Hampshire Water Transfer and Water Recycling Project

Consultation Report Appendix B – Non-Statutory Public Consultation 2021

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from Southern Water

Appendices

B.1 Stakeholder list 1
B.2 Notification email 5
B.3 Letters 8
B.4 Press release 16
B.5 Advertorial 20
B.6 Brochure 22
B.7 Feedback form 69
B.8 Virtual room 74
B.9 Consultation Feedback Report 76

B.1 Stakeholder list

Appendix B: List of Stakeholders

Statutory consultees

Prescribed and Statutory Consultees	
Cranborne Chase AONB	The office of road and rail
Chichester Harbour AoNB	Dorset AoNB
Isle of White AoNB	North Wessex Downs AoNB
Surrey Hills AoNB	Civil Aviation Authority
Canal and River Trust	Transport Focus
Local Authorities	Hampshire Fire and Rescue Authority
Parish Councils	Hampshire County Council - Highways
Natural England	The Environment Agency (drainage)
Public Health England	Hampshire Prepared Local Resilience Forum
The Coal Authority	Hampshire Police and Crime Commissioner
The Crown Estate	Hampshire Search and Rescue
The Disabled Persons Transport Advisory Committee	Highways England
The Environment Agency	The Environment Agency (waste)
The Equality and Human Rights Commission	Ofwat
The Forestry Commission	Trinity House
Historic England	Secretary of State for Business, Energy and Industrial Strategy
Homes England	Neighbourhood Forums tbc
Joint Nature Conservation Committee	Hampshire County Council (LLFA)
MMO	Secretary of State for Business, Energy and Industrial Strategy
The Maritime and Coastguard Agency	DEFRA
The office of Nuclear Regulation (the ONR)	The relevant public gas transporter(s)
The relevant electricity distributor(s) with CPO Powers	Highways England Historical Railways Estate
Ministry of Defence	National Rail Infrastructure Ltd
The National Health Service commissioning board	NHS West Hampshire Clinical Commissioning Group
The relevant water and sewage undertaker(s)	Consumer Council for Water
The Food Standards Agency	Associated British Ports
Southern Inshore fisheries and conservation authority	OFGEM
Health and Safety Executive	Network Rail
Royal Mail Group	
Local authorities within WfL:H Western Area	
Hampshire County Council	Dorset County Council

Wiltshire County Council;	West Sussex County Council
New Forest National Park Authority;	Gosport Borough Council
Southampton City Council;	Fareham Borough Council
Isle of Wight Council;	Bournemouth, Christchurch and Poole Council
Eastleigh Borough Council;	Havant Borough Council
Test Valley Borough Council;	Portsmouth City Council
Winchester City Council;	East Hampshire District Council
Basingstoke and Dean District Council.	Arun District Council
Waverley Borough Council	South Downs National Park Authority
New Forest District Council	Surrey County Council
Chichester District Council	
Parish Councils	
Fawley Parish Council	Hordle Parish Council
Ashurst & Colbury Parish Council	Hyde Parish Council
Beaulieu Parish Council	Hythe & Dibden Parish Council
Boldre Parish Council	Lymington & Pennington Town Council
Bramshaw Parish Council	Lyndhurst Parish Council
Bransgore Parish Council	Marchwood Parish Council
Breamore Parish Council	Martin Parish Council
Brockenhurst Parish Council	Milford-on-Sea Parish Council
Burley Parish Council	Minstead Parish Council
Copythorne Parish Council	Netley Marsh Parish Council
Damerham Parish Council	New Milton Town Council
Denny Lodge Parish Council	Ringwood Town Council
East Boldre Parish Council	Rockbourne Parish Council
Ellingham, Harbridge & Ibsley Parish Council	Sandleheath Parish Council
Exbury & Lepe Parish Council	Sopley Parish Council
Fordingbridge Town Council	Sway Parish Council
Godshill Parish Council	Totton & Eling Town Council
Hale Parish Council	Whitsbury Parish Council
Woodgreen Parish Council	

Non-statutory Consultees

Potential users, interest groups and local community groups	
Hampshire and IoW Wildlife Trust	Drinking Water Inspectorate
Wessex Chalk Stream and Rivers Trust	Solent Forum
Test and Itchen Association	RAPID (Ofwat, EA, DWI)
Salmon and Trout Conservation	Influencers
Angling Trust	Local MPs
Countryside Landowners Association	Politicians within the Western Area Local Authorities
Hampshire Ornithological Society	Water Resources South East

RSPB	West Country Water Resources
CPRE Hampshire	Regional groups (where applicable)
Upper Itchen Initiative	Water supplier affected by supply System
Bourne Rivulet Group	Any water companies with bulk supply or shared resource agreements with
English Heritage	Neighbouring water companies
Sustrans	Customer challenge groups or their equivalent
The Woodland Trust	Any other groups the development is likely to affect
National Trust	Any potential water supplier, company or third party Southern Water may wish to trade with
Local catchment partnerships	National Infrastructure Commission (PINS)
Water UK	Local Nature Partnerships (where applicable)
Water retailers for business	Any companies that Southern Water has an agreement with such as a NAV or water retailers
Hampshire Chamber of Commerce	Solent LEP
Partnership for Urban South Hampshire	National Farmers' Union
Senior Steering Group, Regional Co-ordination group and modelling advisory group established as part of the National Framework for Water Resources	

B.2 Notification email

Water for Life – Hampshire
Launch of non-statutory public consultation – prescribed consultee email, pre-launch
February 4, 2021

Good afternoon,

I'm writing to let you know that on Monday, February 8, Southern Water will start a six-week non-statutory public consultation on our *Water for Life – Hampshire* programme.

Due to the Covid-19 pandemic, we are adopting a "digital first" approach to our consultation.

On Monday, a virtual room will go live online where people can interact with films, animations, information boards and a brochure detailing the programme and the opportunities to help shape the plans.

This room will be accessible at www.southernwater.co.uk/water-for-life-hampshire where information on the programme can already be found.

I will contact you again on Monday with more details and to confirm the link is live.

Yours sincerely,

[redacted], Senior Stakeholder Manager
[redacted]

Water for Life – Hampshire
Launch of non-statutory public consultation – prescribed consultee email, post-launch
February 8, 2021

Good morning,

I'm writing to inform you that our consultation on plans to pump hundreds of millions of pounds into Hampshire and the Isle of Wight to help keep rivers and taps flowing during a drought is now live.

Our *Water for Life – Hampshire* programme will revolutionise the way we source, treat and supply water across Hampshire and the Isle of Wight over the next decade.

Due to the Covid-19 pandemic, we are adopting a "digital first" approach to our consultation and have launched a virtual room online where people can interact with films, animations, information boards and brochures detailing the programme and the opportunities to help shape the plans.

The virtual room is now live on this webpage www.southernwater.co.uk/water-for-life-hampshire

The consultation runs for six weeks, until March 23. All responses must be sent by midnight on March 23. There will be further opportunities to talk to us and help shape our plans as we continue to develop them.

We are seeking planning consent for our central plan – a desalination plant in the Fawley area which will produce up to 75 million litres of water per day that will be used to supply water to the Hampshire region during periods of drought.

The consultation also outlines the alternatives we are exploring as a back-up in case desalination proves undeliverable – ensuring customers' supplies are maintained.

If one of the alternatives is developed in the future, it would be subject to further development and consultation on that proposal. These include alternative sizes of desalination plant, different configurations of water recycling plants and a possible additional bulk transfer of water from the proposed Havant Thicket Reservoir, which Southern Water is co-developing with Portsmouth Water.

We welcome your view to help us shape our plans. The online feedback form, available as part of the consultation process, is an ideal way of doing this.

If you would like to make a more detailed submission, please contact me directly.

Yours sincerely,

[redacted], Senior Stakeholder Manager
[redacted]

B.3 Letters

B

from Southern Water

Date

Dear ,

Water for Life - Hampshire

I am writing further to previous correspondence in relation to our Water for Life – Hampshire programme, to inform you that our consultation on plans to pump hundreds of millions of pounds into Hampshire and the Isle of Wight to help keep rivers and taps flowing during a drought is now live. As explained previously, we have identified possible corridors for a pipeline running from the desalination plant in Fawley to our water treatment works at Testwood where the water will then be transferred into our existing supply network, and we believe that you own and/or occupy land within one of these corridors.

Due to the Covid-19 pandemic, we are adopting a “digital first” approach to our consultation and have launched a virtual room online where people can interact with films, animations, information boards and brochures detailing the programme and the opportunities to help shape the plans.

The virtual room is now live on this webpage www.southernwater.co.uk/water-for-life-hampshire

The consultation runs for six weeks, until March 23. All responses must be sent by midnight on March 23. There will be further opportunities to talk to us and help shape our plans as we continue to develop them.

We are seeking planning consent for our Base Case – a desalination plant in the Fawley area which will produce up to 75 million litres of water per day that will be used to supply water to the Hampshire region during periods of drought.

The consultation also outlines the alternatives we are exploring as a back-up in case desalination proves undeliverable – ensuring customers’ supplies are maintained.

If one of the alternatives is developed in the future, it would be subject to further development and consultation on that proposal. These include alternative sizes of desalination plant, different configurations of water recycling plants and a possible additional bulk transfer of water from the proposed Havant Thicket Reservoir, which Southern Water is co-developing with Portsmouth Water.

We welcome your view to help us shape our plans. The online feedback form, available as part of the consultation process, is an ideal way of doing this.

Southern Water, Southern House, Yeoman Road, Worthing BN13 3NX
southernwater.co.uk

If you are unable to access the website, please write to Water for Life – Hampshire, PO Box 5215 to request a written copy, or large print version, of the consultation brochure and feedback form.

Yours [sincerely/faithfully]

[redacted]

Senior Project Manager

from Southern Water

Date

To whom it may concern

Water for Life - Hampshire

We're consulting on our plans to help keep rivers and taps flowing in Hampshire.

Our Water for Life – Hampshire programme will revolutionise the way we source, treat and supply water across the county – helping protect the environment while catering for a growing population.

Our Base Case is a desalination plant in the Fawley area of Hampshire which will produce up to 75 million litres of water per day that will be used to supply water to the Hampshire region during periods of drought. We have identified possible corridors for a pipeline running from the desalination plant in Fawley to our water treatment works at Testwood where the water will then be transferred into our existing supply network. The land on which this notice is placed is within one of these corridors.

We are also developing a number of alternatives as back-up solutions in case desalination cannot be delivered – this will ensure we can always meet our obligation to supply water to our customers.

The consultation started on February 8 and runs for six weeks, until March 23. All responses must be sent by midnight on March 23.

