educating people, including the following: • gardeners and people with allotments should be better educated on how to reduce water usage. Rain water storage systems, better companion planting, and underground hose systems have a role to play • more emphasis on stopping people wasting water by washing vehicles and watering gardens • only if maximum effort is made to educate customers about the benefits of saving and recycling water.	5, 13, 74	Our Target 100 initiative is considered to be ambitious in comparison to other water company targets, and has been welcomed by the Environment Agency and others in their responses to the WRMP. The Target 100 extends across all homes, not just new home, and our initial plans have four key strands: 1. Installation of smart metering technology: We are currently undertaking trials of devices that can read meters and send the reading to the customers using their Wifi. If the trial proves successful, we plan to roll out 100,000 devices over AMP7. 2. Home visits: We currently undertake water efficiency home visits, which has a high uptake rate and can result in up to 10% further savings on top of that achieved through metering. We will continue with this programme and combine it with leak detection. 3. Proactive customer contact: We are looking to develop tools and systems to identify any significant increase in consumption. We can then proactively engage with customers at an early stage to determine if the increase is due to change in circumstances or may be a leak. This will allow us to specifically target customers or geographical areas for water efficiency messages during periods of high demand. 4. Incentivising water efficiency behaviour: Our research has shown little appetite for seasonal tariffs and so as an alternative, we are looking to reward customers for conserving water. The first scheme will be rolled out in Hampshire in partnership with Eastleigh Borough Council. The scheme will offer rewards to residents for recycling waste and reducing water consumption on a monthly basis. The scheme will be introduced in the Central area towards the end of AMP7 and in the Eastern area during AMP8. To achieve Target 100 we will also need to continue our work with developers and local planning authorities to actively promote water efficiency. We also agree that changes to Building Regulations will greatly assist in achieving Target 100. It is agreed that there is potential with new homes to deliver lower pcc in new homes and have a number of initiatives seeking to achieve this.

An increasing population was raised as a challenge.	24	We supply water to an area that is officially identified as an area of significant population and economic growth. Our forecasts indicate that population within our supply area is expected to grow to over 3 million people by 2045; representing a 22% increase. We need to manage the increased demand for water and work with government, local authorities and developers to make new homes more water efficient.
Comments from those who do not support that the plan includes the use of water restrictions (hosepipe bans) during a drought once in every 10 years on average.		
The UK has plenty of water through rain and water companies must work together to share this.	4	The feasibility of a 'national' type of grid was considered by the House of Lords Select Committee (2006), which found "a national water grid is not currently feasible because it would require huge amounts of energy and would cost too much". Due to the great uncertainties involved, the concerns regarding the practicality and reliability of the scheme, and the potential for significant environmental impacts, this option was excluded from AMP 4 Phase 1 and AMP5 unconstrained options. Exclusion remains valid. Support for the idea of trading water with neighbouring water companies in a "regional grid" noted and welcomed. Southern Water will continue to actively work with neighbouring water companies through the Water Resources South East group to further enhance the benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable and facilitating cumulative environmental assessment (for example in respect of cumulative landscape effects). Our plan demonstrates the benefits of the WRSE group with several water trading and/or joint water resource scheme developments included in our strategies for each of our operating areas.

Hampshire and the Isle of Wight should have hosepipe bans once in every 10 years on average, like the rest of the country.	78	Our draft Drought Plan, published for consultation in 2018, introduces a new way of planning for droughts, which means we will need to act to tackle them less often. We plan to introduce Temporary Use Bans no more than once every 10 years on average, restrictions under drought orders no more than once every 20 years, and apply for drought orders and permits to take more water from the environment no more than once every 20 years (on average). These may need to be more frequent in Hampshire and the Isle of Wight until at least 2027, as we develop new water sources following changes to our licences to abstract water. Our drought plan sets out what we will do to keep supplying water during a drought. It shows: • the range and timing of actions we could take to keep providing tap water while droughts develop and worsen; and • the steps we'll take to protect the environment. The plan includes the triggers and actions we will take should there be an impending drought to reduce the amount of water being used.
The respondent states that it has to happen if it is necessary.	108	Comment noted.
The statement is misleading for North Kent because it is not every 10 years. New residential developments in the area was raised as a challenge.	25	Southern Water will continue to actively work with neighbouring water companies through the Water Resources South East group to further enhance the benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable and facilitating cumulative environmental assessment (for example in respect of cumulative landscape effects). As noted, our plan demonstrates the benefits of the WRSE group with several water trading and/or joint water resource scheme developments included in our strategies for each of our operating areas.
Comments from those who don't know if they support that the plan includes the use of water restrictions (hosepipe bans) during a drought once in every 10 years on average.		

SWS need to secure water sources instead of punishing customers.	79	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, we face some significant deficits that require us to look towards a mix of options. Our modelling undertaken on the draft WRMP indicates that under all potential futures we need to investigate in AMP 7, and then build in AMP8 a large desalination plant or other high tech solution (e.g. water re-use). Our re-modelling for the revised draft WRMP confirms that a high tech solution will be required, in addition to increased metering, improved sharing of water both with neighbouring companies and within our own supply areas, and other solutions. Our plans now include detailed investigations of solutions, to ensure they can be consented and delivered rapidly to meet the challenges proposed by licence changes in Hampshire. We have identified in our revised draft WRMP both our preferred solution, but also alternatives that will be progressed should our preferred plan not be deliverable. We will investigate and promote our preferred and alternative schemes in parallel.
With effective management this would not be necessary.	29	Our draft Drought Plan, published for consultation in 2018, introduces a new way of planning for droughts, which means we will need to act to tackle them less often. We plan to introduce Temporary Use Bans no more than once every 10 years on average, restrictions under drought orders no more than once every 20 years, and apply for drought orders and permits to take more water from the environment no more than once every 20 years (on average). These may need to be more frequent in Hampshire and the Isle of Wight until at least 2027, as we develop new water sources following changes to our licences to abstract water. The draft Drought Plan includes triggers and actions should we experience a drought that may include hosepipe bans. It is not considered that outside of drought conditions that restrictions are required although we will continue to work with customers to educate them about using water wisely.
The respondent's water supplier is Portsmouth Water.	114	N/A

Question 7: Do you think water recycling (from wastewater) has a role to play in securing water supplies for the future?

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who think that water recycling (from wastewater) has a role to play in securing water supplies for the future.		
Many comments were generally in support of water recycling having a role to play in securing water supplies for the future. One respondent stated that it is critical if the pressure on original sources is to be reduced, and another stated that it could alleviate the need for hosepipe bans. One respondent hoped that all wastewater is recycled within 20 years.	2, 24, 33, 54, 80, 90, 109, 115	Support for water recycling (from wastewater) having a role to play in securing water supplies for the future noted and welcomed.
The respondents stated that they thought SWS were already doing this.	7, 81	Southern Water has undertaken extensive investigation of potential water recycling or reuse options during the last decade, both in terms of the potential locations where such schemes may be appropriate, the potential customer issues relating to recycling water for reuse, and the technical and environmental challenges that such options pose (including physiochemical challenges). We have completed sufficient investigation and assessment work to provide the confidence that such schemes are acceptable in principle, but further more detailed investigations and assessments will need to be undertaken as part of the preparation and determination of necessary consents.
Water recycling from wastewater, to free up fresh water supplies is strongly supported by Fareham Borough Council. Opportunities to develop new water recycling infrastructure and reduce the need from more sensitive supply sources, such as river abstractions and groundwater aquifers should be maximised, in order to help ensure water security for the Borough's existing and new residents.	47	Support for water recycling (from wastewater) noted and welcomed… In terms of efficiency and innovation, we need to embrace new and better ways of doing things. We accept that we need to embrace new technologies where they deliver solutions that are cost effective and benefit the environment.

Preferably for non-potable home use and agricultural and industrial use, which do not need such high standards. One respondent queried if the wastewater would be converted to drinking water.	20, 106, 114	Southern Water has undertaken extensive investigation of potential water recycling or reuse options during the last decade, both in terms of the potential locations where such schemes may be appropriate, the potential customer issues relating to recycling water for reuse, and the technical and environmental challenges that such options pose (including physiochemical challenges). We have completed sufficient investigation and assessment work to provide the confidence that such schemes are acceptable in principle, but further more detailed investigations and assessments will need to be undertaken as part of the preparation and determination of necessary consents.
One respondent was concerned about the possibility of chemicals or hormones in the recycled water.	27	Southern Water has undertaken extensive investigation of potential water recycling or reuse options during the last decade, both in terms of the potential locations where such schemes may be appropriate, the potential customer issues relating to recycling water for reuse, and the technical and environmental challenges that such options pose (including physiochemical challenges). We have completed sufficient investigation and assessment work to provide the confidence that such schemes are acceptable in principle, but further more detailed investigations and assessments will need to be undertaken as part of the preparation and determination of necessary consents.
The process must not create pollution.	83	Detailed SEA, Habitat Regulations Assessment (HRA) and WFD assessments have been undertaken for all feasible options to fully understand the overall potential effects of all our options. Where applicable, we have identified mitigation measures to prevent or reduce any identified significant adverse environmental or social effects of an option. We took these mitigation measures into account in assessing the potential residual effects on the environment and/or supply. Southern Water has included in its revised draft WRMP its commitment to a number of design principles for its supply enhancement options as set out in Annex 6 of the revised draft WRMP (and in the SEA, HRA and WFD Reports) that will inform the detailed design of schemes which includes seeking an overall net biodiversity gain in developing each scheme as far as possible, working in close dialogue with Natural England, Environment Agency and other stakeholders.

It may require the establishment of a second distribution network, covering only users of lower-quality water.	82	Southern Water has undertaken extensive investigation of potential water recycling or reuse options during the last decade, both in terms of the potential locations where such schemes may be appropriate, the potential customer issues relating to recycling water for reuse, and the technical and environmental challenges that such options pose (including physiochemical challenges). We have completed sufficient investigation and assessment work to provide the confidence that such schemes are acceptable in principle, but further more detailed investigations and assessments will need to be undertaken as part of the preparation and determination of necessary consents.
It depends how much it will cost and how much energy it will use.	109, 114	The strategy presented in our dWRMP comprises a mix of options that are considered to provide a secure supply of water, protect the environment and represent best value for customers. In terms of innovation we need to embrace new technologies where they deliver solutions that are cost effective and benefit the environment. This will extend beyond, but include renewable energy.
One respondent queried why SWS is not using sea water, with salt removed, for non-drinking purposes.	25	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.

It need not be a priority if leaks are sorted and rain is collected more efficiently and shared by other water companies.	4	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, as noted, it is not necessary economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.

It is not obvious how SWS optimise linkages between the water supply and waste water management side of the business. The proposal presents an opportunity to rethink the traditional approach and reverse old schemes, like Sea Clean Wight and other long-sea outfalls, to retain water within local catchments. This has the potential to benefit protected sites by reducing levels of nitrates discharged into the Solent.	54	Southern Water is keen to work with Natural England and our catchment partners to identify the wider potential co-benefits of our catchment management schemes which have a primary focus on improving drinking water quality and/or enhancing environmental resilience of water bodies from which we abstract. As part of our commitment to achieving overall net environmental gain from implementation of our WRMP, we will actively work with Natural England and our catchment partners to maximise benefits for biodiversity and society as a whole from our catchment management investment, adopting ecosystem services and Natural Capital assessment approaches in line with the Government's 25 year plan for the environment and Southern Water's wider Integrated Water Cycle Management approach.
This is a high-risk option for SWS, particularly because it will be done in the River Itchen, a SAC river. Challenges the respondent raised include: • Achieving high water quality standards in terms of technical and public perception. Nutrients, biocides, micro-plastics, EDCs, water temperature pH and other standard water quality parameters are important. • How it will affect migratory fish. The draft WRMP recognises an element of risk and uncertainty but does not clearly set out how SWS will work with others to test its feasibility and acceptability.	54	Southern Water has undertaken extensive investigation of potential water recycling or reuse options during the last decade, both in terms of the potential locations where such schemes may be appropriate, the potential customer issues relating to recycling water for reuse, and the technical and environmental challenges that such options pose (including physiochemical challenges). We have completed sufficient investigation and assessment work to provide the confidence that such schemes are acceptable in principle, but further more detailed investigations and assessments will need to be undertaken as part of the preparation and determination of necessary consents. We look forward to working with other partners and stakeholders on the details of these schemes.

The working relationship between SWS and the Environment Agency is not as close as it might be because of the regulated relationship and SWS's commercial interests. Development of a desalination plant and in particular waste water re-use scheme(s) in or near to protected sites warrant exceptional working practices.	54	Southern Water is keen to work with Natural England and our catchment partners to identify the wider potential co-benefits of our catchment management schemes which have a primary focus on improving drinking water quality and/or enhancing environmental resilience of water bodies from which we abstract. As part of our commitment to achieving overall net environmental gain from implementation of our WRMP, we will actively work with Natural England and our catchment partners to maximise benefits for biodiversity and society as a whole from our catchment management investment, adopting ecosystem services and Natural Capital assessment approaches in line with the Government's 25 year plan for the environment and Southern Water's wider Integrated Water Cycle Management approach. The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP.

Several comments focused on water recycling measures to be taken by households and business, including the following: • to reuse water from household tasks sounds the best course of action • SWS should develop schemes and / or devices which enable householders to collect rainwater and grey water and reuse them in the garden • SWS should encourage campsites, businesses and householders to install rainwater collecting systems • the installation costs of grey water systems for householders are prohibitive • grey water systems should be mandatory in all new housing and commercial developments • if everyone could have ground reservoirs under their patios this would contribute greatly • the problem with domestic water butts is that they empty quickly and in a period of little or no rain, one is reliant again on supplied water.	5, 6, 8, 29, 34, 117	Our Target 100 initiative is considered to be ambitious in comparison to other water company targets, and has been welcomed by the Environment Agency and others in their responses to the WRMP. The Target 100 extends across all homes, not just new home, and our initial plans have four key strands: 1. Installation of smart metering technology: We are currently undertaking trials of devices that can read meters and send the reading to the customers using their Wifi. If the trial proves successful, we plan to roll out 100,000 devices over AMP7. 2. Home visits: We currently undertake water efficiency home visits, which has a high uptake rate and can result in up to 10% further savings on top of that achieved through metering. We will continue with this programme and combine it with leak detection. 3. Proactive customer contact: We are looking to develop tools and systems to identify any significant increase in consumption. We can then proactively engage with customers at an early stage to determine if the increase is due to change in circumstances or may be a leak. This will allow us to specifically target customers or geographical areas for water efficiency messages during periods of high demand. 4. Incentivising water efficiency behaviour: Our research has shown little appetite for seasonal tariffs and so as an alternative, we are looking to reward customers for conserving water. The first scheme will be rolled out in Hampshire in partnership with Eastleigh Borough Council. The scheme will offer rewards to residents for recycling waste and reducing water consumption on a monthly basis. The scheme will be introduced in the Central area towards the end of AMP7 and in the Eastern area during AMP8. To achieve Target 100 we will also need to continue our work with developers and local planning authorities to actively promote water efficiency. We also agree that changes to Building Regulations will greatly assist in achieving Target 100. It is agreed that there is potential with new homes to deliver lower pcc in new homes and have a number of initiatives seeking to achieve this.
Comments from those who do not think that water recycling (from wastewater) has a role to play in securing water supplies for the future.		