There will be further opportunities to talk to us and help shape our plans as we continue to develop them.

You can find out more about our proposals and help shape our plans by visiting **www.southernwater.co.uk/water-for-life-hampshire** where you'll find an online engagement room, the consultation brochure and feedback form.

If you are unable to access the website, please write to Water for Life – Hampshire, PO Box 5215 to request a written copy, or large print version, of the consultation brochure and feedback form.

If you are the owner of this land we would be grateful if you could contact our Agents Fisher German on 01227 477 877.

Southern Water, Southern House, Yeoman Road, Worthing BN13 3NX
southernwater.co.uk

from Southern Water

Date

Dear ,

Water for Life - Hampshire

I'm writing to inform you that our consultation on plans to pump hundreds of millions of pounds into Hampshire and the Isle of Wight to help keep rivers and taps flowing during a drought is now live.

Our Water for Life – Hampshire programme will revolutionise the way we source, treat and supply water across Hampshire and the Isle of Wight over the next decade.

Due to the Covid-19 pandemic, we are adopting a "digital first" approach to our consultation and have launched a virtual room online where people can interact with films, animations, information boards and brochures detailing the programme and the opportunities to help shape the plans.

The virtual room is now live on this webpage www.southernwater.co.uk/water-for-life-hampshire

The consultation runs for six weeks, until March 23. All responses must be sent by midnight on March 23. There will be further opportunities to talk to us and help shape our plans as we continue to develop them.

We are seeking planning consent for our Base Case– a desalination plant in the Fawley area which will produce up to 75 million litres of water per day that will be used to supply water to the Hampshire region during periods of drought.

The consultation also outlines the alternatives we are exploring as a back-up in case desalination proves undeliverable – ensuring customers' supplies are maintained.

If one of the alternatives is developed in the future, it would be subject to further development and consultation on that proposal. These include alternative sizes of desalination plant, different configurations of water recycling plants and a possible additional bulk transfer of water from the proposed Havant Thicket Reservoir, which Southern Water is co-developing with Portsmouth Water.

Why are we writing to you?

We have identified possible corridors for a pipeline running from the desalination plant in Fawley to our existing water treatment works at Testwood where the water will then be transferred into our existing supply network, and we believe that you own and/or occupy land within one of these corridors.

We welcome your view to help us shape our plans. The online feedback form, available as part of the consultation process, is an ideal way of doing this.

If you are unable to access the website, please write to Water for Life – Hampshire, PO Box 5215 to request a written copy, or large print version, of the consultation brochure and feedback form.

Yours [sincerely/faithfully],

[redacted]

Senior Project Manager

from Southern Water

Date

Dear ,

Water for Life - Hampshire

I am writing further to previous correspondence in relation to our Water for Life – Hampshire programme, to inform you that our consultation on plans to pump hundreds of millions of pounds into Hampshire and the Isle of Wight to help keep rivers and taps flowing during a drought is now live. We have identified possible corridors for a pipeline running from the desalination plant in Fawley to our water treatment works at Testwood where the water will then be transferred into our existing supply network, and we believe that you own and/or occupy land within one or more of these corridors. These may include additional titles over and above those identified on the plan attached to the letter from Fisher German dated XXXXX.

Due to the Covid-19 pandemic, we are adopting a “digital first” approach to our consultation and have launched a virtual room online where people can interact with films, animations, information boards and brochures detailing the programme and the opportunities to help shape the plans.

The virtual room is now live on this webpage www.southernwater.co.uk/water-for-life-hampshire

The consultation runs for six weeks, until March 23. All responses must be sent by midnight on March 23. There will be further opportunities to talk to us and help shape our plans as we continue to develop them.

We are seeking planning consent for our Base Case – a desalination plant in the Fawley area which will produce up to 75 million litres of water per day that will be used to supply water to the Hampshire region during periods of drought.

The consultation also outlines the alternatives we are exploring as a back-up in case desalination proves undeliverable – ensuring customers’ supplies are maintained.

If one of the alternatives is developed in the future, it would be subject to further development and consultation on that proposal. These include alternative sizes of desalination plant, different configurations of water recycling plants and a possible additional bulk transfer of water from the proposed Havant Thicket Reservoir, which Southern Water is co-developing with Portsmouth Water.

We welcome your view to help us shape our plans. The online feedback form, available as part of the consultation process, is an ideal way of doing this.

Southern Water, Southern House, Yeoman Road, Worthing BN13 3NX
southernwater.co.uk

If you are unable to access the website, please write to Water for Life – Hampshire, PO Box 5215 to request a written copy, or large print version, of the consultation brochure and feedback form.

Yours [sincerely/faithfully],

Southern Water, Southern House, Yeoman Road, Worthing BN13 3NX
southernwater.co.uk

B.4 Press release

Water for Life – Hampshire
Launch of non-statutory public consultation press release
February 8, 2021

Southern Water unveils major plans to help keep Hampshire's rivers and taps flowing

Southern Water is consulting on plans to pump hundreds of millions of pounds into Hampshire and the Isle of Wight to help keep rivers and taps flowing during a drought.

The company's *Water for Life – Hampshire* programme will revolutionise the way it sources, treats and supplies water across Hampshire and the Isle of Wight over the next decade.

Due to the Covid-19 pandemic, the company is adopting a "digital first" approach to its consultation and has launched a virtual room online where people can interact with films, animations, information boards and a brochure detailing the programme and the opportunities to help shape the plans.

The virtual room can be reached via www.southernwater.co.uk/water-for-life-hampshire

The company is seeking planning consent for its central plan – a desalination plant in the Fawley area which will produce up to 75 million litres of water per day that will be used to supply water to the Hampshire region during periods of drought.

The consultation also outlines the alternatives the company is exploring as a back-up in case desalination proves undeliverable – ensuring customers' supplies are maintained.

If one of the alternatives is developed in the future, it would be subject to further development and consultation on that proposal. These include alternative sizes of desalination plant, different configurations of water recycling plants and a possible additional bulk transfer of water from the proposed Havant Thicket Reservoir, which Southern Water is co-developing with Portsmouth Water.

As part of its wider *Water for Life – Hampshire* programme, Southern Water is also:

- Planning to install up to 125km of new water mains to link up its key sites and bring in supplies from neighbouring companies as well as building additional storage
- Reducing leakage (by 15% by 2025, 40% by 2040 and 50% by 2050)
- Increasing water efficiency by supporting and incentivising people to reduce their use to 100 litres a day (from an average of 129) by 2040
- Improving environmental resilience and water quality by working with farmers, businesses and environmental groups to protect and restore local water sources

Ian McAulay, Southern Water CEO, said: "Water is a precious, and increasingly scarce, resource and we all need to take steps to protect and preserve it.

"*Water for Life – Hampshire* is our commitment to go to even greater lengths to strike the balance between protecting the environment and serving a growing population.

"It's also a fantastic opportunity for us to work with environmental groups, local authorities, industry, land owners and others to deliver our stated vision of "Delivering a resilient Water Future for the South East" and, in particular, Hampshire and the Isle of Wight.

"This wide-ranging programme is the first of its kind in the UK and gives us an opportunity to help redefine how we think about water in a more holistic and sustainable way and create examples for the future.

"The result will be a resilient supply of water for customers and the environment, whatever the weather."

The improvements will secure future water supplies for customers and help protect two of the county's major rivers – the Test and the Itchen.

These rivers are among the finest examples of chalk streams in the world – rare ecosystems that support an abundance of wildlife such as salmon, trout, crayfish and dragonflies.

The Test and Itchen, and their associated underground aquifers, are also the main source of water for more than 700,000 people as well as being a source for a number of private abstractions.

Water for Life – Hampshire is Southern Water's pledge to take significantly less water from the rivers to further protect wildlife during dry weather and drought – a commitment that leaves the company with a shortfall of up to 190 million litres of water a day during a 1-in-200 year drought.

Southern Water's current Water Resources Management Plan (WRMP) plans to make up this shortfall by 2027 and the company is investing hundreds of millions of pounds to ensure it continues to protect the environment while securing reliable, wholesome water for its customers.

It is also planning for further expected reductions which, during a drought, could lead an increased loss of water required to supply Hampshire and the Isle of Wight.

Southern Water is continuing to develop its plans for a desalination plant in the Solent, as outlined in its WRMP and is in the process of preparing its application for planning consent.

The company is engaging with local authorities and landowners on the plans and working to find a suitable site for the facility, which will be capable of supplying up to 75 million litres of water a day.

Southern Water is working hard to address the shortfall in Hampshire between now and 2027.

In the meantime, the area will be at risk of water shortages and the company may need to apply for drought permits or drought orders to ensure customers' supplies are maintained.

Drought permits and drought orders allow the company to continue to take water during dry weather but mean restrictions on use, previously managed under hosepipe bans, may be needed.

To offset the potential environmental impact of drought permits and drought orders, Southern Water has embarked on a £9.5 million suite of environmental monitoring and improvement projects that are being developed and delivered by local environmental organisations.

Activities already agreed include:

- Monitoring of wildlife including fish, breeding birds and Southern Damselfly
- Working with Bristol Zoo to breed White Clawed Crayfish for wild release
- Restoring rivers to more natural states by removing man-made barriers

To find out more about the programme and engage in the online consultation, visit www.southernwater.co.uk/water-for-life-hampshire

If you are unable to access the website, please write to *Water for Life – Hampshire, PO Box 5215* (no stamp required) to request a written copy, or large print version, of the consultation brochure and feedback form.

Ends

Notes to Editors:

The consultation starts on February 8 and runs for six weeks, until March 23. All responses must be sent by midnight on March 23.

The major infrastructure projects in the *Water for Life – Hampshire* programme are being overseen by an advisory board comprising the main water industry regulators - Ofwat, the Environment Agency and the Drinking Water Inspectorate.

The group, called the Regulators' Alliance for Progressing Infrastructure Development (RAPID) is being advised by Natural England.

RAPID is overseeing the development of strategic water resources projects for several water companies across the country to help them identify and develop the optimal regional and inter-regional solutions.

Contact: Southern Water team – mediateam@southernwater.co.uk

B.5 Advertorial

We're consulting on our plans to help keep rivers and taps flowing in Hampshire.

Our Water for Life – Hampshire programme will revolutionise the way we source, treat and supply water across the county – helping protect the environment while catering for a growing population.

Central to our plans is a desalination plant in the Fawley area of Hampshire which will produce up to 75 million litres of water per day that will be used to supply water to the Hampshire region during periods of drought.

We are also developing a number of alternatives as back-up solutions in case desalination cannot be delivered – this will ensure we can always meet our obligation to supply water to our customers.

The consultation started on February 8 and runs for six weeks, until March 23. All responses must be sent by midnight on March 23.

There will be further opportunities to talk to us and help shape our plans as we continue to develop them.

You can find out more about our proposals and help shape our plans by visiting:

www.southernwater.co.uk/water-for-life-hampshire

where you'll find an online engagement room, the consultation brochure and feedback form.

If you are unable to access the website, please write to: **Water for Life – Hampshire, PO Box 5215** (no stamp required) to request a written copy, or large print version, of the consultation brochure and feedback form.

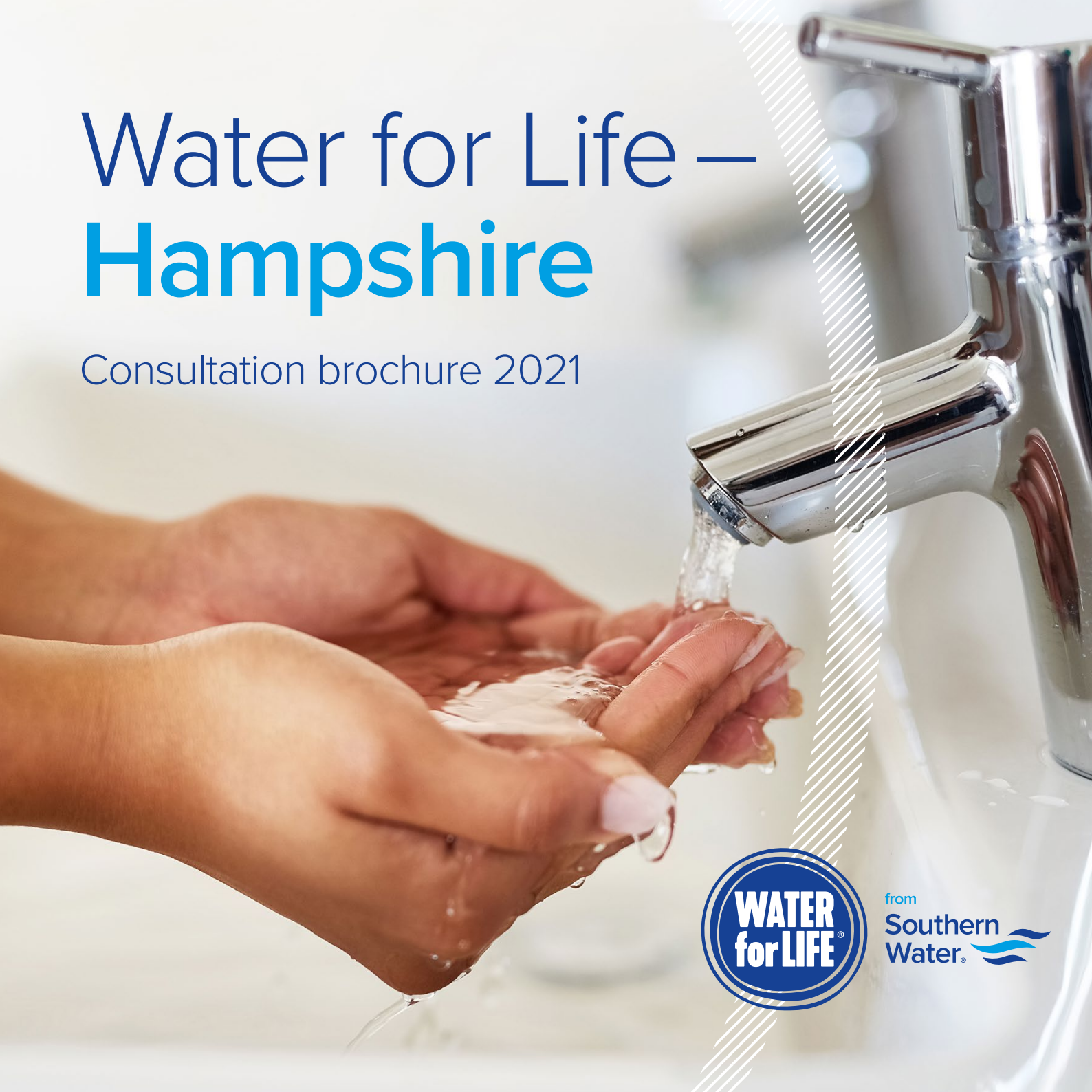
WATER for LIFE®

from Southern Water

B.6 Brochure

Water for Life – **Hampshire**

Consultation brochure 2021



from Southern Water

Contents

Foreword from Ian McAulay 3

About Southern Water 4-7

About Water for Life – Hampshire 8-9

About this consulation 10-11

The story so far 12-15

Our proposals 16-28

Environmental context 29-33

What our proposals mean for you 34-41

Next steps 42-43

Glossary 44-46

Foreword from Ian McAulay, our CEO

Thank you for taking the time to engage with our Water for Life – Hampshire programme.

It's our response to the combined impacts of population growth and climate change and will help keep the county's taps and rivers running for us and future generations.

In our consultation documents you'll see how we plan to transform the way we source, treat and supply water across Hampshire and the Isle of Wight over the next decade. You'll also see the opportunities for you to contribute your views to help us shape our plans.

Water is a precious, and increasingly scarce, resource for people and wildlife. It's essential that we strike the right balance between protecting the environment and maintaining supplies for customers.

In Hampshire, that balance means taking less water from the sensitive chalk stream habitats of the Test and Itchen rivers and more from sustainable, resilient sources instead.

People need water and it's our duty to supply it, but as custodians of the environment it's also our responsibility to do so in a way that protects the natural world and also enhances it where possible.

We are one of the best performing water companies for leakage, but our plans include going even further and reducing leakage by 15% by 2025, 40% by 2040 and 50% by 2050. We are also improving water efficiency by helping people reduce their use to below 100 litres a day.

We are also creating a new network of water mains across Hampshire to increase resilience.

Investigating and delivering new sustainable, resilient sources of water comes at a cost. Treatment techniques such as desalination and water recycling are already used to great effect elsewhere in the world and are capable of providing an almost limitless supply of water.

They are expensive to build and run, compared with traditional abstractions, but if you consider the environmental and natural capital evaluations, these technologies allow us to do more than just take from the environment – they allow us to give something back.

This ethos of added value, of environmental net gain, is central to the vision and commitment we have outlined in Water for Life – Hampshire.

It's our promise to work with regulators, customers, environmental groups, local authorities, industry, landowners and others to create a resilient water future for the South East. But more importantly, it is about performing our duties in a way that benefits people and our planet and I welcome you in joining us on this journey.

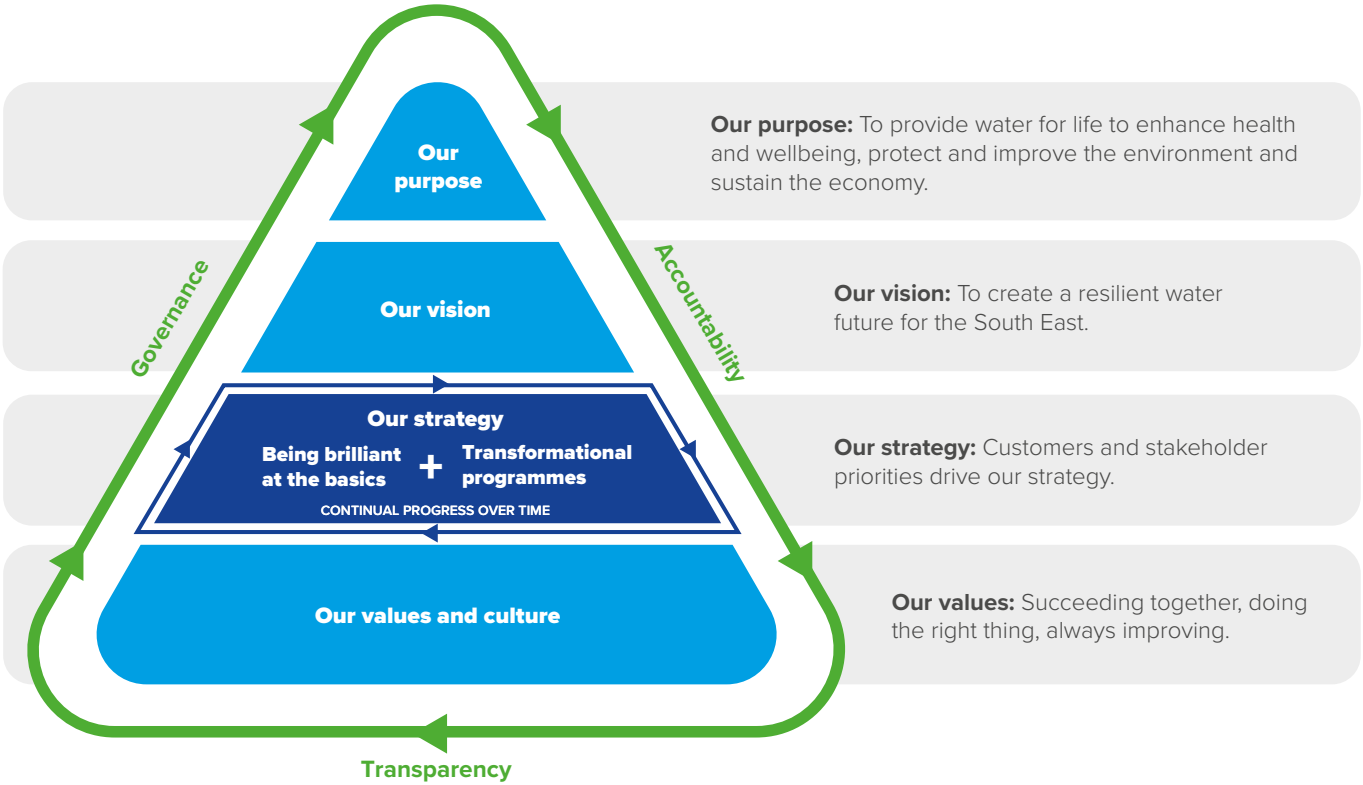
About Southern Water

Southern Water supplies water and wastewater services to over four million customers in the South East.

Our operations cover Hampshire, Kent, Isle of Wight and East and West Sussex, traversing over 700 miles of coastline, national parks, forests and Areas of Outstanding Natural Beauty.