Need to conserve water before this.	111	Our Target 100 initiative is considered to be ambitious in comparison to other water company targets, and has been welcomed by the Environment Agency and others in their responses to the WRMP. The Target 100 extends across all homes, not just new home, and our initial plans have four key strands: 1. Installation of smart metering technology: We are currently undertaking trials of devices that can read meters and send the reading to the customers using their Wifi. If the trial proves successful, we plan to roll out 100,000 devices over AMP7. 2. Home visits: We currently undertake water efficiency home visits, which has a high uptake rate and can result in up to 10% further savings on top of that achieved through metering. We will continue with this programme and combine it with leak detection. 3. Proactive customer contact: We are looking to develop tools and systems to identify any significant increase in consumption. We can then proactively engage with customers at an early stage to determine if the increase is due to change in circumstances or may be a leak. This will allow us to specifically target customers or geographical areas for water efficiency messages during periods of high demand. 4. Incentivising water efficiency behaviour: Our research has shown little appetite for seasonal tariffs and so as an alternative, we are looking to reward customers for conserving water. The first scheme will be rolled out in Hampshire in partnership with Eastleigh Borough Council. The scheme will offer rewards to residents for recycling waste and reducing water consumption on a monthly basis. The scheme will be introduced in the Central area towards the end of AMP7 and in the Eastern area during AMP8. To achieve Target 100 we will also need to continue our work with developers and local planning authorities to actively promote water efficiency. We also agree that changes to Building Regulations will greatly assist in achieving Target 100. It is agreed that there is potential with new homes to deliver lower pcc in new homes and have a number of initiatives seeking to achieve this.
Comments from those who are not sure if water recycling (from wastewater) has a role to play in securing water supplies for the future.		

The respondent would like more information about this.	93	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.
Not for drinking water.	18	Southern Water has undertaken extensive investigation of potential water recycling or reuse options during the last decade, both in terms of the potential locations where such schemes may be appropriate, the potential customer issues relating to recycling water for reuse, and the technical and environmental challenges that such options pose (including physiochemical challenges). We have completed sufficient investigation and assessment work to provide the confidence that such schemes are acceptable in principle, but further more detailed investigations and assessments will need to be undertaken as part of the preparation and determination of necessary consents.

Question 8: Do you think desalination has a role to play in securing water supplies for the future?

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who do think desalination has a role to play in securing water supplies for the future.		
Several comments generally in support of desalination having a role to play in securing water supplies for the future, with one respondent stating that this should have already been done.	6, 54, 91, 107, 126	Support for desalination having a role to play in securing water supplies for the future noted and welcomed.
Comments focused on the benefits of desalination: • Less weather dependant • More sustainable in long term • Less impact on environment • Will become more economically viable	20, 106	Support for desalination having a role to play in securing water supplies for the future noted and welcomed.

The Ouse & Adur Rivers Trust stated that the sea is a limitless water resource. With new graphene nanotechnology the process of desalination will become more economically viable. By using desalination as a major contribution to the water SWS supply, the need for damaging abstraction from the environment can be drastically reduced.	128	In terms of innovation we need to embrace new technologies where they deliver solutions that are cost effective and benefit the environment. This will extend beyond, but include renewable energy. Southern Water is keen to work with our catchment partners to identify the wider potential co-benefits of our catchment management schemes which have a primary focus on improving drinking water quality and/or enhancing environmental resilience of water bodies from which we abstract. As part of our commitment to achieving overall net environmental gain from implementation of our WRMP, we will actively work with our catchment partners to maximise benefits for biodiversity and society as a whole from our catchment management investment, adopting ecosystem services and Natural Capital assessment approaches in line with the Government's 25 year plan for the environment and Southern Water's wider Integrated Water Cycle Management approach.
It is necessary given an increasing population and the promotion of tourism along the coastlines, which results in greater water use.	7, 24	Comments in support for desalination having a role to play in securing water supplies for the future noted and welcomed.
There will be no choice unless SWS build a big transfer pipe from the north west.	24	Comments in support for desalination having a role to play in securing water supplies for the future noted and welcomed.
Other options, such as water reuse, should be investigated and developed first. Some respondents stated that this is because desalination is expensive, there are issues with waste generated and the amount of energy needed, and it impacts on chalk streams.	38, 90, 115, 125	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.

Desalination should be a last resort.	4, 82, 89	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.
It depends on financial and energy costs.	84, 114	We will, as part of desalination proposals investigate the potential for the use of renewables for power, and we have also through work to date, been investigating the potential benefits of co-locating desalination plants close to existing power stations where thermal benefits from the use of cooling water, and the potential to mix and dilute hypersaline discharges has been investigated. We have presented what we consider to be a balanced plan. It contains both supply side and demand side options (building on Southern Water's already very high metering levels, for example). However, the company faces some very significant deficits that cannot be met by demand management options alone - they require development of large scale supply side schemes. The modelling we undertake to identify our preferred strategies is based on identifying the least cost solution. We do however take into account other criteria to ensure our proposals represent the optimum balance of financial, environmental and social costs. We also take into account risks, uncertainties and social costs. The potential impact on bill payers is therefore an important consideration. We accept that some of the new technology that we will need to use in the future, such as desalination, can be expensive to build and operate. It may be the case that we will only need to operate such plants in dry or a very dry year, and so we are designing them to be used at a much lower capacity for most of the time. In this way we can keep ongoing operational costs to a minimum.

As long as the process does not harm the environment, including wildlife and marine ecosystems.	6, 54, 83, 111	The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP.
If it is done with renewable energy it will be much better than the over-abstraction of groundwater and rivers.	81	We will, as part of desalination proposals investigate the potential for the use of renewables for power, and we have also through work to date, been investigating the potential benefits of co-locating desalination plants close to existing power stations where thermal benefits from the use of cooling water, and the potential to mix and dilute hypersaline discharges has been investigated.
Cannot see another source of clean water without a national grid.	115	Southern Water will continue to actively work with neighbouring water companies through the Water Resources South East group to further enhance the benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable and facilitating cumulative environmental assessment (for example in respect of cumulative landscape effects). Our plan demonstrates the benefits of the WRSE group with several water trading and/or joint water resource scheme developments included in our strategies for each of our operating areas.
The water needs to taste better than other desalinated water.	15	We accept that we need to embrace new and better ways of doing things. We will continue to look at innovative ways to improve, protect, and secure reliable sources of water.

The plan needs more detail, including how SWS will manage the process of developing these options, and timelines and milestones.	54	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.
Comments from those who don't think desalination has a role to play in securing water supplies for the future.		
More research of the health impacts is required.	18	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.

Desalination uses too much energy and is expensive.	12, 119	We will, as part desalination proposals investigate the potential for the use of renewables for power, and we have also through work to date, been investigating the potential benefits of co-locating desalination plants close to existing power stations where thermal benefits from the use of cooling water, and the potential to mix and dilute hypersaline discharges has been investigated. We have presented what we consider to be a balanced plan. It contains both supply side and demand side options (building on Southern Water's already very high metering levels, for example). However, the company faces some very significant deficits that cannot be met by demand management options alone - they require development of large scale supply side schemes. The modelling we undertake to identify our preferred strategies is based on identifying the least cost solution. We do however take into account other criteria to ensure our proposals represent the optimum balance of financial, environmental and social costs. We also take into account risks, uncertainties and social costs. The potential impact on bill payers is therefore an important consideration. We accept that some of the new technology that we will need to use in the future, such as desalination, can be expensive to build and operate. It may be the case that we will only need to operate such plants in dry or a very dry year, and so we are designing them to be used at a much lower capacity for most of the time. In this way we can keep ongoing operational costs to a minimum.
There is scope for more wastewater to be reused.	2	Southern Water has undertaken extensive investigation of potential water recycling or reuse options during the last decade, both in terms of the potential locations where such schemes may be appropriate, the potential customer issues relating to recycling water for reuse, and the technical and environmental challenges that such options pose (including physiochemical challenges). We have completed sufficient investigation and assessment work to provide the confidence that such schemes are acceptable in principle, but further more detailed investigations and assessments will need to be undertaken as part of the preparation and determination of necessary consents. We look forward to working with the Trust and other partners and stakeholders on the details of these schemes.

It is not sustainable. The carbon footprint and environmental impacts need to be reduced.	87, 119	We will, as part of desalination proposals investigate the potential for the use of renewables for power, and we have also through work to date, been investigating the potential benefits of co-locating desalination plants close to existing power stations where thermal benefits from the use of cooling water, and the potential to mix and dilute hypersaline discharges has been investigated. Southern Water is targeting its use of renewable energy and has included proposals within its emerging Business Plan on this area. Southern Water has also published it carbon policy on its website.
It might be ok for Australia where it is dry, but not here.	109	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.
Comments from those who are not sure if desalination has a role to play in securing water supplies for the future.		
It is Fareham Borough Council's view that desalination plants should be considered as a last resort due to the substantial costs involved, the energy needs of such plants and the consequential impacts that desalination may have on groundwater and the marine environment.	47	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.

Swale Borough Council stated that the energy implications of desalination need to be carefully planned for and it is likely that it will play an important role in the future water supply. It would be helpful to have an indication of the role of renewable energy in future supply, particularly with regard to energy hungry methods such as desalination. Whilst Southern Water state that they currently use 17% renewable energy, and state that they want to increase this percentage, they do not set a target for this. This would be helpful in an assessment of their commitment.	57	We will, as part desalination proposals investigate the potential for the use of renewables for power, and we have also through work to date, been investigating the potential benefits of co-locating desalination plants close to existing power stations where thermal benefits from the use of cooling water, and the potential to mix and dilute hypersaline discharges has been investigated.
The desalination process is currently convoluted and not an efficient way of obtaining water that is to a minimum standard.	29	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.
It is an obvious option for the UK, however other options should be explored first.	23	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.

Do not see why it would be necessary in the South East with widespread water recycling.	33	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.
A clear idea of the impacts this would have is needed.	122	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.
The environmental consequences, including impacts on wildlife, need to be considered. One respondent stated that grey field sites along coastal areas should be a priority for new plants.	5, 74	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.

There are economic issues. Perhaps link to solar power.	26	We will, as part desalination proposals investigate the potential for the use of renewables for power, and we have also through work to date, been investigating the potential benefits of co-locating desalination plants close to existing power stations where thermal benefits from the use of cooling water, and the potential to mix and dilute hypersaline discharges has been investigated. We have presented what we consider to be a balanced plan. It contains both supply side and demand side options (building on Southern Water's already very high metering levels, for example). However, the company faces some very significant deficits that cannot be met by demand management options alone - they require development of large scale supply side schemes. The modelling we undertake to identify our preferred strategies is based on identifying the least cost solution. We do however take into account other criteria to ensure our proposals represent the optimum balance of financial, environmental and social costs. We also take into account risks, uncertainties and social costs. The potential impact on bill payers is therefore an important consideration. We accept that some of the new technology that we will need to use in the future, such as desalination, can be expensive to build and operate. It may be the case that we will only need to operate such plants in dry or a very dry year, and so we are designing them to be used at a much lower capacity for most of the time. In this way we can keep ongoing operational costs to a minimum.

Lobby the government to spread the population more evenly across the UK, to ensure that drier areas are not overloaded.	25	The Councils comments are welcomed and noted. Our WRMP forecasts population and housing growth over a 50 year period. We forecast growth primarily based on housing projections by Local Authorities in our supply area. We also look at demographic trends and use micro-component analysis (assessing expected water use within the home) to forecast domestic demand. This feeds into our supply-demand balance, which determines how much water we need to supply in the future. Our WRMP then sets out how we will supply that water and meet future demand. We recognise that we need to have effective, integrated water infrastructure that is fit for purpose to meet the needs of a growing populations. We need to work with government, local authorities and developers to ensure we know when development is coming forward and also ensure that new homes are water efficient.
The respondent would like more information about this.	93	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, we face some significant deficits that require us to look towards a mix of options. Our modelling undertaken on the draft WRMP indicates that under all potential futures we need to investigate in AMP 7, and then build in AMP8 a large desalination plant or other high tech solution (e.g. water re-use). Our re-modelling for the revised draft WRMP confirms that a high tech solution will be required, in addition to increased metering, improved sharing of water both with neighbouring companies and within our own supply areas, and other solutions. Our plans now include detailed investigations of solutions, to ensure they can be consented and delivered rapidly to meet the challenges proposed by licence changes, in particular, within Hampshire. We have identified in our revised draft WRMP both our preferred solution, but also alternatives that will be progressed should our preferred plan not be deliverable. We will investigate and promote our preferred and alternative schemes in parallel.

Question 9: After we've introduced options to save water, such as reducing leaks and Target 100, which would you prefer use to develop first – water recycling or desalination?

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who would prefer water recycling to be developed first.		
It is Fareham Borough Council's view that water recycling (of wastewater) should be developed first, due to the environmental and energy benefits that recycling has over desalination.	47	Support for water recycling to be developed first and having a role to play in securing water supplies for the future noted and welcomed. Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, we face some significant deficits that require us to look towards a mix of options. Our modelling undertaken on the draft WRMP indicates that under all potential futures we need to investigate in AMP 7, and then build in AMP8 a large desalination plant or other high tech solution (e.g. water re-use). Our re-modelling for the revised draft WRMP confirms that a high tech solution will be required, in addition to increased metering, improved sharing of water both with neighbouring companies and within our own supply areas, and other solutions. Our plans now include detailed investigations of solutions, to ensure they can be consented and delivered rapidly to meet the challenges proposed by licence changes in Hampshire. We have identified in our revised draft WRMP both our preferred solution, but also alternatives that will be progressed should our preferred plan not be deliverable. We will investigate and promote our preferred and alternative schemes in parallel.
Comments referring to the advantages of water recycling, including the following: • more efficient process • cheaper • less damaging to the environment and ecosystems.	6, 33, 101, 114	Southern Water has undertaken extensive investigation of potential water recycling or reuse options during the last decade, both in terms of the potential locations where such schemes may be appropriate, the potential customer issues relating to recycling water for reuse, and the technical and environmental challenges that such options pose (including physiochemical challenges). We have completed sufficient investigation and assessment work to provide the confidence that such schemes are acceptable in principle, but further more detailed investigations and assessments will need to be undertaken as part of the preparation and determination of necessary consents.