Dartford
Gravesend
Chatham
Gillingham
Isle of Sheppey
Herne Bay
Ramsgate
SUTTON & EAST SURREY WATER
Sevenoaks
Maidstone
Canterbury
Faversham
Deal
Tonbridge
SOUTH EAST WATER
KENT
Dover
Ashford
Tunbridge Wells
Folkestone
Crawley
Weir Wood
Bewl Water
AFFINITY WATER
EAST SUSSEX
Haywards Heath
New Romney
Darwell
Burgess Hill
SOUTH EAST WATER
Powdermill
Lydd
Hastings
Lewes
Bexhill
Hove
Brighton
Eastbourne
Water supply and wastewater treatment areas
Wastewater treatment areas only
Water supply only areas
Designated bathing waters
Reservoirs

About Southern Water



Our vision, values and purpose

As a water undertaker, we must meet our statutory duties to prepare and maintain a Water Resources Management Plan (WRMP) under section 37A of the Water Industry Act 1991. Our WRMP must set out how we will manage and develop water resources to meet our supply obligation for at least the next 25 years, and it must be renewed at least every five years.

Our WRMP 2019 sets out our Preferred Strategy to meet supply obligations (see: southernwater.co.uk/our-story/water-resources-planning/water-resources-management-plan-2020-70) and we are using all best endeavours to deliver on this strategy for our Western Area in Hampshire. Delivering new water resource infrastructure in Hampshire is part of the Preferred Strategy.

Our Business Plan 2020–25 underpins our approach (see: southernwater.co.uk/our-story/our-plans-2020-25/our-business-plan-2020-25).

About Southern Water

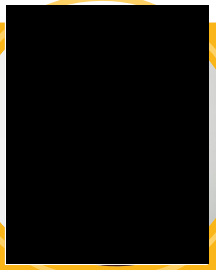
Protecting the environment

The environment is at the heart of everything we do and we recognise that, as a water company, we are reliant on the natural environment to deliver our essential services to our customers.

We are proud to play a leading role as a custodian of the environment and we are working hard to ensure that protecting and enhancing the natural world remains central to all our decision making. We know that investing in more natural and sustainable solutions can deliver wider benefits for wildlife, customers and communities. These include reducing flood risk, reducing our carbon footprint, improving biodiversity and improving health and wellbeing through access to nature.

Over the next five years we plan to invest around £800 million in our environment programme. This will help us improve nearly 400km of our region's rivers and many of its bathing waters. We're working with a range of partners to ensure that we're doing the right thing now and for future generations.

We, and other water companies in the UK, have also committed to become carbon neutral by 2030. This promise was made under the industry body Water UK's Net Zero commitment and is part of our planning and solution development for Water for Life – Hampshire.



"We put the environment at the heart of our business because we, and our customers, want to protect and enhance the natural world around us. Our climate is changing and it's vitally important that we take the right decisions now to ensure that in the future our children and grandchildren can enjoy both a fantastic environment and a clean and plentiful water supply."

Toby Willison, Director of Environment and Corporate Affairs

Chalk stream

About Water for Life – Hampshire

The challenge we face

Hampshire faces water shortages. New water sources are necessary to keep local taps and rivers flowing today and in the future. Our Water for Life – Hampshire programme will create greater resilience, especially during dry weather and drought.

Our world is changing – the twin pressures of more extreme weather events and a growing population are stretching our finite natural resources, including water. This challenge is felt strongly in the water-stressed South East where the population continues to grow.

In Hampshire, a key challenge we face is ensuring protection of the environment while maintaining and improving the water supply. This follows new rules over how much water we can take from the county's two main rivers – the Test and Itchen. We have entered into an agreement with the Environment Agency, committing to implement the changes it has made to our abstraction licences – rules governing how much water we can take from the environment to supply to the public – by 2027 in order to ensure the rivers are further protected. Reductions to our abstractions mean we now have a shortfall of about 190 million litres of water a day in south Hampshire during a 1-in-200-year drought event, putting the population at risk of water shortage when the weather is dry. Further licence changes are expected which, during a drought, could lead to the loss of more water required to supply Hampshire and the Isle of Wight.

This means we need to find new sources of water in order to protect these sensitive habitats. The Test and Itchen are among the finest examples of chalk streams in the world – rare ecosystems that support an abundance of wildlife such as salmon, trout, crayfish and dragonflies. However, they also supply water to more than 700,000 people across Hampshire and the Isle of Wight. A new balance must be struck in order to keep these rivers and customers' taps flowing – especially during a drought.

In the short term, drought orders and drought permits can be employed where necessary to maintain supplies during periods of drought, however longer term solutions are needed to make up the shortfall.

Our current plan for making up the shortfall is set out in our final Water Resources Management Plan 2019 (WRMP19) and includes building our "Base Case".

We refer to the "Base Case" throughout this consultation. It describes the current preferred solution, as outlined in WRMP19, to install a 75 Ml/d (million litres per day) desalination plant with direct input into our network at Testwood Water Supply Works. This was selected following extensive consultation with customers and stakeholders as part of WRMP19, which was then approved by the Secretary of State for Environment, Food and Rural Affairs.

The site outlined in our WRMP is at Fawley, on land to the west of the former power plant and to the south of our Ashlett Creek Wastewater Treatment Works.

We have a legal obligation to explore all options to deliver the Base Case, but we also have an obligation to investigate back-up alternative options under WRMP19, and our regulators have asked us to investigate these alternatives as back-ups to desalination in case it proves undeliverable.

Accordingly, this document outlines our proposal for the Base Case and also provides information on the alternative options we are investigating in parallel, should the Base Case not be deliverable.

About Water for Life – Hampshire

The challenge we face

"Water for Life – Hampshire is our commitment to provide more resilient, sustainable water supplies that protect the environment while catering for a growing population. This wide-ranging programme will reduce reliance on Hampshire's chalk rivers and help protect the wildlife that lives in and around them. The result will be a resilient supply of water for customers and the environment, whatever the weather."

Mark Wintringham, Head of Delivery

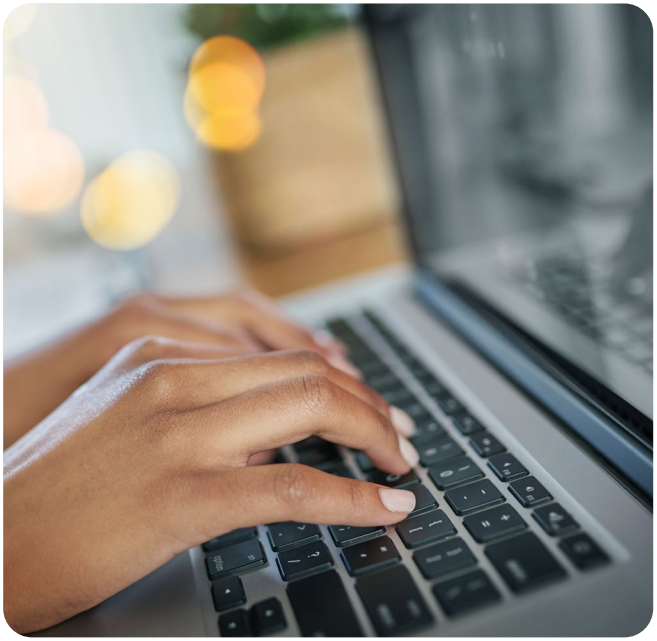
Lower Test © Jon Milliken

About this consultation

Welcoming your views

The purpose and intent of our consultation exercise is to consult on our Base Case as presented in the WRMP19 Preferred Strategy, which we are obliged to make all best endeavours to deliver. As required by WRMP and the RAPID Gated process, we are also considering alternative options in the event that the Base Case should prove not to be deliverable.

At this stage, we are not consulting on a 'choice' between the Base Case and the alternative solutions, as this strategy was already the subject of consultation in WRMP19. However, comments in relation to the Base Case and our alternatives are welcomed to help us to develop the Base Case and the alternatives. Should the Base Case not be deliverable, we will undertake further consultation on our alternative solutions.



We are seeking views on the following elements of the Base Case, where we are considering options for the most appropriate form of development to include as part of the project:

- Options for abstracting water from the Solent
- Information on the desalination plant infrastructure and the ways we are considering managing the cleaned wastewater (brine) removed from the seawater
- The alignment of the underground pipeline, to connect drinking water produced by the project, to our network

The wider aims of this consultation are to:

- Inform impacted and interested stakeholders and customers about the development of the Water for Life – Hampshire programme
- Gather feedback from stakeholders and the community on elements of the Base Case to help inform the development and design of our proposals
- Gather feedback from stakeholders and the community on alternative solutions, should the Base Case not be deliverable
- Identify key issues and concerns about the impacts and effects of our proposals and identify potential ways to help mitigate them

About this consultation

Welcoming your views

In light of COVID-19, we are taking a digital-first (online) approach to consultation and making use of technology to bring the scheme to life for customers and stakeholders. This is embodied by the Virtual Engage platform provided by our supplier Arup, which allows people to navigate a virtual consultation room and browse information boards, watch films and leave feedback – just as they would be able to in a physical drop-in session. This virtual room is available on our website - via the link in the box to the right.

We will provide one copy of the consultation brochure and feedback form, free of charge, to those unable to access them via the internet. These, and large print files, can be obtained by writing to us.

In preparation for this consultation, we have engaged with local authorities to help us identify hard to reach groups. We are contacting these groups individually to seek their advice on the best way of raising awareness and consulting with their members.

We will also explore more traditional methods of consultation as part of future rounds of consultation on the project (e.g. face-to-face meetings and events), when it is safe to do so.

In our initial engagement with each of the county's local authorities, we have asked for their support in helping us improve the reach of our digital communications. As a result, the consultation links have been shared via numerous newsletters, mailing lists and social media channels. A similar request was also made to other organisations and individual stakeholders to share via their networks. We are immensely grateful for this support.

This brochure provides information on the proposed elements of the Base Case, information on how consultation will be used to develop the Base Case further, and how to share your views. We would encourage you to read this brochure, attend the online consultation event and provide your thoughts by completing a feedback form.

The easiest way for you to send us your feedback is to complete the online feedback form. To request a printed copy of the form and this brochure please write to:

WATER FOR LIFE – HAMPSHIRE, PO BOX 5215

The address must be written in capital letters and you do not need a stamp.

If you have any further questions or would like to find out more, visit our web pages or contact us by email.

Website:
www.southernwater.co.uk/water-for-life-hampshire

Email:
WFLH@southernwater.co.uk

Your feedback is important to help us shape a solution for ensuring future water supply in Hampshire. We will consider all the comments we receive and use them to help us develop our proposals further.

This is your opportunity to give your views and the information we receive will help us develop our proposals.

The story so far

The needs case

Environmental and external pressures are driving the need for Water for Life – Hampshire. However, the immediacy of the challenge comes from the need to meet the expected future supply deficit after the planned changes to our abstraction licences. Additionally, drought permits and drought orders will also be less available during drought conditions after 2027. Drought permits and orders allow water companies to maintain public supplies by taking water beyond their abstraction licence limits.

For the past three years (2018–2020) we have needed to prepare applications for a drought permit on the River Test in accordance with our legal agreement with the Environment Agency. However, although a drought permit was granted in 2019, we have not needed to actually implement one, as subsequent rainfall raised the river levels meaning reliance on a drought permit was no longer required.

To offset the potential environmental impact of drought permits and drought orders, we have embarked on a £9.5 million suite of environmental monitoring and improvement projects that are being developed and delivered by local environmental organisations. This work is being funded and delivered regardless of whether a drought order or permit is implemented.

Activities already under way include:

- Monitoring of wildlife including fish, breeding birds and Southern Damselfly
- Working with Bristol Zoo to breed White Clawed Crayfish for wild release
- Restoring rivers to more natural states by removing man-made barriers and clearing areas of non-native invasive vegetation such as Himalayan Balsam

In the legal agreement with the Environment Agency (made under Section 20 of the Water Industry Act) we committed to using “all best endeavours” to implement the long term scheme for alternative water resources set out in our final WRMP19, which is called the ‘Preferred Strategy’. We have set out in our WRMP19 when each element of the Preferred Strategy will be delivered by. The largest element of it, which is a 75 Ml/d desalination plant will be delivered in 2027, with other elements later than this. This is because the phased reductions to our abstraction licences will mean that a large part of our deficit will need to be met by 2027. The proposed desalination plant will be capable of taking sea water from the Solent, treating it and pumping it via a new underground pipe to our Testwood Water Supply Works where it will be sent into the supply network.

White-clawed crayfish © Ben Rushbrook

The story so far

Introducing our Base Case

We refer to the "Base Case" throughout this consultation – it describes the current preferred solution, as outlined in WRMP19, to install a 75 Ml/d desalination plant at Fawley with direct input into our network at Testwood Water Supply Works.

This was selected following extensive consultation with customers and stakeholders as part of WRMP19, which was then approved by the Secretary of State for Environment, Food and Rural Affairs.

The site outlined in our WRMP is at Fawley, on land to the west of the former power plant and to the south of our Ashlett Creek Wastewater Treatment Works.

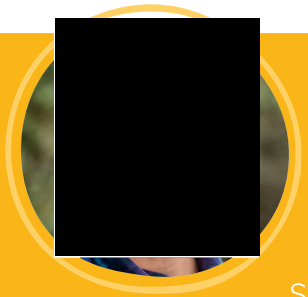
The desalination plant will take water from the Solent via an inlet. The water will be treated at the plant before it is pumped up to our Testwood Water Supply Works, where it will join the supply network. The brine (salty water) produced as part of the desalination process will be released back into the Solent via an outfall, the location of which is currently being developed.

Overview of RAPID

The development of the Base Case, and the investigation into alternatives that may be suitable back-up solutions to the Base Case, is being overseen by the new Regulators' Alliance for Progressing Infrastructure Development (RAPID) as part of the new formal gated funding process for the development of strategic water resources options.

RAPID comprises the three water regulators (Ofwat, Environment Agency and Drinking Water Inspectorate) and is advised by Natural England. Its role is to review progress and determine how, and if, the strategic water resources solutions that are being considered should proceed further through the process. It will make recommendations to Ofwat at various stages of the process, known as 'gates'. Ofwat will then release development funding for each solution as it passes through the 'gate' so it can continue to be developed to the next stage of feasibility. The aim is to enable companies to develop solutions on behalf of customers that are construction-ready in 2025 –2030 that protect and enhance the environment and benefit the wider society.

We have earlier gate times than the rest of the water industry because our need for a new water source is earlier than other companies, as a result of our forecasted supply deficit after 2027. We submitted our first set of documents to RAPID in September 2020 and it has since published its full response on its website. A link to this can be found in the Technical Documents section of our Water for Life – Hampshire webpages.



"The desalination infrastructure lies within the Solent and Southampton Water. We're working closely with the Environment Agency, Natural England and others to ensure we take particular care of this sensitive environment."

Nicola Meakins, Enabling Manager

The story so far

Alternatives we're investigating as back-ups

In addition to developing and delivering the Base Case in line with our "all best endeavours" commitment, we are also exploring a range of alternatives as a back-up, in case is the Base Case is not deliverable. Exploring these alternatives is essential in order to ensure customers' supplies are maintained. However, it should be noted that, because of our commitments to use "all best endeavours" to deliver the Base Case, the options for a new water supply are not presented as a straight choice between the Base Case and the alternatives – instead, the alternatives will only be considered for delivery should the Base Case be undeliverable.

We outlined eight potential back-up solutions and submitted them as part of the RAPID process.

They fall under three categories:

- Desalination alternatives
- Water recycling
- Water transfer

The solutions are listed under the following eight configurations:

Desalination alternatives

- Configuration A.2: 61 Ml/d at Ashlett Creek, near Fawley
- Configuration D.1: 40 Ml/d Desal to industrial use, 30 Ml/d Transfer from South West Water, 41 Ml/d Recycling

Water recycling

- Configuration B.2: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to the Upper Itchen / Havant Thicket Reservoir
- Configuration B.3: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to Otterbourne Water Supply Works
- Configuration B.4: Up to 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to Otterbourne Water Supply Works via Havant Thicket Reservoir
- Configuration B.5: 75 Ml/d recycled water from combination of Budds Farm Wastewater Treatment Works and Peel Common Wastewater Treatment Works

Also included in this consultation:

- Configuration B.1: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to the Lower Itchen

Configuration B.1 is the alternative option included in our WRMP19. However, it is now not being progressed as a potential alternative to the Base Case following Ofwat's decision not to fund further investigations. This is a result of RAPID's recommendation that Natural England and the Environment Agency have concerns about the impact of the recycled water release on the integrity of the River Itchen Special Area of Conservation and the scheme's ability to meet the resource deficit.

These options are described in more detail on pages 24–26.

The story so far

Alternatives we're investigating as back-ups

Water transfer

- Configuration D.2: 75 Ml/d direct raw water transfer from Havant Thicket Reservoir to Otterbourne

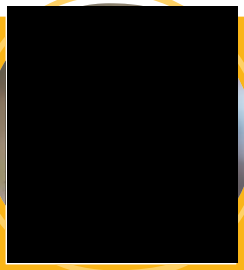
These options are described in more detail on page 27.

Also considered but not part of this consultation:

- Configuration C.1: West Country Sources (North) transfers

We submitted a joint proposal with Wessex Water and Bristol Water to RAPID at our accelerated Gate 1 for a regional water transfer scheme called 'West Country North Sources and Transfer'. This scheme is not considered as an alternative to the Base Case as, since our submission to RAPID in September 2020, it has been moved off the earlier gate timetable and is now part of the standard timeline with the rest of the water industry. As such, it would not deliver water supplies to address our forecast deficit by 2027.

"Water recycling is a different, more complex process than traditional water treatment. It involves taking highly treated wastewater and using advanced treatment techniques to clean and purify it to drinking water standards. In essence, all water is already recycled – we're looking at how to harness and speed up that natural process."



Varsha Wylie, Principal Process Engineer

Our proposals

Options for our Base Case

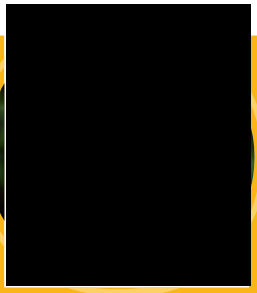
This section of the brochure provides more information on our Base Case solution and the back-up alternative options.

We are considering options for how to best deliver the Base Case, and would welcome your views on how we can further progress components of the scheme so that it is most successful. Components of the Base Case that we are developing, and would welcome your views, on are:

- Options for abstracting water from the Solent
- Information on the desalination plant infrastructure and the ways we are considering managing the cleaned wastewater (brine) removed from the seawater
- The alignment of the underground pipeline, to connect drinking water produced by the project, to our network

Please consider the information presented in this section of the brochure and let us know your thoughts by completing the feedback form.

This section also presents information on our alternative back-up options, which we are preparing plans for in the event that the Base Case is not deliverable. At this stage, we are not consulting on a 'choice' between the Base Case and the alternative solutions, however comments on alternatives will be welcomed and considered in future development of those alternatives. Should the Base Case not be deliverable, we will undertake further consultation on our alternative solutions.



"We're working with international experts on our desalination plans. The technology has the potential to provide a resilient supply for customers by tapping into a vast water resource – the sea. Taking water from the sea would help us to better protect the Test and Itchen ecosystems by reducing our demand on these freshwater sources in times of drought."

Jonny Greenwell, Process Engineer

Water vole © Tom Marshall

Our proposals

A.1: 75 Ml/d Desalination at Fawley (Base Case)

This is the preferred permanent water resources solution as outlined in our Water Resources Management Plan 2019 (WRMP19). It comprises a 75 Ml/d (million litres per day) desalination plant located at Ashlett Creek, near Fawley. The plant will be capable of taking seawater from the Solent, releasing the brine back to the Solent and then transferring drinking water, via a new pipe, to our Testwood Water Supply Works where it will connect into the supply network.

We welcome your views on our Base Case and the components described below.

Our Base Case desalination proposal includes the following key components:

1. Abstraction

Water will be abstracted (taken) from the Solent via an intake structure and pipe. We are currently considering two potential areas for this intake:

- Within the existing deep water dock at the former Fawley power station site (Route 1 abstraction)
- The open water area identified as suitable for abstraction as shown in Figure 1, where there are three possible routes for connection (Routes 2, 3 and 4 abstraction)

The intake will connect to a pumping station, either on the coast via an intake pipe constructed beneath the seabed, as shown in Figure 1, or next to the former Fawley power station. The pumping station location and layout is yet to be defined as it will depend on the abstraction location.

The abstraction will be connected to another pumping station, on land near to the Solent abstraction area shown in Figure 1, or near to the former Fawley power station.

We are considering different ways to stop fish swimming into the intake or debris being drawn into the mouth of the abstraction pipe. These include fully submerged “passive” mesh wire screens which stop fish and debris entering the abstraction pipe and mechanical screens within the abstraction pumping station that would carefully collect any fish and debris and return these back to the sea. The preferred screen type is yet to be determined and will depend on the location of the abstraction.