Both options need to be developed together. The re-use of wastewater has greater environmental risks, and a robust evidence base is needed to prove its ecological acceptability. This technical feasibility work must be progressed with inclusivity and transparency. If by 2023/24 water re-use remains an option but without a robust evidence base then other sources may have to come forward, so developing a Plan B is critical.	54	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.
As much water as possible should be recycled. One respondent stated that the target should be to recycle 100% of water.	2, 27, 89	Support for water recycling having a role to play in securing water supplies for the future noted and welcomed.
Water is already recycled.	24	Support for water re-cycling is noted.
Simpler solutions, such as reducing water leaks, should be tried first.	4, 6	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, as noted, it is not necessary economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050.
Comments from those who would prefer desalination to be developed first.		

Water recycling has a higher risk of reducing river flows in the lower reaches of rivers.	21	Detailed SEA, Habitat Regulations Assessment (HRA) and WFD assessments have been undertaken for all feasible options to fully understand the overall potential effects of all our options. Where applicable, we have identified mitigation measures to prevent or reduce any identified significant adverse environmental or social effects of an option. We took these mitigation measures into account in assessing the potential residual effects on the environment and/or supply. Southern Water has included in its revised draft WRMP its commitment to a number of design principles for its supply enhancement options as set out in Annex 6 of the revised draft WRMP (and in the SEA, HRA and WFD Reports) that will inform the detailed design of schemes which includes seeking an overall net biodiversity gain in developing each scheme as far as possible, working in close dialogue with Natural England, Environment Agency and other stakeholders.
Our location means there is ease of access to the sea.	20	Support for desalination to be developed first and having a role to play in securing water supplies for the future noted and welcomed. Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, we face some significant deficits that require us to look towards a mix of options. Our modelling undertaken on the draft WRMP indicates that under all potential futures we need to investigate in AMP 7, and then build in AMP8 a large desalination plant or other high tech solution (e.g. water re-use). Our re-modelling for the revised draft WRMP confirms that a high tech solution will be required, in addition to increased metering, improved sharing of water both with neighbouring companies and within our own supply areas, and other solutions. Our plans now include detailed investigations of solutions, to ensure they can be consented and delivered rapidly to meet the challenges proposed by licence changes in Hampshire. We have identified in our revised draft WRMP both our preferred solution, but also alternatives that will be progressed should our preferred plan not be deliverable. We will investigate and promote our preferred and alternative schemes in parallel.
Comments from those who are not sure whether they would prefer water recycling or desalination to be developed first.		

Comments indicating preference for whichever option is most: • cost efficient • environmentally sustainable • socially sustainable • practicable • quick • able to provide a continuous water supply.	10, 19, 25, 75, 80, 96	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, we face some significant deficits that require us to look towards a mix of options. Our modelling undertaken on the draft WRMP indicates that under all potential futures we need to investigate in AMP 7, and then build in AMP8 a large desalination plant or other high tech solution (e.g. water re-use). Our re-modelling for the revised draft WRMP confirms that a high tech solution will be required, in addition to increased metering, improved sharing of water both with neighbouring companies and within our own supply areas, and other solutions. Our plans now include detailed investigations of solutions, to ensure they can be consented and delivered rapidly to meet the challenges proposed by licence changes in Hampshire. We have identified in our revised draft WRMP both our preferred solution, but also alternatives that will be progressed should our preferred plan not be deliverable. We will investigate and promote our preferred and alternative schemes in parallel.
Water recycling and desalination should be developed together.	7, 85, 103	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.

Desalination should be developed first.	115	Support for desalination to be developed first and having a role to play in securing water supplies for the future noted and welcomed. Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, we face some significant deficits that require us to look towards a mix of options. Our modelling undertaken on the draft WRMP indicates that under all potential futures we need to investigate in AMP 7, and then build in AMP8 a large desalination plant or other high tech solution (e.g. water re-use). Our re-modelling for the revised draft WRMP confirms that a high tech solution will be required, in addition to increased metering, improved sharing of water both with neighbouring companies and within our own supply areas, and other solutions. Our plans now include detailed investigations of solutions, to ensure they can be consented and delivered rapidly to meet the challenges proposed by licence changes in Hampshire. We have identified in our revised draft WRMP both our preferred solution, but also alternatives that will be progressed should our preferred plan not be deliverable. We will investigate and promote our preferred and alternative schemes in parallel.
Desalination could provide a future water supply, but it might be expensive.	95	We have presented what we consider to be a balanced plan. It contains both supply side and demand side options (building on Southern Water's already very high metering levels, for example). However, the company faces some very significant deficits that cannot be met by demand management options alone - they require development of large scale supply side schemes. The modelling we undertake to identify our preferred strategies is based on identifying the least cost solution. We do however take into account other criteria to ensure our proposals represent the optimum balance of financial, environmental and social costs. We also take into account risks, uncertainties and social costs. The potential impact on bill payers is therefore an important consideration. We accept that some of the new technology that we will need to use in the future, such as desalination, can be expensive to build and operate. It may be the case that we will only need to operate such plants in dry or a very dry year, and so we are designing them to be used at a much lower capacity for most of the time. In this way we can keep ongoing operational costs to a minimum.

The respondent queried if the reservoir was an option to be developed first.	112	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.
More information on both options, including about the cost and efficiency, is needed before a judgement can be made.	13, 16, 93, 126	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.

Question 10: Do you support our Target 100 to reduce personal water use to 100 litres per day by 2040?

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who do support the Target 100 to reduce personal water use to 100 litres per day by 2040.		
Comments generally in support of Target 100.	29, 54, 86, 115	Support for Target 100 noted and welcomed.

Swale Borough Council is keen to support water efficiency measures and indeed have an adopted local plan policy requiring a water efficiency target of 110lpppd for all new homes which Southern Water have supported. A clearer explanation of how the commendable Target 100 will be achieved would be helpful, especially considering it is so much more ambitious than South East Water's target - a company which presumably faces similar challenges. A consistent, nationwide approach, would enable water efficiency measures to be integrated more easily into all new homes and refurbishments – eg taps, toilets, white goods etc. and government should support the industry in this endeavour. SBC are keen to work with local water companies and the water and construction industry in increasing water efficiency further and streamlining water efficiency measures it into the way people live their lives in future and would be keen to hear more from Southern Water about their schemes eg at Ebbsfleet Garden City. SBC do hope Southern Water will engage with the emerging Swale Local Plan and attend the Infrastructure and Utilities workshop on 12th June, to which they have been invited.	57	We have set ourselves the target of reducing water use to 100 litres per day by 2040 - a reduction of 25% by 2040. Some of our metered households achieve this level of water use already. To achieve this across the board, we will need Building Regulations and Local Plan policy support, and we look to work closely with the Council and other partners in innovating and leading the way in ensuring that we can achieve this target. Our Target 100 initiative is considered to be ambitious in comparison to other water company targets, and has been welcomed by the Environment Agency and others in their responses to the WRMP. The Target 100 extends across all homes, not just new home, and our initial plans have four key strands: 1. Installation of smart metering technology: We are currently undertaking trials of devices that can read meters and send the reading to the customers using their Wifi. If the trial proves successful, we plan to roll out 100,000 devices over AMP7. 2. Home visits: We currently undertake water efficiency home visits, which has a high uptake rate and can result in up to 10% further savings on top of that achieved through metering. We will continue with this programme and combine it with leak detection. 3. Proactive customer contact: We are looking to develop tools and systems to identify any significant increase in consumption. We can then proactively engage with customers at an early stage to determine if the increase is due to change in circumstances or may be a leak. This will allow us to specifically target customers or geographical areas for water efficiency messages during periods of high demand. 4. Incentivising water efficiency behaviour: Our research has shown little appetite for seasonal tariffs and so as an alternative, we are looking to reward customers for conserving water. The first scheme will be rolled out in Hampshire in partnership with Eastleigh Borough Council. The scheme will offer rewards to residents for recycling waste and reducing water consumption on a monthly basis. The scheme will be introduced in the Central area towards the end of AMP7 and in the Eastern area during AMP8. To achieve Target 100 we will also need to continue our work with developers and local planning authorities to actively promote water efficiency. We also agree that changes to Building Regulations will greatly assist in achieving Target 100. It is agreed that there is potential with new homes to deliver lower pcc in new homes and have a number of initiatives seeking to achieve this.

Fareham Borough Council support the approach of Target 100 to reduce personal water use to 100 litres per day. This includes the reference to encouraging developers to build more sustainable homes which use less water and work towards Target 100 to reduce the amount of extra water Southern Water needs to find. It is noted that this proposed approach will respond to the supply issues faced by Southern Water (i.e. abstraction licence restrictions) and respond positively to the existing NPPF (Paragraph 7) and Draft NPPF (Paragraph 8) to use natural resources prudently. However, consideration will need to be given to whether this standard could be enforced through Local Plans in areas of water stress when factoring in Part G of the Building Regulations (i.e. maximum of 105 litres per day excluding external water use as the higher optional standard which is above that proposed through Target 100). The mechanism for how this will be implemented and achieved in practice will need to be given consideration.	47	Support for Target 100 noted and welcomed. We have set ourselves the target of reducing water use to 100 litres per day by 2040 - a reduction of 25% by 2040. Some of our metered households achieve this level of water use already. To achieve this across the board, we will need Building Regulations and Local Plan policy support, and we look to work closely with the Council and other partners in innovating and leading the way in ensuring that we can achieve this target.
The target should be higher or achieved sooner One respondent stated that the target could be achieved sooner through greater investment.	54, 74, 83, 119, 124	Our Target 100 initiative is considered to be ambitious in comparison to other water company targets, and has been welcomed by the Environment Agency and others in their responses to the WRMP.

It depends on individual circumstances. Exceptional circumstances, such as for health needs, should be allowed.	90, 114	We agree with these respondents. Our initial plans for The Target 100 includes four key strands; one of these strands is as follows – 4. Incentivising water efficiency behaviour: Our research has shown little appetite for seasonal tariffs and so as an alternative, we are looking to reward customers for conserving water. The first scheme will be rolled out in Hampshire in partnership with Eastleigh Borough Council. The scheme will offer rewards to residents for recycling waste and reducing water consumption on a monthly basis. The scheme will be introduced in the Central area towards the end of AMP7 and in the Eastern area during AMP8. To achieve Target 100 we will also need to continue our work with developers and local planning authorities to actively promote water efficiency. We also agree that changes to Building Regulations will greatly assist in achieving Target 100. We have updated our revised draft WRMP to reflect the additional commitments we are giving, including additional information on Target 100 measures (in Appendix C to Annex 6) and reflecting this within our revised strategies set out in Section 7 of the WRMP Technical Overview document (and related Annexes 9 to 11).

There should be more education, training and notices to make the public aware. One respondent stated that it would help if there was more publicity about what 100 litres can be used for.	2, 83	Our initial plans for The Target 100 includes four key strands; one of these strands is as follows – 4. Incentivising water efficiency behaviour: Our research has shown little appetite for seasonal tariffs and so as an alternative, we are looking to reward customers for conserving water. The first scheme will be rolled out in Hampshire in partnership with Eastleigh Borough Council. The scheme will offer rewards to residents for recycling waste and reducing water consumption on a monthly basis. The scheme will be introduced in the Central area towards the end of AMP7 and in the Eastern area during AMP8. To achieve Target 100 we will also need to continue our work with developers and local planning authorities to actively promote water efficiency. We also agree that changes to Building Regulations will greatly assist in achieving Target 100. We have updated our revised draft WRMP to reflect the additional commitments we are giving, including additional information on Target 100 measures (in Appendix C to Annex 6) and reflecting this within our revised strategies set out in Section 7 of the WRMP Technical Overview document (and related Annexes 9 to 11).
Behavioural programmes should be implemented, with financial rewards and penalties for customers.	10, 54, 74	Penalty-only incentives are generally not supported by customers in the research we have undertaken. Our research has shown little appetite for seasonal tariffs and so as an alternative, we are looking to reward customers for conserving water. The first scheme will be rolled out in Hampshire in partnership with Eastleigh Borough Council. The scheme will offer rewards to residents for recycling waste and reducing water consumption on a monthly basis. The scheme will be introduced in the Central area towards the end of AMP7 and in the Eastern area during AMP8.
There should be more local initiatives, such as the River Itchen Challenge.	54	Comments are noted. We welcome further communication and involvement in developing our solutions to provide water, for example, community schemes to save water, developing water recycling and in any other way.

New homes should be more water-efficient. One respondent stated that this could be enabled through commitments from house-builders to install grey water recycling and rainwater capture. Such infrastructure should have a long-term and year-round impact.	20, 21	We have set ourselves the target of reducing water use to 100 litres per day by 2040 - a reduction of 25% by 2040. Some of our metered households achieve this level of water use already. To achieve this across the board, we will need Building Regulations and Local Plan policy support, and we look to work closely with the Council and other partners in innovating and leading the way in ensuring that we can achieve this target. This will include working with developers.
The amount of domestic waste water should be limited, through fixing domestic leaks, re-plumbing and water reused for toilets. A lot of water is wasted running the hot tap until the water is hot. There should be a method of recycling it in the plumbing system.	7, 34, 92	Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. Our target of reducing water use to 100 litres per day is by 2040 - a reduction of 25%.
Meters are the most effective way to help people cut down their water usage. The respondent stated that their village was subject to meters recently but only a small percentage were actually fitted.	112	Agreed. Our initial plans for The Target 100 includes four key strands; one of which is the following strand – 1. Installation of smart metering technology: We are currently undertaking trials of devices that can read meters and send the reading to the customers using their Wifi. If the trial proves successful, we plan to roll out 100,000 devices over AMP7. We have updated our revised draft WRMP to reflect the additional commitments we are giving, including additional information on Target 100 measures (in Appendix C to Annex 6) and reflecting this within our revised strategies set out in Section 7 of the WRMP Technical Overview document (and related Annexes 9 to 11).
Households should store more rain to use for tasks such as flushing the toilets, watering the garden and car washing.	111	The Environment Agency has welcomed our Target 100 initiative and it is considered to be ambitious in comparison to other water company targets. The Target 100 extends across all homes, not just new homes. It is agreed that there is potential with new homes to deliver lower pcc in new homes and have a number of initiatives seeking to achieve this.