An underground pipeline will transfer the seawater to the desalination plant for treatment. There are a number of routes being considered for this depending on the abstraction location. Under consideration are:

1. **Route 1:** the former power station inlet, with a short connection to the Ashlett Creek site.
2. **Route 2:** developing the WRMP19 option and using the former power station outlet pipes by re-purposing and extending these to carry the abstraction pipe to the area of deep water (Route 2, in Figure 1).
3. **Route 3:** a shorter route from Ashlett Creek site to land near to Lepe Country Park and extending the pipe to the area of deep water.
4. **Route 4:** a longer route from Ashlett Creek site to land near to Lepe Country Park.

The method of pipeline construction is yet to be determined but we are considering using open excavation techniques (where an excavator digs a trench from the surface to lay a pipe) as well as alternative methods such as tunnelling, directional drilling or pipe-jacking (where pipes are pushed through the ground from a pit without disturbing the surface). The type of method we use will depend on the likely impacts and suitable mitigation measures we can employ.

Our proposals

A.1: 75 Ml/d Desalination at Fawley (Base Case)

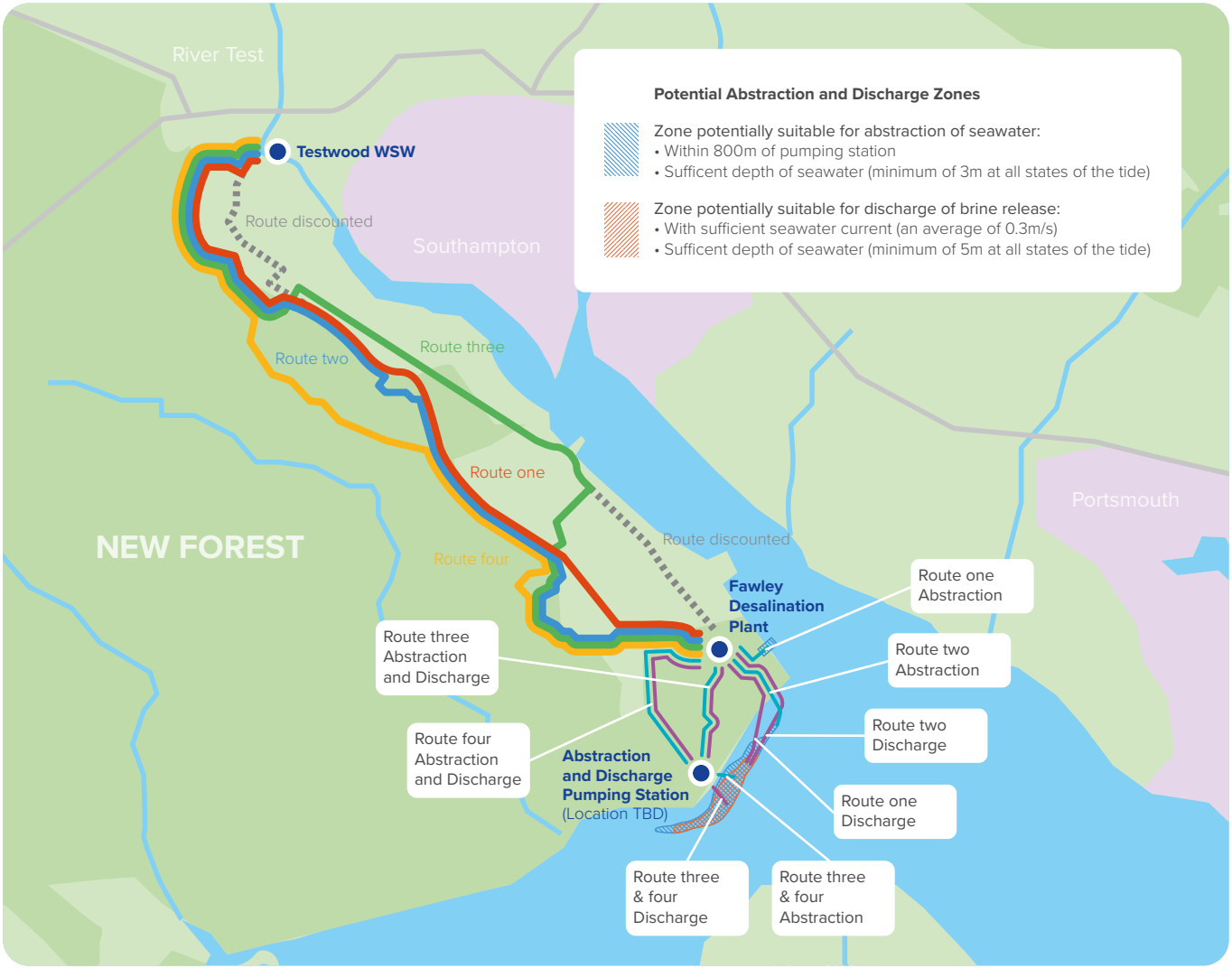


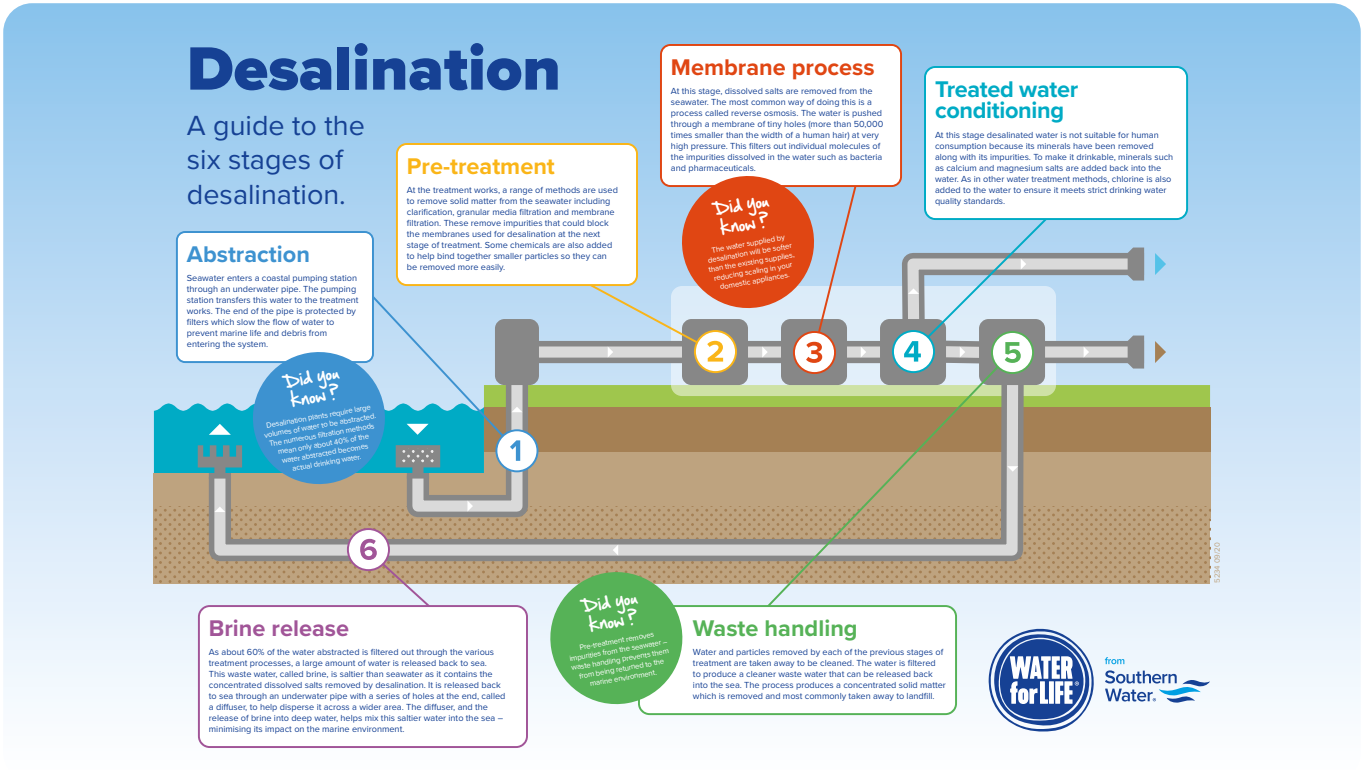
Figure 1: Possible abstraction and release locations, and transfer routes from the desalination plant to Testwood.

Our proposals

A.1: 75 Ml/d Desalination at Fawley (Base Case)

2. Desalination Plant

The desalination plant is the location where several processes are used to treat the seawater, by removing unwanted particles to make the water suitable for drinking. These processes, explained in the diagram below, clean and purify the water to ensure it meets strict drinking water quality standards. A number of large buildings, tanks and associated infrastructure will house the various stages of treatment as well as store the treated drinking water.



Our proposals

A.1: 75 Ml/d Desalination at Fawley (Base Case)

3. Waste disposal

Desalination produces waste products. We propose to dispose of these in different ways, according to their requirements.

- The **solid waste** would be sent to landfill, as the salt content means it cannot be beneficially used on farmland
- The **cleaned wastewater (brine)** would be released back to the Solent

An underground pipeline will transfer the brine back to the sea, via an outfall pipe constructed beneath the seabed. We are considering techniques such as tunnelling and pipe-jacking to install this outfall pipe. At the end of the outfall pipe, a carefully designed structure will release the brine into the identified area of deeper water (see Figure 1) where the tidal movement will help it disperse.

The route options and the release areas in the Solent we are considering are shown in Figure 1 and numbered 1-4.

Alternatives to these preferred options are:

- The solid waste could be combined with the liquid waste and released back to the sea. This would need to consider the sensitive marine environment we are releasing into.
- Evaporating water from the brine to form salt crystals that could then be removed from site and taken away either to landfill or to be used for another purpose such as road-gritting. The UK climate means evaporating the water from the salt naturally is not practicable. A more energy-intensive process would be required to heat the brine to encourage evaporation.

4. Pipeline to transfer to network

The drinking water produced by the desalination plant will be transferred to Southern Water's network via the Testwood Water Supply Works. The underground pipeline required to make this connection will be around 25km long. The pipe will connect to a new water storage tank at Testwood, from where it will join the wider network on the site. A number of proposed corridors have been developed for this pipeline, as shown in Figure 1.

There are four proposed corridors. A combination of these could be used for a preferred corridor:

1. **Route 1:** The original WRMP19 corridor: this route follows the A326, then passes through Totton to Testwood. The top section through residential roads has been discounted as it would not be possible to construct such a large, 80cm diameter, pipeline through the constrained areas between homes and existing strategic services.
2. **Route 2:** This corridor provides an alternative to laying the pipeline all within the A326. Key considerations for this route include existing utility pipes and cables and minimising impact on traffic. The route will cross into adjacent land where possible.
3. **Route 3:** This option explores whether the disused railway line could be used as a corridor for the pipeline. The southern section was discounted as it would not be feasible to pass through the existing oil refinery both in terms of construction and ongoing access and maintenance of the pipe.
4. **Route 4:** This route avoids landfill sites and parts of the A326. It would follow the route of existing oil refinery pipelines and minor roads.