The respondent queried how SWS plan to achieve this reduction, and which actions will achieve which reductions.	75	Our Target 100 initiative is considered to be ambitious in comparison to other water company targets, and has been welcomed by the Environment Agency and others in their responses to the WRMP. The Target 100 extends across all homes, not just new home, and our initial plans have four key strands: 1. Installation of smart metering technology: We are currently undertaking trials of devices that can read meters and send the reading to the customers using their Wifi. If the trial proves successful, we plan to roll out 100,000 devices over AMP7. 2. Home visits: We currently undertake water efficiency home visits, which has a high uptake rate and can result in up to 10% further savings on top of that achieved through metering. We will continue with this programme and combine it with leak detection. 3. Proactive customer contact: We are looking to develop tools and systems to identify any significant increase in consumption. We can then proactively engage with customers at an early stage to determine if the increase is due to change in circumstances or may be a leak. This will allow us to specifically target customers or geographical areas for water efficiency messages during periods of high demand. 4. Incentivising water efficiency behaviour: Our research has shown little appetite for seasonal tariffs and so as an alternative, we are looking to reward customers for conserving water. The first scheme will be rolled out in Hampshire in partnership with Eastleigh Borough Council. The scheme will offer rewards to residents for recycling waste and reducing water consumption on a monthly basis. The scheme will be introduced in the Central area towards the end of AMP7 and in the Eastern area during AMP8. To achieve Target 100 we will also need to continue our work with developers and local planning authorities to actively promote water efficiency. We also agree that changes to Building Regulations will greatly assist in achieving Target 100. We have updated our revised draft WRMP to reflect the additional commitments we are giving, including additional information on Target 100 measures (in Appendix C to Annex 6) and reflecting this within our revised strategies set out in Section 7 of the WRMP Technical Overview document (and related Annexes 9 to 11).

It is difficult to reduce water consumption if you don't know how much water you are using.	126	Agreed. Our initial plans for The Target 100 includes four key strands which includes the following strand – 1. Installation of smart metering technology: We are currently undertaking trials of devices that can read meters and send the reading to the customers using their Wifi. If the trial proves successful, we plan to roll out 100,000 devices over AMP7. We have updated our revised draft WRMP to reflect the additional commitments we are giving, including additional information on Target 100 measures (in Appendix C to Annex 6) and reflecting this within our revised strategies set out in Section 7 of the WRMP Technical Overview document (and related Annexes 9 to 11).
It is difficult to meet the target even if trying to be economical.	6	Our initial plans for The Target 100 includes four key strands; which includes the following strand – 4. Incentivising water efficiency behaviour: Our research has shown little appetite for seasonal tariffs and so as an alternative, we are looking to reward customers for conserving water. The first scheme will be rolled out in Hampshire in partnership with Eastleigh Borough Council. The scheme will offer rewards to residents for recycling waste and reducing water consumption on a monthly basis. The scheme will be introduced in the Central area towards the end of AMP7 and in the Eastern area during AMP8. To achieve Target 100 we will also need to continue our work with developers and local planning authorities to actively promote water efficiency. We also agree that changes to Building Regulations will greatly assist in achieving Target 100. We have updated our revised draft WRMP to reflect the additional commitments we are giving, including additional information on Target 100 measures (in Appendix C to Annex 6) and reflecting this within our revised strategies set out in Section 7 of the WRMP Technical Overview document (and related Annexes 9 to 11).
Comments from those who do not support the Target 100 to reduce personal water use to 100 litres per day by 2040.		

Greater controls on commercial use and system leaks need to be addressed first.	18	Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. Our target of reducing water use to 100 litres per day is by 2040 - a reduction of 25%.
SWS should stop agreeing to supply new builds that they cannot guarantee a continuous drinking water supply to.	25	Southern Water will continue to actively work with neighbouring water companies through the Water Resources South East group to further enhance the benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable and facilitating cumulative environmental assessment (for example in respect of cumulative landscape effects). As noted, our plan demonstrates the benefits of the WRSE group with several water trading and/or joint water resource scheme developments included in our strategies for each of our operating areas.
Rain should be collected and shared more effectively.	4	We have set ourselves the target of reducing water use to 100 litres per day by 2040 - a reduction of 25% by 2040. Some of our metered households achieve this level of water use already. To achieve this across the board, we will need Building Regulations and Local Plan policy support, and we look to work closely with the Council and other partners in innovating and leading the way in ensuring that we can achieve this target. This will include working with developers.
The target should be achieved sooner.	82, 109	Our Target 100 initiative is considered to be ambitious in comparison to other water company targets, and has been welcomed by the Environment Agency and others in their responses to the WRMP.

It depends on individual circumstances. Those with large families or medical needs may need to use more.	95, 99	Agreed. Our initial plans for The Target 100 includes four key strands; one of these strands is as follows – Proactive customer contact: We are looking to develop tools and systems to identify any significant increase in consumption. We can then proactively engage with customers at an early stage to determine if the increase is due to change in circumstances or may be a leak. This will allow us to specifically target customers or geographical areas for water efficiency messages during periods of high demand.
Comments from those who are not sure if they support the Target 100 to reduce personal water use to 100 litres per day by 2040.		
Water supplies should be fixed first.	79	Our draft WRMP set out a combined strategy of reduced leakage and reduced water consumption. Further active leakage control in the short term will be followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. Our target of reducing water use to 100 litres per day is by 2040 - a reduction of 25%.
The respondent queried why.	127	We have set ourselves the target of reducing water use to 100 litres per day by 2040 - a reduction of 25% by 2040. Some of our metered households achieve this level of water use already. To achieve this across the board, we will need Building Regulations and Local Plan policy support, and we look to work closely with the Council and other partners in innovating and leading the way in ensuring that we can achieve this target.

Question 11: Should we do more to reduce leaks, even if it pushes your bills higher? (We plan to reduce leaks by 15% by 2025)

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who think that SWS should do more to reduce leaks, even if it pushes bills higher.		

Several comments generally in support of SWS doing more to reduce leaks, even if it pushes bills higher. Two respondents stated that this is of high priority.	5, 23, 54, 85, 86	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, it is not necessarily economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve, and we are very aware of the potential impacts on customer bills. We are exploring this with our financial regulator Ofwat, and are committed to ensuring that vulnerable groups and customers are protected.
Swale Borough Council stated that a proportionate approach should be taken here which balances costs and benefits, but it seems common sense to address the issue of leaks as a priority. Technological innovation to tackle this should be a priority.	57	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, it is not necessarily economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve and technological innovation.

Fareham Borough Council support the approach to reducing water leaks since it will help to ensure greater efficiency of water supply over the longer-term. Improvements to pipe infrastructure to facilitate water movement and in particular, those to reduce leaks, should be as ambitious as possible, in order to minimise water loss and reduce the demand on more sensitive supply sources.	47	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, it is not necessarily economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve, and we are very aware of the potential impacts on customer bills. We are exploring this with our financial regulator Ofwat, and are committed to ensuring that vulnerable groups and customers are protected.

The target is not ambitious enough.	18, 53, 54	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, it is not necessarily economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve, and we are very aware of the potential impacts on customer bills. We are exploring this with our financial regulator Ofwat, and are committed to ensuring that vulnerable groups and customers are protected.

Bills should not be pushed up too much because SWS should be reducing leaks anyway.	114, 119	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, it is not necessarily economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve, and we are very aware of the potential impacts on customer bills. We are exploring this with our financial regulator Ofwat, and are committed to ensuring that vulnerable groups and customers are protected.

The respondent stated that they would be happy to pay more if SWS took steps to avoid damaging waterways and the countryside.	86	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, it is not necessarily economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve, and we are very aware of the potential impacts on customer bills. We are exploring this with our financial regulator Ofwat, and are committed to ensuring that vulnerable groups and customers are protected.
Bills should not be pushed higher because it is SWS's statutory duty to reduce leaks. One respondent stated that the government should monitor water companies and penalise them if they fail to achieve Target.	2, 10	It is our statutory duty to develop and maintain an efficient and economical system of water supply within our area. Ofwat, our regulator, requires us and other water companies to fix leaks, as long as the cost of doing is less than the cost of not fixing the leak. The cost of not fixing a leak includes environmental damage and the cost of developing new water resources. This approach is called the sustainable economic level of leakage and gives consumers the best value for money. The company proposes leakage targets and if it fails to meet these targets then it will suffer a financial penalty which is imposed by Ofwat.

There needs to be a balance between cost and benefit. The Ouse & Adur Rivers Trust appreciate that there comes a point when reducing leakage any further would become economically unviable.	82, 89,128	Agreed. Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, it is not necessarily economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve, and we are very aware of the potential impacts on customer bills. We are exploring this with our financial regulator Ofwat, and are committed to ensuring that vulnerable groups and customers are protected.

SWS have already made commendable progress in this area in recent years. It will be cheaper to address this issue now than in the future.	54	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, it is not necessarily economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve, and we are very aware of the potential impacts on customer bills. We are exploring this with our financial regulator Ofwat, and are committed to ensuring that vulnerable groups and customers are protected.
Too much water is being wasted, and the current level of leakage is unacceptable.	20, 54, 111	We have reduced leakage by approximately 63% since privatisation and we have one of the lowest leakage levels of any water company. We will continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050.

SWS should invest in infrastructure.	16	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, it is not necessarily economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve, and we are very aware of the potential impacts on customer bills. We are exploring this with our financial regulator Ofwat, and are committed to ensuring that vulnerable groups and customers are protected.
SWS should charge other utilities and private builders for the cost of repair if they caused the leak.	38	We work closely with other utility companies in relation to works that affect our water supply system and will seek to recover costs where fault is attributable.

The respondent queried why customers have to pay more.	127	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, it is not necessarily economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve, and we are very aware of the potential impacts on customer bills. We are exploring this with our financial regulator Ofwat, and are committed to ensuring that vulnerable groups and customers are protected.
It is a criminal offence to lose water through leakage.	7	It is not a criminal offence to lose water through leakage. However we have set ambitious targets to reduce leakage levels and if we fail to meet these we will be penalised by Ofwat.
Comments from those who don't think that SWS should do more to reduce leaks, even if it pushes bills higher.		
More should be done to reduce leaks without increasing bills.	13, 104, 126	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, it is not necessarily economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50%

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
		reduction by 2050. This will require a significant investment to achieve, and we are very aware of the potential impacts on customer bills. We are exploring this with our financial regulator Ofwat, and are committed to ensuring that vulnerable groups and customers are protected.
SWS's charges should already include costs for reducing leaks.	107	Customer bills already include provision for reducing leakage. Our revised draft WRMP is increasing the commitment to achieve a higher reduction in leakage levels and this has a potential impact on customer bills. We are exploring this with our financial regulator Ofwat, and are committed to ensuring that vulnerable groups and customers are protected.
The shareholders should pay to reduce leaks.	6, 25	Your comment is noted. However, we are continuing to invest in our networks to reduce leaks. This is a key component of maintaining our assets for the current and future generations and just like the other water and wastewater assets that we maintain the costs for doing so forms part of customer bills. If the company fails its leakage target then the penalty is paid by shareholders.
Bills shouldn't be pushed up because water is a necessity.	79	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, it is not necessarily economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve, and we are very aware of the potential impacts on customer bills. We are exploring this with our financial regulator Ofwat, and are committed to ensuring that vulnerable groups and

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
		customers are protected.
SWS should find the economical rate of leakage.	22	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, it is not necessarily economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve, and we are very aware of the potential impacts on customer bills. We are exploring this with our financial regulator Ofwat, and are committed to ensuring that vulnerable groups and customers are protected.
Water that leaks surely ends up in the general underground storage.	24	You are correct, water that leaks from our network does go back into the ground. Sometimes this water continues to percolate through to the aquifer and in other circumstances the water will stay in the soil horizon. In some circumstances we abstract water from the aquifers and therefore the water is recycled.
The respondent was concerned that SWS won't let them have a water meter which means that they pay more.	97	As part of our universal metering programme we installed meters for 87 per cent of our water supply customers under our metering programme. The remaining properties were typically difficult to install a meter on without reconfiguring the internal pipework. This means that Installations in some properties are complicated, and it is not possible for us to meter all the water supplied at reasonable cost. As new technology becomes available we will continue to see if we can use it to solve these issues.

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who are not sure if SWS should do more to reduce leaks, even if it pushes bills higher.		
SWS should spend profits on reducing leaks. It is SWS's responsibility to reduce leaks. Additional costs should not be passed onto consumers for a service that SWS have a monopoly over. One respondent stated that there should be more accountability for leaks on the supplier.	8, 27, 29, 80, 95	Your comment that shareholders should pay for leakage are noted. Maintaining and replacing ageing infrastructure is a key component of our costs to ensure we continue to provide services to customers and as such we are allowed to recover these costs through our charges to customers. Although Southern Water has one of the lowest leakage rates following years of investment. We will continue to invest in our networks to replace the ageing pipes and reduce leaks in order to reduce leakage by a further 15% by 2025, 40% by 2040 and 50% by 2050. These ambitious plans are set out in our business plan which we will publish in September 2018, which if we fail attracts a financial penalty which our shareholders pay.
SWS should not because the price reviews already allow for this.	90	The draft WRMP looks ahead 50 years and considers future leakage reduction levels. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve, and we are very aware of the potential impacts on customer bills.
A cost benefit analysis is needed. One respondent queried what percentage of treated water leaks away.	84, 109	Our leakage rate is 80 litres per property per day. By 2025 we will reduce this by 15% and by 2070 this will fall much lower as we harness new technology. Our leakage rate is 80 litres per property per day. By 2025 we will reduce this by 15% and by 2070 this will fall much lower as we harness new technology.

SWS should do more in regard to leaks, such as work more efficiently.	75, 95	We currently have one of the lowest leakage levels in the industry which we have achieved by working more effectively and efficiently however to reduce leakage either further we will be replacing more mains and deploying technological solutions to help operate the networks in a more dynamic way to manage pressure fluctuations during the day. These solutions will be deployed to help us achieve the more ambitious targets over the forthcoming years as we reduce leakage by a further 15% by 2025 and 50% by 2050.
The wording of this question is disingenuous. Public perception is that SWS have done or currently do little to fix leaks or invest in the renewal of old pipe infrastructure, and that bills are high to support the shareholders.	113	We currently have one of the lowest levels of leakage per property in the water industry but we want to do more to reduce this further. In our current WRMP and Business Plan we make commitments to reduce leakage to 86 million litres of water per day. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. This will require a significant investment to achieve this and we are very aware of the potential impact on customer bills.

Question 12: Do you think it's a good idea to trade water with neighbouring water companies in a 'regional grid' as part of the Water Resources in the South East group?

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who think it's a good idea to trade water with neighbouring water companies in a "regional grid"		

Many comments were generally in support of the idea to trade water with neighbouring water companies. Some respondents stated that this should already be in practice.	4, 6, 25, 27, 79, 96, 98 125	Support for the idea of trading water with neighbouring water companies in a “regional grid” noted and welcomed. Southern Water will continue to actively work with neighbouring water companies through the Water Resources South East group to further enhance the benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable and facilitating cumulative environmental assessment (for example in respect of cumulative landscape effects). Our plan demonstrates the benefits of the WRSE group with several water trading and/or joint water resource scheme developments included in our strategies for each of our operating areas.
Unsure how practical this would be for the Isle of Wight?	6	In this draft WRMP we are proposing a broad range of interventions including leakage reductions, significant demand management and new resource developments, and water trading across our Eastern, Central and Western areas of supply.
With a provision that any available surpluses can be accurately identified.	90	Southern Water will continue to actively work with neighbouring water companies through the WRSE group to further enhance the benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable. Our plan demonstrates the benefits of the WRSE group with several water trading and/or joint water resource scheme developments included in our strategies for each of our operating areas. The environmental impacts of schemes to share water with neighbouring companies are considered within the SEA and HRA that supports our plan. This includes impacts from abstraction of water and the routeing of pipelines. We have specifically sought assurances from the source water company for each transfer included within our plan on the environmental impacts associated with the water being made available for transfer, and the degree to which any could be threatened through future licence changes.

It would seem a sensible approach if it is cost effective.	57, 106	Water trading options need to be economic in comparison to our own resources supply options and we agree that it would not benefit customers if trading options were significantly more expensive that our resource development options. (i.e. because the supplying company was charging us for the development of a new option plus we had to bear the costs of the pipeline from the neighbouring company's supply area, and also pay relatively high charges per volume of water supplied). Of course, there are other factors to consider in addition to cost, such as if the trading options provided greater resilience and this was something that customers were particularly supportive of. That being said, the company continues to discuss and explore these options with its neighbouring companies.
The ecological risks & benefits must be taken into account and ensure appropriate mitigation is taken for the long-term impacts upon the wider environment.	10, 54	Environmental impacts of schemes to share water with neighbouring companies is considered within the SEA and HRA that supports our plan. This includes impacts from abstraction of water and the routeing of pipelines. Further work has been undertaken to review pipeline routes to avoid designated sites and sensitive habitats wherever possible, and justification for any sections that cannot be rerouted have been provided in the documents supporting our revised draft WRMP, together with proposed mitigation measures to minimise any adverse effects. In line with other pipeline route options that have the potential to affect sensitive environments, Southern Water has included in its revised draft WRMP its commitment to a number of design principles as set out in Annex 6 of the revised draft WRMP (and in the SEA, HRA and WFD Reports) that will inform the detailed design of schemes.

We support the overall approach for water to be traded with neighbouring water companies, provided that responsibility is taken for the long-term impacts upon the wider environment and addressed through appropriate co-operation and mitigation. Clarification is however welcomed on whether pipeline improvements or new pipelines will be required in Fareham Borough, in particular for supporting the transfer of water from the proposed Havant Thicket reservoir. This will allow the Council to consider what environmental or other implications there could be and whether there would be any need for the safeguarding of land within the emerging Fareham Borough Local Plan.	47	The Council's support for the idea of trading water with neighbouring water companies in a "regional grid" are noted and welcomed. Environmental impacts of schemes to share water with neighbouring companies is considered within the SEA and HRA that supports our plan. This includes impacts from abstraction of water and the routeing of pipelines. Further work has been undertaken to review pipeline routes to avoid designated sites and sensitive habitats wherever possible, and justification for any sections that cannot be rerouted have been provided in the documents supporting our revised draft WRMP, together with proposed mitigation measures to minimise any adverse effects. In line with other pipeline route options that have the potential to affect sensitive environments, Southern Water has included in its revised draft WRMP its commitment to a number of design principles as set out in Annex 6 of the revised draft WRMP (and in the SEA, HRA and WFD Reports) that will inform the detailed design of schemes.
Water chemistry seems to me to be an issue when it comes to the notion of transferring river water from non-chalkstream catchments to chalkstream catchments. Hence, another area where SWS should invest to become industry-leading is developing the technical means and public/political will to connect water transfers and waste water re-use into direct supply systems. It seems to me that no company wants to the first, but one can see that one day it will become economically and socially acceptable. Why shouldn't SWS lead the charge for direct supply of transferred and recycled water?	54	The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP.

Water companies should be exploring and developing the idea of a larger network or nationwide water grid, in order to trade with water companies in wales and northern areas where there are supply surpluses. This is important as neighbouring water companies are likely to suffer from the same weather systems and also experience drought conditions.	6, 7, 27, 53, 89, 115, 125	We are committed to working as part of the Water Resources South East group, delivering benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable and facilitating cumulative environmental assessment (for example in respect of cumulative landscape effects). We are also working across regions and nationally as part of our existing networks, and looking to share experience and techniques across the industry, with government and with other key sectors.
Must not involve increased abstraction from rivers	14	Environmental impacts of schemes to share water with neighbouring companies is considered within the SEA and HRA that supports our plan. This includes impacts from abstraction of water.
Comments from those who do not think it's a good idea to trade water with neighbouring water companies in a "regional grid"		
A larger network or nationwide water grid is needed to source water from the North West. Pointless trading with neighbouring water companies as they will have the same issues.	24	We are committed to working as part of the Water Resources South East group, delivering benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable and facilitating cumulative environmental assessment (for example in respect of cumulative landscape effects). We are also working across regions and nationally as part of our existing networks, and looking to share experience and techniques across the industry, with government and with other key sectors.
To be avoided. Get to your Target100 first.	109	Our plan contains both supply side and demand side options (building on Southern Water's already very high metering levels, for example). Since the publication of the draft WRMP we have significantly increased our proposals to reduce leakage and reviewed and updated our metering and water efficiency measures. We have set ourselves the target of reducing water use to 100 litres per day by 2040 - a reduction of 25%. Our Target 100 initiative is considered to be ambitious in comparison to other water company targets, and has been welcomed by the Environment Agency and others in their responses to the WRMP. This initiative includes measures to educate and assist customers in using water more wisely.

Could lead to an unsustainable situation	118	Southern Water will continue to actively work with neighbouring water companies through the Water Resources South East group to further enhance the benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable and facilitating cumulative environmental assessment (for example in respect of cumulative landscape effects). As noted, our plan demonstrates the benefits of the WRSE group with several water trading and/or joint water resource scheme developments included in our strategies for each of our operating areas.
Comments from those who are unsure whether it's a good idea to trade water with neighbouring water companies in a "regional grid"		
A respondent raised concerns regarding the administrative costs of such collaboration and therefore this requires oversight from Regulators.	18	Southern Water works within a regulatory framework set by Government and regulated by Ofwat.
Response focused on the costs associated with pipelines and pumps.	12	We will continue to actively work with neighbouring water companies through the Water Resources South East group to further enhance the benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable and facilitating cumulative environmental assessment (for example in respect of cumulative landscape effects). Our plan demonstrates the benefits of the WRSE group with several water trading and/or joint water resource scheme developments included in our strategies for each of our operating areas. Water trading options need to be economic in comparison to our own resources supply options and we agree that it would not benefit customers if trading options were significantly more expensive that our resource development options. (i.e. because the supplying company was charging us for the development of a new option plus we had to bear the costs of the pipeline from the neighbouring company's supply area, and also pay relatively high charges per volume of water supplied). Of course, there are other factors to consider in addition to cost, such as if the trading options provided greater resilience and this was something that customers were particularly supportive of. That being said, we continue to discuss and explore these options with neighbouring companies

As long as neighbouring companies have a sustainable approach to their water sources.	5, 99	Southern Water will continue to actively work with neighbouring water companies through the WRSE group to further enhance the benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable. Our plan demonstrates the benefits of the WRSE group with several water trading and/or joint water resource scheme developments included in our strategies for each of our operating areas. The environmental impacts of schemes to share water with neighbouring companies are considered within the SEA and HRA that supports our plan. This includes impacts from abstraction of water and the routeing of pipelines. We have specifically sought assurances from the source water company for each transfer included within our plan on the environmental impacts associated with the water being made available for transfer, and the degree to which any could be threatened through future licence changes.
All regions are expected to experience same conditions so little opportunity for trading.	82	Southern Water will continue to actively work with neighbouring water companies through the Water Resources South East group to further enhance the benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable and facilitating cumulative environmental assessment (for example in respect of cumulative landscape effects). As noted, our plan demonstrates the benefits of the WRSE group with several water trading and/or joint water resource scheme developments included in our strategies for each of our operating areas.
An option in the short term, but with burgeoning development in the South and South East and the probability of more prolonged and severe droughts due to climate change, there may not be enough spare capacity to do this.	128	Southern Water will continue to actively work with neighbouring water companies through the Water Resources South East group to further enhance the benefits of joint working on all aspects of water resources management and strategic planning for the South East region, including promotion of water efficiency, the development of joint schemes or trading options as applicable and facilitating cumulative environmental assessment (for example in respect of cumulative landscape effects). As noted, our plan demonstrates the benefits of the WRSE group with several water trading and/or joint water resource scheme developments included in our strategies for each of our operating areas.

Question 13: Do you support our Catchment First approach, to work with landowners, farmers and river trusts to improve the health of rivers and groundwater sources, before investing in new solutions such as water recycling or desalination?

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who do support the Catchment First approach.		
Comments in support of Catchment First approach. One respondent stated that there is ample evidence and reason to justify investment in catchment management.	6, 54, 114	Support for our Catchment First approach noted and welcomed.
Swale Borough Council stated that a catchment approach, addressing the issues of over-abstraction and water quality, should be an essential element of the WRMP and the recommendations of the EA should be followed here. Over-abstraction is currently undermining habitats in Swale Borough and whilst river restoration will play an important role, this is a treatment for the effect, not the cause of the issue.	57	Support for our Catchment First approach noted and welcomed. We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP.
Fareham Borough Council fully support this approach as an important way of making important and worthwhile gains to improve water quality, as part of the overall package of improvement works, including water recycling.	47	Support for our Catchment First approach noted and welcomed.
The Catchment First approach needs to be done at the same time as investing in water recycling and desalination. One respondent stated that it should be done at the same time as just investing in water recycling.	7, 74, 118	Comments are noted and we will be looking to develop both desalination and water recycling options.

In drought years alternative sources of water will be required.	115	Our draft Drought Plan, published for consultation in 2018, introduces a new way of planning for droughts, which means we will need to act to tackle them less often. We plan to introduce Temporary Use Bans no more than once every 10 years on average, restrictions under drought orders no more than once every 20 years, and apply for drought orders and permits to take more water from the environment no more than once every 20 years (on average). However, these may need to be more frequent in Hampshire and the Isle of Wight until at least 2027, as we develop new water sources following changes to our licences to abstract water. Our drought plan sets out what we will do to keep supplying water during a drought. It shows: • the range and timing of actions we could take to keep providing tap water while droughts develop and worsen; and • the steps we'll take to protect the environment. The plan includes the triggers and actions we will take should there be an impending drought to reduce the amount of water being used.
It should have already been done, however this means that there is great deal of experience to utilise.	54	Comments for our Catchment First approach are noted and welcomed.
The environment is the first priority and it is important to ensure a healthy river system which supports a wide range of wildlife.	78, 96, 109	Southern Water is keen to work with Natural England and our catchment partners to identify the wider potential co-benefits of our catchment management schemes which have a primary focus on improving drinking water quality and/or enhancing environmental resilience of water bodies from which we abstract. As part of our commitment to achieving overall net environmental gain from implementation of our WRMP, we will actively work with Natural England and our catchment partners to maximise benefits for biodiversity and society as a whole from our catchment management investment, adopting ecosystem services and Natural Capital assessment approaches in line with the Government's 25 year plan for the environment and Southern Water's wider Integrated Water Cycle Management approach.

There should be mitigation works in all rivers / wetlands and aquifers that are affected by significant abstraction and not just in exceptions, such as drought measures.	54	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP.
Catchment management will have economic and environmental benefits, including on flood risk. There is a good case and policy drivers to invest in catchment management to enhance ecological and hydrological resilience.	21, 54	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP. We consider a mix of options within our WRMP including desalination, water re-use and catchment management initiatives, as well as increased leakage reduction and demand management measures.

The evidence to link catchment management with enhanced chalkstream condition and resilience, and chalk aquifer recharge is weak. More scientific evidence and NFM related research is needed.	54	Southern Water is keen to work with Natural England and our catchment partners to identify the wider potential co-benefits of our catchment management schemes which have a primary focus on improving drinking water quality and/or enhancing environmental resilience of water bodies from which we abstract. As part of our commitment to achieving overall net environmental gain from implementation of our WRMP, we will actively work with Natural England and our catchment partners to maximise benefits for biodiversity and society as a whole from our catchment management investment, adopting ecosystem services and Natural Capital assessment approaches in line with the Government's 25 year plan for the environment and Southern Water's wider Integrated Water Cycle Management approach.
Over extraction of rivers needs to be reduced.	83	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP.
Ditches and rivers need to be kept cleaned out to allow water to flow into designated holding areas.	98	The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP.