The feasibility of these corridors is still being investigated and developed, alongside this consultation. Further, more detailed, discussions with stakeholders, particularly the Environment Agency and Natural England, and other utility providers in the area are planned to help identify a preferred route.

Our proposals

Alternative water source solutions

We are considering alternative options in the event that the Base Case proves not to be deliverable. Doing so will ensure we have a back-up solution to maintain customers' supplies.

Desalination alternatives

A.2: Desalination 61 Ml/d at Ashlett Creek, near Fawley

This alternative outlines a smaller capacity desalination plant that would use the same site, abstraction and intake location options and release options as the Base Case. The smaller production capacity of 61 Ml/d is being considered based on the results of further computer modelling undertaken since WRMP19. The smaller plant would use less power and have smaller waste streams. Supply and demand computer modelling is still ongoing and is helping us understand how often the desalination plant would be required and the maximum flows during severe and extreme droughts.

D.1: Desalination 40 Ml/d, Transfer from South West Water 30 Ml/d, and Water Recycling 41 Ml/d

This alternative proposal is a combination of an industrial desalination plant, a smaller water recycling plant and diversion of an existing transfer. There is currently a large coastal industrial facility that uses 40 Ml/d of drinking water that could potentially be replaced with desalinated water. The existing supply is provided from two sources, approximately 10 Ml/d from Southern Water and approximately 30 Ml/d from South West Water. An element of this water (15 Ml/d) is further treated by the industrial user to produce 'demineralised' water used in the industrial process.

This proposal would provide:

- A 40 Ml/d desalination plant for the industrial facility on its land and using its existing intake and release locations. In addition, 15 Ml/d of the desalinated water would be further treated by Southern Water to produce 'demineralised' water. These two types of water would be transferred, via separate pipelines, to supply the industrial user.
- The existing 30 Ml/d supply to the industrial facility from South West Water would be redirected to Southern Water's drinking water network. This would remove the need for an additional 20 Ml/d transfer pipeline from South West Water.
- The desalination option would be supplemented by a 41 Ml/d Water Recycling Plant using treated wastewater from Budds Farm Wastewater Treatment Works. This is the same process and pipeline route as proposed for option B.2 as outlined in the following section.

Kingfisher © Andy Ames

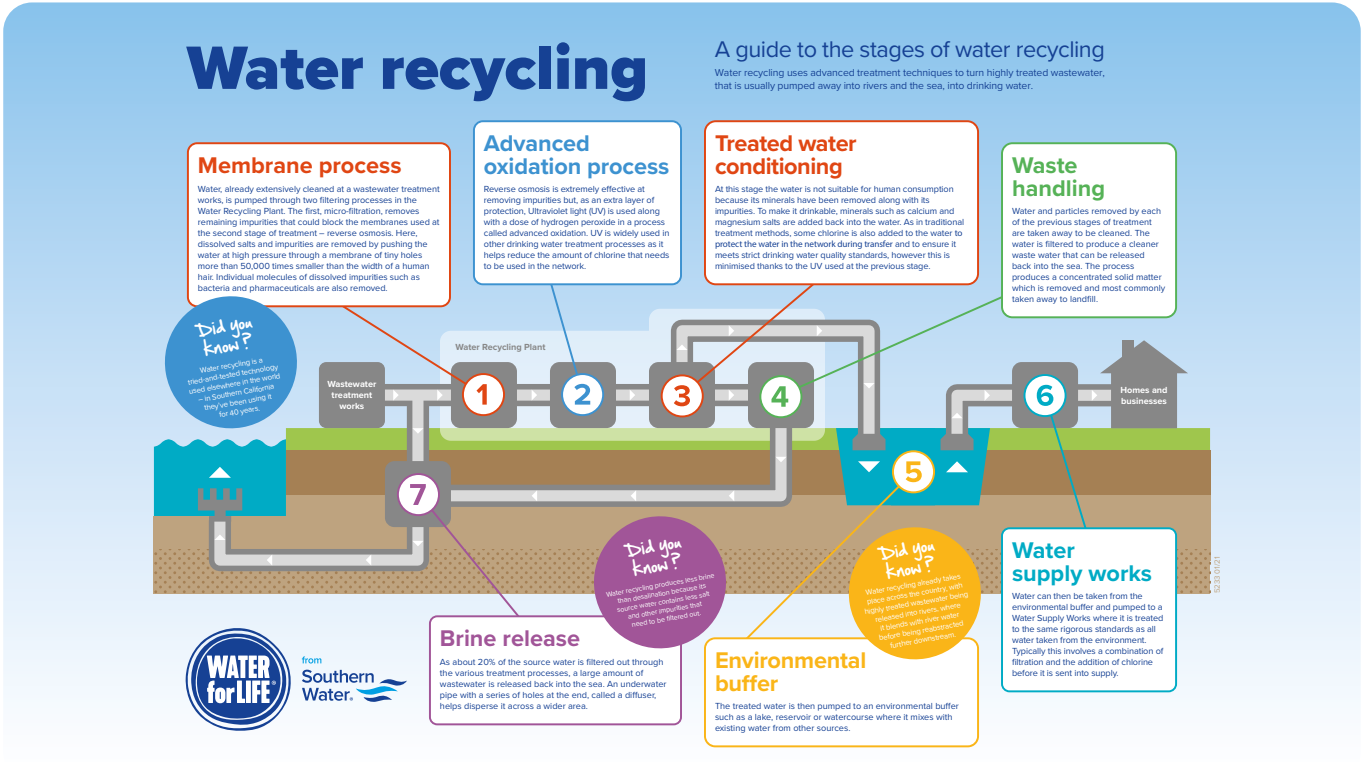
Our proposals

Water recycling

We are exploring ways of recycling our treated wastewater and using it to supplement other sources of drinking water. We call this method water recycling. It speeds up the natural process of water treatment and means we can keep water in our network – reducing the amount we need to take from the environment.

All the Water Recycling Plants considered as alternatives use highly-treated wastewater from our largest wastewater treatment works at Budds Farm in Havant. The higher outputs of 75 Ml/d use an additional connection to a second site, our Peel Common Wastewater Treatment Works in Gosport. The water would be transferred from Budds Farm via a short underground pipeline to the Water Recycling Plant.

The Water Recycling Plant uses advanced treatment techniques to clean and purify the water, as detailed in the diagram below. These processes would take place inside a number of buildings and tanks.



Our proposals

Water recycling

The waste handling requirements of water recycling are similar to those of desalination. Waste materials are removed to form either solid waste or brine. Roughly 20% of the treated wastewater would be returned to Budds Farm as brine and released out to sea via the site's existing 5.7km outfall pipe. The solid waste would typically be taken away to landfill or possibly combined with the existing solid waste treatment processes at Budds Farm.

The advanced treatment processes at the water recycling plant produce a purified water that can then be transferred on to blend with other sources of water in a water body such as a river, lake or reservoir referred to as an 'environmental buffer'. From there, the water would be transferred to our Otterbourne Water Supply Works for further treatment to ensure it meets strict water quality standards.

An alternate configuration, known as 'direct recycling', would see the recycled water sent directly to Otterbourne Water Supply Works for further treatment without first blending with existing supplies in an environmental buffer. The diagram opposite outlines an 'indirect recycling' process.

We are exploring a number of alternative sizes of water recycling plant, and options for transferring the recycled water to Otterbourne Water Supply Works. These are shown in Figure 2 below.

Figure 2: Overview map of Water Recycling Alternatives.

Our proposals

Water recycling

B.1: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to the Lower Itchen

This configuration uses the proposed Water Recycling Plant with a release into the Lower Itchen river, as originally presented in WRMP19, from where the water could be re-abstracted.

It would include:

- Water Recycling Plant capable of producing up to 61 Ml/d of recycled water using treated wastewater from Budds Farm Wastewater Treatment Works.
- A 47km underground pipeline to transfer the recycled water to a release point in the Lower Itchen river.
- An abstraction on the Lower Itchen capable of taking up to 61 Ml/d of water from the river and transferring it via a new pipeline to Otterbourne for further treatment to ensure it meets strict water quality standards.

This is the alternative option included in our WRMP19. However, it is now not being progressed as a potential alternative to the Base Case following Ofwat's decision not to fund further investigations. This is in line with RAPID's recommendation, following concerns raised by Natural England and the Environment Agency about the impact of the recycled water release on the integrity of the River Itchen Special Area of Conservation and the scheme's ability to meet the resource deficit.

B.2: Water Recycling Plant 61 Ml/d to a lake near Otterbourne WSW

This configuration uses the proposed Water Recycling Plant with a release into a new lake, near Otterbourne, followed by further treatment at the water supply works.

It would include:

- Water Recycling Plant capable of producing up to 61 Ml/d of recycled water using treated wastewater from Budds Farm Wastewater Treatment Works.
- A 42km underground pipeline to transfer the recycled water to a purpose-built lake. There are a number of alternative initial corridors being considered, as outlined in Figure 3. The pipeline would release into a new lake, most-likely created on land next to our Otterbourne Water Supply Works, where the water would blend with our current river and groundwater abstractions.
- Abstraction and transfer from the lake to Otterbourne Water Supply Works for further treatment to ensure it meets strict water quality standards.

Our proposals

Water recycling

Figure 3: Initial corridor routes between a possible WRP location and Otterbourne WSW

Our proposals

Water recycling

B.3: Water Recycling Plant 61 Ml/d direct to Otterbourne Water Supply Works

This configuration uses the proposed Water Recycling Plant with a direct connection to Otterbourne Water Supply Works.

It would include:

- Water Recycling Plant capable of producing up to 61 Ml/d of recycled water, using treated wastewater from Budds Farm Wastewater Treatment Works.
- A 42km underground pipeline to transfer recycled water from the Water Recycling Plant to Otterbourne, where it would blend with other river and groundwater abstractions.
- Further treatment at Otterbourne Water Supply Works to ensure the water meets strict water quality standards.

A number of proposed alternative pipeline corridors are being considered as per Figure 3.

B.4: Water Recycling Plant up to 61 Ml/d to Havant Thicket Reservoir and then combined with Configuration D.2

This configuration uses the proposed Water Recycling Plant to supplement the spring-fed water within Havant Thicket Reservoir. Maintaining the water level in this way would increase the amount available for supply. The size of the plant is still being assessed and developed with Portsmouth Water. This configuration is presented in more detail below with the Water Transfer D.2.