More stringent restrictions on permissible discharges into rivers should be established and enforced.	80	Southern Water is keen to work with Natural England and our catchment partners to identify the wider potential co-benefits of our catchment management schemes which have a primary focus on improving drinking water quality and/or enhancing environmental resilience of water bodies from which we abstract. As part of our commitment to achieving overall net environmental gain from implementation of our WRMP, we will actively work with Natural England and our catchment partners to maximise benefits for biodiversity and society as a whole from our catchment management investment, adopting ecosystem services and Natural Capital assessment approaches in line with the Government's 25 year plan for the environment and Southern Water's wider Integrated Water Cycle Management approach.
Comments from those who do not support the Catchment First approach.		
Several comments, including from the Ouse & Adur Rivers Trust, stated that the Catchment First approach should be done alongside desalination and water recycling. One respondent stated that this should have already been done. Another respondent stated that desalination should be given lower priority.	24, 53, 90, 125, 128	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, we face some significant deficits that require us to look towards a mix of options. Our modelling undertaken on the draft WRMP indicates that under all potential futures we need to investigate in AMP 7, and then build in AMP8 a large desalination plant or other high tech solution (e.g. water re-use). Our re-modelling for the revised draft WRMP confirms that a high tech solution will be required, in addition to increased metering, improved sharing of water both with neighbouring companies and within our own supply areas, and other solutions. Our plans now include detailed investigations of solutions, to ensure they can be consented and delivered rapidly to meet the challenges proposed by licence changes in Hampshire. We have identified in our revised draft WRMP both our preferred solution, but also alternatives that will be progressed should our preferred plan not be deliverable. We will investigate and promote our preferred and alternative schemes in parallel.
The Catchment First approach should be done alongside water recycling.	33	Comments are noted and we will be looking to develop water recycling options.
Water recycling is the sustainable option and the way forward in implementing a circular economy in the water industry.	87	Support for water recycling (from wastewater) having a role to play in securing water supplies for the future noted and welcomed.

All commercial enterprises, such as farms, should be legally required to recycle as much water as possible and have measures to contain polluted water so that it does not run into natural sources. The respondent would rather Defra legislate and execute things such as this because it affects their bill if the utility company do it.	27	Southern Water has undertaken extensive investigation of potential water recycling or reuse options during the last decade, both in terms of the potential locations where such schemes may be appropriate, the potential customer issues relating to recycling water for reuse, and the technical and environmental challenges that such options pose (including physiochemical challenges). We have completed sufficient investigation and assessment work to provide the confidence that such schemes are acceptable in principle, but further more detailed investigations and assessments will need to be undertaken as part of the preparation and determination of necessary consents.
Comments from those who are not sure if they support the Catchment First approach.		
Ensuring the health of rivers and groundwater sources must involve: • Abstracting less water. One respondent stated that in drought conditions, no water should be abstracted from the Hampshire catchment areas. • Reducing wastewater and leaks • Educating the public • Capacity to bring on new supplies.	81, 85, 112	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP. We are committed to meeting Ofwat's leakage reduction target of 15% by the end of the next AMP (2024/25). In addition, and since the publication of the draft WRMP, following recommendations in the recently published National Infrastructure Commission report, we have now increased this commitment in the revised draft WRMP. We will seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. We have updated our WRMP to include the commitment to 50% reduction in current levels of leakage by 2050. This is contained within the Technical Overview document, and further details in WRMP Appendix C to Annex 6.
Landowners should have their own focus to improve the environment.	20	Support for our Catchment First approach noted and welcomed.

It depends what is the most cost-effective option.	126	In terms of efficiency and innovation, we need to embrace new and better ways of doing things. We accept that we need to embrace new technologies where they deliver solutions that are cost effective and benefit the environment.
Water recycling is an equally valid approach.	84	Support for water recycling (from wastewater) having a role to play in securing water supplies for the future noted and welcomed.
Not possible to answer the question, with one respondent stating that it was vague.	14, 25	There is additional information on our Catchment First Approach within the WRMP Technical Overview and supporting annexes. There are signposts to these in our Non-Technical Summary.

Question 14: Do you think our approach to provide water in Hampshire and the Isle of Wight is the right one?

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who do think the approach to provide water in Hampshire and the Isle of Wight is the right one.		
Comments generally in support of the approach to provide water in Hampshire and the Isle of Wight. Two respondents stated that this is subject to their previous comments.	7, 24, 29, 82	Support for our approach to provide water in Hampshire and the Isle of Wight noted and welcomed.
The respondent agrees with SWS's Strategy A.	54	The support for our approach to Strategy A for the Western Area is welcomed.
Wastewater re-use, desalination and a reservoir are sustainable when water is most needed and the risk of environmental damage is great. In the interim periods, it is mostly right that SWS are investing in innovation and efficiencies.	54	Our plan contains both supply side and demand side options (building on Southern Water's already very high metering levels, for example). Since the publication of the draft WRMP we have significantly increased our proposals to reduce leakage and reviewed and updated our metering and water efficiency measures. These will contribute towards meeting our future challenges, however, we face some very significant deficits that cannot be met by demand management options alone - they require development of large scale supply side schemes.

There is insufficient emphasis on environmental aspects and encouraging wiser use of water.	74	Our Target 100 initiative is considered to be ambitious in comparison to other water company targets, and has been welcomed by the Environment Agency and others in their responses to the WRMP. The Target 100 extends across all homes, not just new home, and our initial plans have four key strands: 1. Installation of smart metering technology: We are currently undertaking trials of devices that can read meters and send the reading to the customers using their Wifi. If the trial proves successful, we plan to roll out 100,000 devices over AMP7. 2. Home visits: We currently undertake water efficiency home visits, which has a high uptake rate and can result in up to 10% further savings on top of that achieved through metering. We will continue with this programme and combine it with leak detection. 3. Proactive customer contact: We are looking to develop tools and systems to identify any significant increase in consumption. We can then proactively engage with customers at an early stage to determine if the increase is due to change in circumstances or may be a leak. This will allow us to specifically target customers or geographical areas for water efficiency messages during periods of high demand. 4. Incentivising water efficiency behaviour: Our research has shown little appetite for seasonal tariffs and so as an alternative, we are looking to reward customers for conserving water. The first scheme will be rolled out in Hampshire in partnership with Eastleigh Borough Council. The scheme will offer rewards to residents for recycling waste and reducing water consumption on a monthly basis. The scheme will be introduced in the Central area towards the end of AMP7 and in the Eastern area during AMP8. To achieve Target 100 we will also need to continue our work with developers and local planning authorities to actively promote water efficiency. We also agree that changes to Building Regulations will greatly assist in achieving Target 100. It is agreed that there is potential with new homes to deliver lower pcc in new homes and have a number of initiatives seeking to achieve this. We have included additional explanation on our Target 100 proposals in the revised draft WRMP, as set out in Annexes:9,10,11

Repairing leaks would probably resolve the issues.	96	We are committed to meeting Ofwat's leakage reduction target of 15% by the end of the next AMP (2024/25). In addition, and since the publication of the draft WRMP, following recommendations in the recently published National Infrastructure Commission report, we have now increased this commitment in the revised draft WRMP. We will seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. We have updated our WRMP to include the commitment to 50% reduction in current levels of leakage by 2050. This is contained within the Technical Overview document, and WRMP Annexes: 9,10&11.
It is always right to look after the planet.	109	Comments are noted and welcomed.
Fareham Borough Council's response only relates to that provided within the context of Fareham Borough whereby it's noted that each individual Local Authority along with other partner organisations may have particular issues to address on the water related infrastructure works or projects that are proposed. For context, the Borough Council is currently developing a new Local Plan setting out how it is able to meet ambitious local housing targets, as a result of an increasing local population and a growing local economy. The Council will therefore need to continue to work in partnership with infrastructure providers, such as Southern Water, in order to achieve such targets, and as such, the Council support the approach that Southern Water are advocating towards water provision and reducing impact on the environment.	47	Support for our approach to provide water in Hampshire and the Isle of Wight noted and welcomed. We welcome collaborative working that will ensure that appropriate infrastructure can be planned and delivered in a timely manner to support growth. We look forward to working with other partners and stakeholders on the details of these schemes
Comment from a respondent outside of the Hampshire and Isle of Wight supply area or who did not specify a geographic location.	23	N/A
Comments from those who don't think the approach to provide water in Hampshire and the Isle of Wight is the right one.		

More abstraction from rivers is not the answer. One respondent stated that water should not be abstracted from chalk catchment areas in droughts. Reservoirs in non-chalk areas should be considered instead, and SWS should focus on people cutting down water usage.	14, 112	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP.
The respondent agrees with water recycling and desalination.	117	Support for our approach to water recycling and desalination in the Hampshire and Isle of Wight noted and welcomed.
Comments from those who are not sure if the approach to provide water in Hampshire and the Isle of Wight is the right one.		
Desalination should be a higher priority.	20	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, we face some significant deficits that require us to look towards a mix of options. Our modelling undertaken on the draft WRMP indicates that under all potential futures we need to investigate in AMP 7, and then build in AMP8 a large desalination plant or other high tech solution (e.g. water re-use). Our re-modelling for the revised draft WRMP confirms that a high tech solution will be required, in addition to increased metering, improved sharing of water both with neighbouring companies and within our own supply areas, and other solutions. Our plans now include detailed investigations of solutions, to ensure they can be consented and delivered rapidly to meet the challenges proposed by licence changes in Hampshire. We have identified in our revised draft WRMP both our preferred solution, but also alternatives that will be progressed should our preferred plan not be deliverable. We will investigate and promote our preferred and alternative schemes in parallel.

The environment and wildlife should take priority, and it is important that they are protected. Evidence is needed that SWS is taking steps to protect chalk streams.	83, 115	The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP.
SWS need to store more water.	79	The water planning process requires us to provide a secure supply of water and consider a range of supply side and demand management options that protect the environment and represent best value for customers. The optioneering process takes into account a range of financial, environmental and social considerations in determining both the range of options but also when these options are needed. This process has not identified the need for reservoirs beyond those already developed. The longer term forecasts for the draft WRMP identified that we may need to create a reservoir in the Lower Test Valley through the conversion of an existing lake but this would not be needed until after 2045, with other options being preferable in cost and environmental terms in supplying water. We have revised this modelling for the revised Draft WRMP, and with the increased commitment to leakage reduction and other demand management measures, the proposed reservoir is not now identified as being required during the Plan period. However, we recognise that water storage within south Hampshire may have a role to play in protecting supplies to customers during different potential drought events, and that storage could increase the overall resilience of our water resources in this area. As a result, we are committing to investigating all potential storage options within south Hampshire during the initial part of AMP7 (the 2020-2025) period), to enable feasible options to be potentially incorporated within our next WRMP.

Target 100 may be difficult to achieve on the Isle of Wight because of the older demographic.	20	The Isle of Wight is already 95% metered through Southern Water's previous metering programme. Where additional metering is economic it has been incorporated into the revised draft WRMP, including increasing metering elsewhere in Hampshire from 87% to 92% of households. Our Target 100 proposals will be targeted to reduce water usage across metered and unmetered households and our forecasts show that water usage is predicted to reduce in unmetered households on the Isle of Wight.
The Isle of Wight should be put first over Hampshire mainland.	95	Our area of supply is divided into 14 water resource zones (WRZs) as shown on Figure 3.1 included in the WRMP Technical Overview. The WRZs are drawn to include large groupings of customers who all have the same risk of loss of supplies. The 14 WRZs are then amalgamated into three larger, sub-regional supply areas: Western, Central and Eastern areas. This approach helps us to plan to meet the demand for water for customers within these WRZs both individually, and collectively at a sub-regional level. We have changed the way we have drawn our WRZs since our last WRMP, to better represent the sources of water supplying the individual WRZs and the network connectivity with them. This increases the number of WRZs, and so means we can plan at a finer level of detail. We can now highlight smaller areas which may be at risk of experiencing shortages of water, and then plan schemes to address this, such as transferring water from another WRZ. Our WRZs face a number of pressures, some common to all WRZs and some unique to that specific area. This can include existing water resources becoming vulnerable as a result of climate change or licence changes due to environmental legislation. In addition, some geographic areas are predicted to experience significant growth over the coming decades, increasing the demand for water. Section 4 of this document summarises the challenges we face.
It depends which approaches to providing water this refers to.	10	There is additional information on our approach to provide water in Hampshire and the Isle of Wight within the WRMP Technical Overview and supporting annexes. There are signposts to these in our Non-Technical Summary.
The respondent stated that they aren't qualified to comment.	6	There is additional information on our approach to provide water in Hampshire and the Isle of Wight within the WRMP Technical Overview and supporting annexes. There are signposts to these in our Non-Technical Summary.

Comments from respondents outside of the Hampshire and Isle of Wight supply area or who did not specify a geographic location.	18, 25, 57, 86, 90, 91, 102, 119, 126, 127, 128	N/A

Question 15: Do you think our approach to provide water in Sussex is the right one?

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who do think the approach to provide water in Sussex is the right one.		
The respondent agrees subject to the comments they made in response to previous questions.	90	Support for our approach to provide water in Sussex noted and welcomed.
Comments from respondents outside of the Sussex supply area or who did not specify a geographic location.	7, 114	N/A
Comments from those who don't think the approach to provide water in Sussex is the right one.		
The Ouse & Adur Rivers Trust stated that there is too much too much reliance on borehole abstraction. There have been problems with saline intrusion into the aquifers of the chalk bloc in the past. In our opinion effluent re-use and more desalination should be used in preference.	128	The strategy presented in our dWRMP comprises a mix of options that are considered to provide a secure supply of water, protect the environment and represent best value for customers. The optioneering process takes into account a range of financial, environmental and social considerations in determining both the range of options but also when these options are needed. Support for desalination or other innovations is noted.

It is very unambitious and short-sighted. Do not understand why there is no plan for direct wastewater reuse, but there are plans for increased groundwater abstraction.	33	Support for water recycling (from wastewater) having a role to play in securing water supplies for the future noted and welcomed. Southern Water has undertaken extensive investigation of potential water recycling or reuse options during the last decade, both in terms of the potential locations where such schemes may be appropriate, the potential customer issues relating to recycling water for reuse, and the technical and environmental challenges that such options pose (including physiochemical challenges). We have completed sufficient investigation and assessment work to provide the confidence that such schemes are acceptable in principle, but further more detailed investigations and assessments will need to be undertaken as part of the preparation and determination of necessary consents. We look forward to working with the Trust and other partners and stakeholders on the details of these schemes.
Comments from respondents outside of the Sussex supply area or who did not specify a geographic location.	18, 25, 112	N/A
Comments from those who are not sure if the approach to provide water in Sussex is the right one.		
Disagree with the plan to build a desalination plant at Shoreham Harbour because it is expensive and environmentally challenging and would support the review of other options first.	119	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.
Comments from respondents outside of the Sussex supply area or who did not specify a geographic location.	24, 57, 82, 115, 125, 126	N/A

Question 16: Do you think our approach to provide water in Kent is the right one?

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who do think the approach to provide water in Kent is the right one.		
Comment from a respondent outside of the Kent supply area or who did not specify a geographic location.	7	N/A
Comments from those who don't think the approach to provide water in Kent is the right one.		
The respondent referred to the comments they made in response to the previous questions.	25	N/A
Comments from those who are not sure if the approach to provide water in Kent is the right one.		
Swale Borough Council stated that they will leave the EA to respond to this issue however, they wish to make the following comments: The supply of safe water to the future population of Swale is of critical importance and the draft Water Resources Management Plan reassures its readers that it has taken account of the growing population and housing growth. However, it would be reassuring to have confirmation that the dWRMP19 has used the housing and employment figures in the adopted Swale Borough Local Plan 2017. Furthermore, the draft WRMP makes no reference to the Government's forthcoming standard methodology for calculating housing numbers and it would be reassuring to know that these potential significant increases to housing figures are accounted for in Southern Water's plans. We look forward to future dialogue with Southern Water on the issue of water resources, water quality and waste water treatment.	57	The Councils comments are welcomed and noted. Our WRMP forecasts population and housing growth over a 50 year period. We forecast growth primarily based on housing projections by Local Authorities in our supply area. We also look at demographic trends and use micro-component analysis (assessing expected water use within the home) to forecast domestic demand. This feeds into our supply-demand balance, which determines how much water we need to supply in the future. Our WRMP then sets out how we will supply that water and meet future demand. We recognise that we need to have effective, integrated water infrastructure that is fit for purpose to meet the needs of a growing populations. We need to work with government, local authorities and developers to ensure we know when development is coming forward and also ensure that new homes are water efficient.
Comments from respondents outside of the Kent supply area or who did not specify a geographic location.	24, 54, 115, 125, 128	N/A

Question 17: How important is it to you that we use renewable energy (by buying or developing it) to power our water network?

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who think it is important that SWS use renewable energy to power the water network.		
Many comments from respondents who generally think it is important that SWS use renewable energy to power the water network. One respondent queried if it is not done already.	7, 13, 90, 109, 112, 117	Support for our use of renewable energy to power the water network noted and welcomed.
One respondent stated that they support SWS's ambitions set out in the Water Futures in the South East – towards 2050.	54	Support for Water Futures in the South East – towards 2050 noted and welcomed.
Fareham Borough Council strongly support the use of renewable energy for powering the water network, as long as this can be guaranteed, due to the environmental benefits that renewable energy has over energy derived from fossil fuels. Fareham Borough Council strongly recommend that Southern Water investigate the potential to develop its own source of renewable energy, potentially from sewage sludge.	47	Support for our use of renewable energy to power the water network noted and welcomed. In terms of innovation we need to embrace new technologies where they deliver solutions that are cost effective and benefit the environment. This will extend beyond, but include renewable energy. We look forward to working with other partners and stakeholders on the details of these schemes.

Swale Borough Council referred to their comments for Question 16.	57	The Councils comments are welcomed and noted. Our WRMP forecasts population and housing growth over a 50 year period. We forecast growth primarily based on housing projections by Local Authorities in our supply area. We also look at demographic trends and use micro-component analysis (assessing expected water use within the home) to forecast domestic demand. This feeds into our supply-demand balance, which determines how much water we need to supply in the future. Our WRMP then sets out how we will supply that water and meet future demand. We recognise that we need to have effective, integrated water infrastructure that is fit for purpose to meet the needs of a growing populations. We need to work with government, local authorities and developers to ensure we know when development is coming forward and also ensure that new homes are water efficient.
Larger interests, such as water companies, should lead the way on this. One respondent stated that this will stimulate the renewables market, making it cheaper and more efficient.	5, 20, 54, 122	Southern Water is targeting its use of renewable energy and has included proposals within its emerging Business Plan on this area. Southern Water has also published it carbon policy on its website.
Long term sustainability is essential. One respondent stated that sustainable energy sources are critical to help reduce greenhouse gas emissions.	20, 84, 106, 122	Support for our use of renewable energy noted and welcomed. We will be actively looking to innovate in the way we secure power for our water supply network, potentially increasing our reliance on renewable sources of energy.
SWS should not invest in its own sources but take up contracts with others.	82	In terms of innovation we need to embrace new technologies where they deliver solutions that are cost effective and benefit the environment. This will extend beyond, but include renewable energy. We look forward to working with other partners and stakeholders on the details of these schemes.
Improving the link between water and energy is critical for a more resilient future in terms of energy and consumption	125	We will be actively looking to innovate in the way we secure power for our water supply network, potentially increasing our reliance on renewable sources of energy.

Suggestions including water power, solar energy and dams.	6, 79	In terms of innovation we need to embrace new technologies where they deliver solutions that are cost effective and benefit the environment. This will extend beyond, but include renewable energy. We look forward to working with other partners and stakeholders on the details of these schemes.
As long as it does not impact adversely on the environment.	6	The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP.
Where it is economically viable to do so.	84, 119	The strategy presented in our dWRMP comprises a mix of options that are considered to provide a secure supply of water, protect the environment and represent best value for customers. In terms of innovation we need to embrace new technologies where they deliver solutions that are cost effective and benefit the environment. This will extend beyond, but include renewable energy.
All future projects should use renewable energy and would be prepared for bills to increase to fund this.	27	Support for our use of renewable energy noted and welcomed. We will be actively looking to innovate in the way we secure power for our water supply network, potentially increasing our reliance on renewable sources of energy.
It is more important to look after supplies and protect the aquatic environment.	85	The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP.
Comments from those who don't think it is important that SWS use renewable energy to power the water network.		

The respondent queried why SWS would not use renewables.	24	Comments noted. Southern Water is targeting its use of renewable energy and has included proposals within its emerging Business Plan on this area. Southern Water has also published it carbon policy on its website.
Renewable energy should be developed but not bought. SWS should invest in more efficient treatment.	2	Southern Water is targeting its use of renewable energy and has included proposals within its emerging Business Plan on this area. Southern Water has also published it carbon policy on its website.
Sewage Treatment Works have the potential to produce energy.	87	Support for our use of renewable energy to power the water network noted and welcomed.
Renewable energy has been put on the UK by Europe.	25	Following the 2016 EU referendum result, the UK is currently working towards leaving the EU in March 2019. Leaving the EU brings uncertainty, in particular for our demand forecasts, but it could also provide an opportunity for us to shape the future value of the water in the UK. For the time being EU legislation is being incorporated into UK law, and it will be some time before we will know if any changes are then made to the many EU Regulations that we are subject to. The implications of any changes would be incorporated into our next, or subsequent, WRMP. The scale of potential licence changes we are facing is driving a significant amount of investment in planned new resources. Whilst we have been investigating these schemes as part of the preparation of this WRMP, we will need to complete extensive environmental assessments and secure planning and other permissions before we can build and operate them. Within Hampshire in particular, where a large number of schemes need to be developed by 2027, and also potentially in the Central area, there are risks and challenges to us being able to secure all of the necessary permissions and to build all of the new resources by that date. We will need to continue to work closely with our regulators, local planning authorities and other stakeholders in the planning and delivery of these schemes to respond to licence changes and environmental conditions.
Comments from those who are not sure how important that SWS use renewable energy to power the water network.		
It is important but not a vital.	33	Comments noted.

It should be the most cost-effective option, not just the green option.	89	In terms of efficiency and innovation, we need to embrace new and better ways of doing things. We accept that we need to embrace new technologies where they deliver solutions that are cost effective and benefit the environment.
One respondent queried what is the most cost-effective and sustainable option.	126	In terms of efficiency and innovation, we need to embrace new and better ways of doing things. We accept that we need to embrace new technologies where they deliver solutions that are cost effective and benefit the environment.

Question 18: Would you like to get involved in developing our solutions to provide water, for example, community schemes to save water, developing water recycling and desalination options or in any other way?

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who would like to get involved in developing SWS' solutions to provide water.		
Comments from respondents stating that they would like to get involved. One respondent stated that they would promote suitable schemes within their community.	2, 18, 25, 82, 115, 117	Comments noted and welcomed. We will ensure that everyone who responds to our consultation is kept up to date with progress, and will publish regular updates on our website. We will keep respondent's update on how opportunities to be involved with developing our solutions to provide water in the future.
Swale Borough Council provided an email address and asked SWS to contact them.	57	SBC's comments are welcomed and noted.
Fareham Borough Council would welcome further engagement with Southern Water on the potential to develop renewable energy or water recycling schemes, either as part of its existing infrastructure in the Borough (Peel Common Wastewater Treatment Works) or through opportunities to develop more localised infrastructure as part of large-scale housing or employment developments.	47	In terms of innovation we need to embrace new technologies where they deliver solutions that are cost effective and benefit the environment. This will extend beyond, but include renewable energy. We look forward to working with other partners and stakeholders on the details of these schemes. Our WRMP does not consider improvements at Peel Common WwTW as this is a wastewater matter and therefore not a consideration within a WRMP. Necessary investment in new wastewater treatment infrastructure is secured through our Business Planning process, which is separate from but on a similar timescale to our WRMP preparation.

Ouse & Adur Rivers Trust is already involved in SWS's stakeholder panels.	128	We look forward to working with other partners and stakeholders on the details of these schemes.
The respondent queried what this would involve.	114	We will ensure that everyone who responds to our consultation is kept up to date with progress, and will publish regular updates on our website.
The Hampshire & Isle of Wight Trust and Gosport & Fareham Friends of the Earth look to SWS to take a strong lead on managing water sensibly.	109	Comments are welcomed and noted.
Developing water recycling solutions is the only sustainable option.	87	Support for water recycling (from wastewater) having a role to play in securing water supplies for the future noted and welcomed.
Comments from those who would not like to get involved in developing SWS's solutions to provide water.		
Do not have time to get involved.	7	Comment noted. We will ensure that everyone who responds to our consultation is kept up to date with progress, and will publish regular updates on our website.
Comments from those who are not sure if they would like to get involved in developing SWS's solutions to provide water.		
Do not currently have time to get involved.	21, 90, 98	N/A
It depends on time commitment.	84	We will ensure that everyone who responds to our consultation is kept up to date with progress, and will publish regular updates on our website.
It is not clear what is meant here. SWS are paid to provide services and should not offload responsibilities onto volunteers.	33	We will ensure that everyone who responds to our consultation is kept up to date with progress, and will publish regular updates on our website.
The respondent stated that their water usage is already low, and it is up to others to do the same.	24	N/A
It is difficult as an individual.	85	Comment noted. We will ensure that everyone who responds to our consultation is kept up to date with progress, and will publish regular updates on our website.

Question 19: Did you find the information you needed in our consultation? What else would you like to know?

Themes and issues raised in representations	SWS Revised No.	Company consideration and response
Comments from those who did find everything they needed in SWS's consultation.		
There were good documents online.	20	Support towards the information included in the consultation materials is welcomed and noted.
It is good to see this consultation.	7	Support towards the information included in the consultation materials is welcomed and noted.
It would be helpful if the questions and answers fitted into the boxes on the questionnaire.	111	Comments on the approach to our consultation are is welcomed and noted.
The respondents asked that they are kept updated with future progress / proposals / consultations.	82, 89	We will ensure that everyone who responds to our consultation is kept up to date with progress, and will publish regular updates on our website.

Leak reduction should be the top priority and there should be at least a 75% reduction within the next 5 years. Hose pipes should only be permitted for one hour in the evenings at all times. The plan does not seem to protect wildlife.	91	Managing leakage is an important part of our water resources strategy. A low level of leakage is desirable, both for the environment, and because it defers the need to invest in new resources which would otherwise be required to meet increases in demand over time. However, as noted, it is not necessary economic to reduce leakage to very low levels, because to do so could involve very large additional costs for relatively small savings of water. Our approach, and that of our regulators, is to set leakage at a level that is optimal for our customers and society as a whole. Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050. Our draft Drought Plan, published for consultation in 2018, introduces a new way of planning for droughts, which means we will need to act to tackle them less often. We plan to introduce Temporary Use Bans no more than once every 10 years on average, restrictions under drought orders no more than once every 20 years, and apply for drought orders and permits to take more water from the environment no more than once every 20 years (on average). These may need to be more frequent in Hampshire and the Isle of Wight until at least 2027, as we develop new water sources following changes to our licences to abstract water. The draft Drought Plan includes triggers and actions should we experience a drought that may include hosepipe bans. It is not considered that outside of drought conditions that restrictions are required although we will continue to work with customers to educate them about using water wisely. The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP.

The respondent was supportive and complementary of many elements of SWS's work, including the following: • Strategy A in the WRMP • stochastic approach to understanding water availability to inform water resources planning • Target 100 is an outstanding ambition • historic approach to universal metering • risk-based approach to multiple futures is industry leading • thrust to innovate and increase renewable energy generation • some communicators who relate well to large parts of society • support the Blueprint for Water ambition	54	Support for our work noted and welcomed.

The respondent set out shortcomings of SWS's work, including the following: • lack of ambition compared to other water companies in regard to leakage. The respondent queried why this is. • SWS should go further to achieve the Blueprint for Water ambitions. • trust issues amongst sections of local stakeholders, particularly in relation to chalk streams. SWS need to engage better, for example by examining the philosophical approach to chalkstreams and their community. • SWS must acquire a degree of empathy for the natural asset they rely upon and with stakeholders who own, use, manage and love it. • SWS need to employ communicators from the local community who know the local area, share empathy, and who have a position of trust and technical credibility. • SWS should adopt a more transparent approach to share a programme of works, and report on progress with stakeholders. • no clarity on what Strategy A will be or exactly when it will be completed. SWS need a more precise and SMART programme of actions or a narrow set of possible futures, in order for people to understand what is being proposed, where and when and to be able to hold SWS accountable. • Catchment First is not integrated into the WRMP. The respondent queried if the board are fully committed to maximising the full potential of the initiative • extensive package of monitoring and mitigation of its Drought Permit / Orders in the Test and Itchen is welcomed. But SWS has not overtly developed the scope of works through the Catchment First project, instead implementation and delivery has been externalised. It is not clear if SWS 'own' the measures or are proud of what will be done. SWS should make a deal of work already committed to and highlight and emphasise the weight the Board gives to this initiative.	54	Southern Water already has one of the lowest leakage rates in the industry. This is because we have already reduced leakage levels by over 60% from the estimated leakage level at the point of privatisation. Over the next seven years we are seeking to reduce leakage by a further 15% from our current target level and 50% by 2050. We believe that this will mean that Southern Water will still have one of the lowest leakage rates of all of the companies. The blueprint for water sets out four outcomes and 17 priorities, which are focussed on the catchments. We have set out comments on their four outcomes below: 1) Protect our environment: As set out in our draft WRMP the vast majority of the investment we set out is driven by protecting the environment and undertaking catchment management as we play our part in improving the environment. We note that in order to achieve the WFD status other parties such as landowners; river trusts and other organisations also have a part to play in helping achieve the WFD objectives; 2) Stop Pollution: These measures are not set out in the WRMP as it is specifically sets out how we are going to address the water resources position in the future. Our business plan sets out the significant areas of investment that we will be delivering as part of our ongoing commitment to a resilient water future. 3) Use water wisely: As set out in our draft WRMP we have already delivered a universal metering programme and our customers have some of the lowest levels of consumption. We are putting forward an ambitious programme of helping our customers use less water in the future as part of our T100 water efficiency programme. These combined plans, coupled with leakage reductions mean that the amount of water we put into supply today is approximately where we were in the early 70's.

		4) Keep our rivers flowing: As set out in our dWRMP the significant majority of the investment going forward in the future is to reduce abstraction in order to protect the environment. We note that this will play a part in achieving good status but there are a number of actions on other parties in order to achieve good status on the rivers. We have already shown the impact of including environmental valuations in a WRMP as set out in our Water Scarcity policy published in 2012. We have recently undertaken a natural capital valuation technique for all of our options in the WRMP. We will build on this work for our next WRMP
The majority of work is expressed in terms of financial costs / savings or units of water volume. SWS understates and undervalues wider outcomes such as environmental benefits that may also benefit society. SWS could do more to protect the environment, including the following: • accept and celebrate duty to restore biodiversity and the conditions of protected sites to favourable conditions. SWS should contribute to restoration of the aquatic environment and assess the ecological risks for all abstraction licences, including consideration of the risk of full licences against the need to restore biodiversity • embrace and become an industry leading proponent of an ecosystem services approach and ecosystem service assessments, and to recognise and value chalk streams / aquifers for their cultural capital • more overtly recognise and celebrate ecological outcomes and benefits, and wider benefits to society, from a healthy aquatic environment • the Catchment First initiative has a low profile. The respondent queried if it is properly resourced and its scope is sufficiently wide and defined. It should be rolled out to all catchments. • SWS need to adopt a WFD no deterioration approach.	54	See response above, also: Following the Inquiry, a Section 20 Operating Agreement is now in place between the Environment Agency and Southern Water. The outcome of the Inquiry means that some sustainability reductions will be brought in with immediate effect once approved by the Secretary of State. This means that we will have insufficient supplies of water available in our Western area to supply our customers in all but normal environmental conditions, until alternative long term secure supplies are provided. As soon as conditions become drier than normal, we will in the short term, have to impose temporary use bans and apply for Drought Orders to allow us to continue to abstract water below the conditions imposed in the new licences. Where Drought Orders are applied for, we will implement river restoration and habitat mitigation measures in potentially affected rivers in combination with Drought Orders. Our supplies to customers will remain at risk during the AMP7 period and into AMP8 until sufficient supplies are delivered. The extent of the deficit is such that we need to deliver large new resources and these will take time to deliver. We will seek to deliver these in a timely manner and in consultation with key stakeholders
Comments from those who didn't find everything they needed in SWS's consultation.		

Swale Borough Council stated that the consultation does lack some detail, for example, on abstraction and how Target 100 will be achieved.	57	We have included additional explanation in our revised draft WRMP on the Target 100 initiative. It will incorporate a number of individual schemes in different parts of our supply area. The detail of these schemes is included within the options appraisal for the WRMP (see Appendix C to Annex 6 of the revised draft WRMP), and we will now look to work with partner organisations over the next few years in developing our detailed programmes of work for implementation in AMP7 and beyond.

Fareham Borough Council stated that it's important that Southern Water factors in the findings of the PUSH Integrated Water Management Study in taking account of consultation responses received to this consultation. This is will be considered by the PUSH Joint Committee on 5th June. Additional reference is suggested to working with LPAs to ensure water efficiency policies are included in emerging local plans. This would be in accordance with Revised Draft NPPF Paragraph 148. We are concerned that no reference is made to improvements that are required to the Peel Common Wastewater Treatment Works (WTW). The PUSH Integrated Water Management Study (to be published on 25 May 2018) identifies that Peel Common WTW is likely to require improvements by 2025 in order to cope with the quantity and quality of wastewater deriving from planned housing in the Borough, such as at Welborne and the 475 homes proposed in proximity to the treatment works. It is further noted that sewer capacity upgrades are likely to be required in the Borough, to facilitate the transfer of greater wastewater volumes to Peel Common WTW and that the water catchment receiving outfall from Peel Common has existing nitrate problems which require additional measures to be addressed at Peel Common now. This is an important issue which should be referenced against the backdrop of an increased housing requirement on Fareham Borough arising from the Government's proposed standard method for calculating housing need. As a final point, it would be helpful if a broad identification of the costs associated with the proposals is provided and how it is anticipated the noted projects will be funded, particularly for major infrastructure items. This will help to provide certainty to bill payers, local authorities and developers.	47	The Councils comments are welcomed and noted. We have set ourselves the target of reducing water use to 100 litres per day by 2040 - a reduction of 25% by 2040. Some of our metered households achieve this level of water use already. To achieve this across the board, we will need Building Regulations and Local Plan policy support, and we look to work closely with the Council and other partners in innovating and leading the way in ensuring that we can achieve this target. Environmental impacts of schemes to share water with neighbouring companies is considered within the SEA and HRA that supports our plan. This includes impacts from abstraction of water and the routeing of pipelines. Since publication of the draft WRMP, further work has been undertaken to review pipeline routes to avoid designated sites and sensitive habitats wherever possible, and justification for any sections that cannot be rerouted have been provided, together with proposed mitigation measures to minimise any adverse effects. In respect of our proposed resource options, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design. We will also engage widely with Local Planning Authorities and consider the need for any safeguarding of land. The potential cost of securing water for the next 50 years across the whole of our water supply area (Eastern, Central and Western) is £1.6 billion. Our aim is to balance bills paid by customers with timely investment in the future. Our Business Plan, approved by Ofwat, sets out how much we need to spend to maintain and improve services for customers for the first five years of options in our WRMP. Our next Business Plan is due to be published in September 2018. Our WRMP does not consider improvements at Peel Common WwTW as this is a wastewater matter and therefore not a consideration within a WRMP. Necessary investment in new wastewater treatment infrastructure is secured through our Business Planning process, which is separate from but on a similar timescale to our WRMP preparation.

It is too general.	14	Our WRMP sets out how we propose to ensure that there is a secure and reliable supply of water for our customers over a 50 year planning period. We identify a number of improvements and new developments in the WRMP to ensure water supplies are available. Plans are published every five years and we seek to deliver those interventions that are set out in the WRMP over the next five years. As set out in Annex 6, a Real Options approach has been used to inform the decision making for the draft WRMP strategy. This approach solves the supply demand deficits simultaneously for seven different 'states of the world' across up to five different 'futures' or 'branches'. • 'States of the world': which represent a snapshot of different climatic conditions and intra-annual pressures on water resources and demands, from normal year through to severe and extreme droughts, looking at periods when water supplies are at their minimum, and at periods of peak demand for water during summer months. • Different possible 'futures' modelled by different 'branches': these represent a plausible set of future supply demand balances for which different solutions may be most appropriate. The use of different futures in the Real Options approach effectively recognises that the future is not certain, and so the method tries to identify how solutions may change through time in the face of different possible future water resource pressures. The approach therefore tries to ensure that the plan is resilient against a range of uncertain, yet possible, futures that the company may face.
More needed on environmental issues.	74	The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP.

More needed about desalination including costs, benefits, breakthroughs and impacts.	13, 122	We will, as part desalination proposals investigate the potential for the use of renewables for power, and we have also through work to date, been investigating the potential benefits of co-locating desalination plants close to existing power stations where thermal benefits from the use of cooling water, and the potential to mix and dilute hypersaline discharges has been investigated. We have presented what we consider to be a balanced plan. It contains both supply side and demand side options (building on Southern Water's already very high metering levels, for example). However, the company faces some very significant deficits that cannot be met by demand management options alone - they require development of large scale supply side schemes. The modelling we undertake to identify our preferred strategies is based on identifying the least cost solution. We do however take into account other criteria to ensure our proposals represent the optimum balance of financial, environmental and social costs. We also take into account risks, uncertainties and social costs. The potential impact on bill payers is therefore an important consideration. We accept that some of the new technology that we will need to use in the future, such as desalination, can be expensive to build and operate. It may be the case that we will only need to operate such plants in dry or a very dry year, and so we are designing them to be used at a much lower capacity for most of the time. In this way we can keep ongoing operational costs to a minimum.

More needed about fracking.	122	The comments requesting further information regarding fracking. Unfortunately, this lies outside the scope of the draft WRMP19 consultation. The purpose of the consultation is to consider feedback on how we plan to secure water supplies for the future in the South East. The draft WRMP19 and the revised draft WRMP19 set out the importance of enhancing environmental resilience. We have committed to a range of measures to enhance environmental resilience. Where potential adverse effects on the environment have been identified in respect of our WRMP strategy, we have committed to implementation of mitigation (and in some case compensatory) measures to minimise the effects and seek overall net environmental gain from implementation of our WRMP. We will continue to work closely with the Environment Agency and Natural England in order to deliver the commitments within our WRMP.
Clarification needed if the leaks mentioned refer to existing leaks that SWS are planning on fixing, or whether it refers to upgrading the network to reduce future leaks.	27	Our draft WRMP set out a combined strategy of further active leakage control in the short term followed by mains replacement programmes in the medium to longer term to ensure that we continue our drive down on leakage by 15% by 2025. We have now increased this commitment in the revised draft WRMP, to seek to achieve a 40% reduction in our current leakage levels by 2040 and a 50% reduction by 2050.

Inadequate public information about the impact of housing development, which has to be sought under the Environment Information Regulations. It would be more transparent if water companies shared their responses to planning applications.	19	Our WRMP forecasts population and housing growth over a 50 year period. We forecast growth primarily based on housing projections by Local Authorities in our supply area. We also look at demographic trends and use micro-component analysis (assessing expected water use within the home) to forecast domestic demand. This feeds into our supply-demand balance, which determines how much water we need to supply in the future. Our WRMP then sets out how we will supply that water and meet future demand. We recognise that we need to have effective, integrated water infrastructure that is fit for purpose to meet the needs of a growing populations. We need to work with government, local authorities and developers to ensure we know when development is coming forward and also ensure that new homes are water efficient. We do not accept that new development leads to an increase in drought measures for consumers and that water companies penalise customers in areas with housing development. New development sometimes does require development to connect into the existing supply but our forward planning means that water is available for this purpose.
The respondent queried why SWS consider it ok to increase abstraction rates when there should have been better planning in meeting forecasts for an increased population.	24	We have been an active partner in supporting delivery of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme and more recently the Water Framework Directive (WFD) programme. Over the last 20 years we have undertaken investigations and implemented schemes to improve the environmental sustainability of our abstraction base, including the revocation and reduction of a number of licences. We have taken potential further sustainability reductions and the impact of any abstractions in developing the preferred strategies into account. This is reflected in the HRA, SEA and WFD assessments that support our WRMP. We supply water to an area that is officially identified as an area of significant population and economic growth. Our forecasts indicate that population within our supply area is expected to grow to over 3 million people by 2045; representing a 22% increase. We need to manage the increased demand for water and work with government, local authorities and developers to make new homes more water efficient.

More needed about how the proposals will be implemented, and timescales and costs.	2, 86	We will ensure that everyone who responds to our consultation is kept up to date with progress, and will publish regular updates on our website.
More needed about how to get water rates down.	2	
Would like to hear SWS's criticisms to its approaches.	5	We will ensure that everyone who responds to our consultation is kept up to date with progress, and will publish regular updates on our website.
The WRMP should be presented to SWS employees with more detail of the sites and sources that will have the work done on.	125	Our plan contains both supply side and demand side options (building on our already very high metering levels, for example). However, the company faces some significant deficits that require us to look towards a mix of options in order to ensure resilience within our water supply network. Our modelling undertaken on the draft WRMP indicates that a number of desalination plants will be required. Once a plan is published, we will need to undertake additional more detailed feasibility investigations and modelling, environmental assessment, preparation of planning documentation, and detailed design.
The respondent referred to all of their comments responding to other questions.	25	N/A
Comments from those who are not sure if they found everything they needed in SWS's consultation.		

Not enough on personal responsibilities and SWS's vision for the future. The area is too large to grasp and engage with.	126	Our WRMP sets out how we propose to ensure that there is a secure and reliable supply of water for our customers over a 50 year planning period. We identify a number of improvements and new developments in the WRMP to ensure water supplies are available. Plans are published every five years and we seek to deliver those interventions that are set out in the WRMP over the next five years. As set out in Annex 6, a Real Options approach has been used to inform the decision making for the draft WRMP strategy. This approach solves the supply demand deficits simultaneously for seven different 'states of the world' across up to five different 'futures' or 'branches'. • 'States of the world': which represent a snapshot of different climatic conditions and intra-annual pressures on water resources and demands, from normal year through to severe and extreme droughts, looking at periods when water supplies are at their minimum, and at periods of peak demand for water during summer months. • Different possible 'futures' modelled by different 'branches': these represent a plausible set of future supply demand balances for which different solutions may be most appropriate. The use of different futures in the Real Options approach effectively recognises that the future is not certain, and so the method tries to identify how solutions may change through time in the face of different possible future water resource pressures. The approach therefore tries to ensure that the plan is resilient against a range of uncertain, yet possible, futures that the company may face.
One respondent queried how SWS are committed to Sustainable Development Goal 6.	75	We will continue to work closely with the Environment Agency and Natural England in order to deliver the commitments within our WRMP.
Need to feel sure that any future plans do not adversely affect the environment and wildlife.	108	We will continue to work closely with the Environment Agency and Natural England in order to deliver the commitments within our WRMP.
Did not look at it in detail.	109	N/A
Need to do some more research.	115	N/A