Water Recycling Plant 75 Ml/d to a new lake near Otterbourne WSW

This configuration is the same as Alternative B.2, but with a larger Water Recycling Plant and a larger transfer of water (75 Ml/d).

This alternative requires a separate pipeline from our Peel Common Wastewater Treatment Works to carry treated wastewater to the Water Recycling Plant. This would be in addition to the pipeline from Budds Farm to the Water Recycling Plant. Together, these two separate sources of treated wastewater would provide the 75 Ml/d required. The development of the pipeline route between Peel Common and the Water Recycling Plant is in early design stages but would approximately follow the initial, roughly 25km, corridor shown in Figure 3.

Our proposals

Water transfer

Alternative use of the proposed Havant Thicket Reservoir

We are collaborating with Portsmouth Water to develop and fund the proposed new Havant Thicket Reservoir as an additional water source to support the water-stressed South-East. The reservoir will be filled with water from the Bedhampton and Havant Springs during the winter months. This scheme is part of Southern Water and Portsmouth Water's current WRMP but is not a potential alternative to the Base Case.

However, we are also working with Portsmouth Water to jointly explore a potential enhanced use of Havant Thicket Reservoir in the future. The proposal involves an additional transfer of water from the reservoir to our Otterbourne Water Supply Works. The potential of topping up the reservoir with recycled water from the proposed Water Recycling Plant is also being explored.

This configuration would involve transferring 75 Ml/d of water from the proposed new reservoir to our Otterbourne Water Supply Works. The Havant Thicket Reservoir would have a capacity of approximately 8.7 billion litres.

D.2: Water Transfer between Havant Thicket and Otterbourne WSW

This alternative comprises an additional abstraction of water from the proposed Havant Thicket Reservoir. It does not include supplementing the reservoir water with recycled water. A pumping station and pipeline would be required to transfer water from the reservoir to our Otterbourne Water Supply Works for further treatment. This underground pipeline would be about 35km long. The pumping station would comprise a small number of buildings and underground chambers connected to the reservoir by underground pipes. The initial corridors being considered are shown in Figure 4.

Combined Configuration D.2 and B.4: Water Transfer and smaller Water Recycling Plant

This alternative combines configurations D.2 and B.4 to supplement water levels in the proposed Havant Thicket Reservoir with recycled water.

Blending recycled water with the spring water that will naturally fill the reservoir would increase the amount of water available for supply. This would add resilience during a drought and has the potential to further reduce the need to take water from the environment.

This configuration would require a smaller Water Recycling Plant to supplement the reservoir and support the additional transfer of water.

It would include:

- A smaller water recycling plant capable of producing up to 61 Ml/d using treated wastewater from Budds Farm Wastewater Treatment Works.
- An underground pipeline, about 5km long, to transfer water from the Water Recycling Plant to the reservoir.
- A pipeline to transfer water from the reservoir to Otterbourne Water Supply Works, as outlined in Water Transfer Configuration D.2 on this page.

Our proposals

Water recycling

Figure 4: initial corridor routes between the proposed Havant Thicket Reservoir and the Otterbourne Water Supply Works

Environmental context

Our legacy

This section describes the surrounding environmental context for our Base Case, a 75 Ml/d desalination plant at Fawley, including the terrestrial, coastal and marine environment.

The Base Case is located within a sensitive environmental context which we will continue to consider carefully as we shape our proposals. In developing our plans, we need to consider and manage potential impacts to a wide range of environmental receptors.

Should our Base Case not be deliverable, we will need to carefully consider the environmental setting of our back-up solutions which also have the potential to impact a wide range of receptors.

"Hampshire, especially its rivers, coastline and marine environment, is home to a diverse range of wildlife. That's why we have a team of ecologists working alongside the local wildlife and river trusts to make sure that we minimise environmental impact during construction and deliver a lasting legacy of improved conditions for wildlife."

Nicola Catt, Senior Environmental Advisor

Shalfleet

Environmental context

Coastal and marine environment

The proposed seawater intake and outfall lie within the Solent and outer areas of Southampton Water, which are of high biological and nature conservation importance. These waters carry the highest level of environmental protection through national and international nature conservation designations.

These include Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Ramsar sites, Sites of Special Scientific Interest (SSSI) and Marine Conservation Zones (MCZs), as shown in the image on the next page. European nature conservation sites in the area are due to be incorporated into a National Site Network following the UK's departure from the EU, but are expected to continue to carry a high level of protection. Numerous Priority Coastal and Marine Habitats and Species and protected coastal landscapes are also present.

The proposed seawater intake and outfall are located within the Solent and Dorset Coast SPA which has been designated for important bird species (common tern, sandwich tern and little tern) that breed and feed in the area. The subsea pipelines may also need to pass through, or near to, the North Solent SSSI and Solent and Southampton Water SPA and Ramsar which support large numbers of breeding seabirds – including gulls and terns in the summer and waterfowl such as geese, ducks and waders in the winter. Large areas of the surrounding coastline are also designated under the Solent Maritime SAC, which is designated for important marine and estuarine habitats and other important features such as salt meadows and mudflats. A number of MCZs are designated in the Solent and wider English Channel, the nearest of which is the Yarmouth to Cowes MCZ located on the north-western coast of the Isle of Wight.

Southampton Water and the Solent, which connect with upstream rivers such as the Test and Itchen, also support the passage of migratory fish species such as sea lamprey and Atlantic salmon. The Solent also supports marine mammal species such as the common seal.

The Solent and Southampton Water are also important for coastal and marine users. For example, for fishing, navigation, other commercial uses and recreation.

Sandwich Terns

Environmental context

Coastal and marine environment

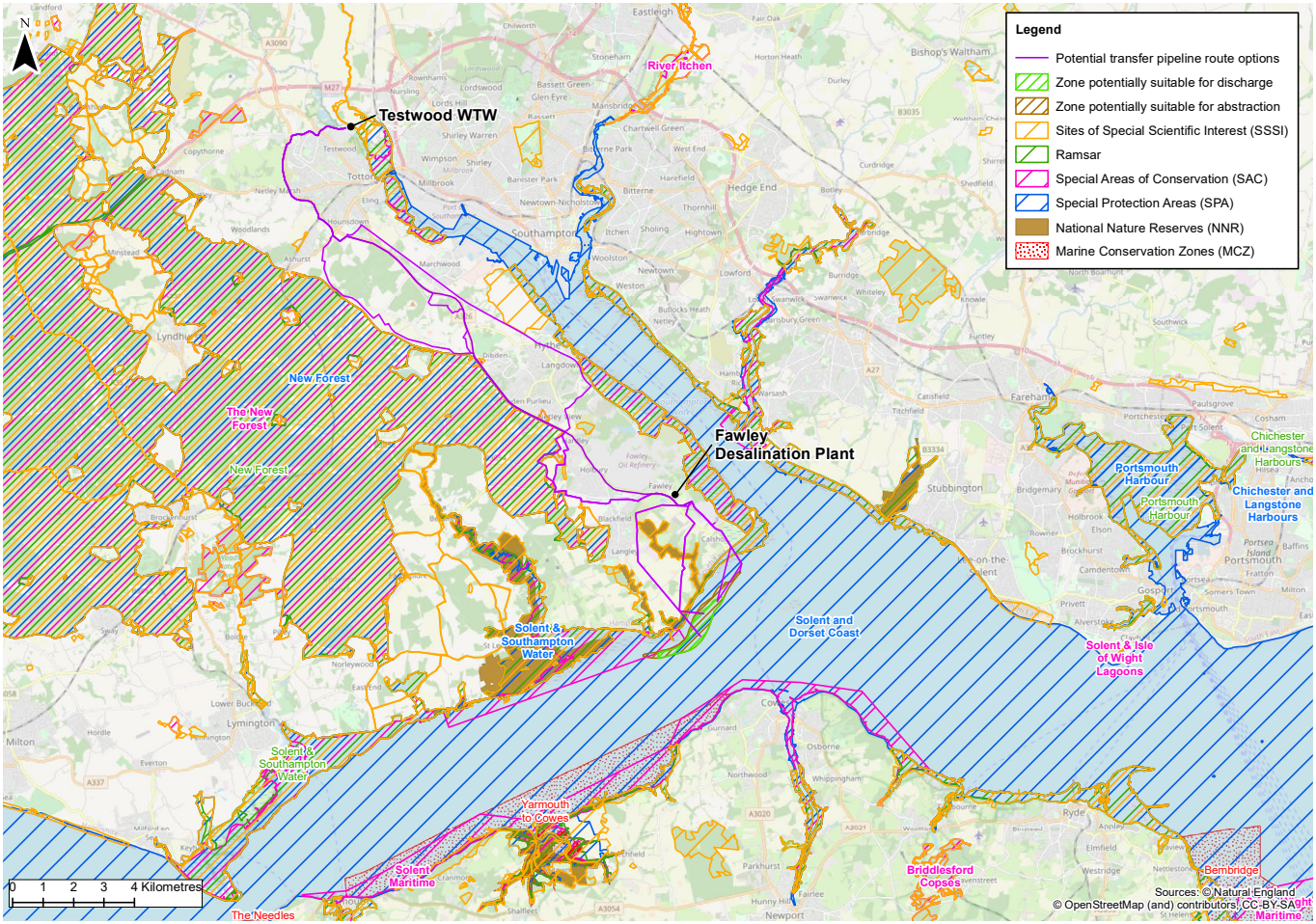


Figure 5: International and national nature conservation designations within the surrounding environment

Environmental context

Terrestrial environment

The terrestrial components of our Base Case, including the desalination plant, its pumping station and transfer pipelines cover a large area with the potential to impact a wide range of receptors.

The location of the desalination plant, as identified in our WRMP, is at Ashlett Creek in Fawley. This is located within the New Forest National Park which carries a high level of protection under national planning policy to ensure the protection of natural beauty, wildlife and cultural heritage.

The transfer pipelines cross large areas of the New Forest District, which include historic buildings and archaeological designations, rivers and green spaces, as well as residential and business communities who could be affected by our proposals.

The large number of nature conservation designations in the coastal and marine environment is also reflected in the terrestrial environment. For example, the transfer pipeline corridors are bordered closely by the New Forest SSSI and SAC, which supports a number of important habitats such as heaths, mires, grassland and woodland habitats.

A number of these habitats and species are sensitive to potential changes in groundwater and surface water flows. A wide range of protected and priority species also known to be present in the surrounding area, including a range of bats, dormice, and other species. A number of locally important wildlife sites are also present.

New Forest heathland

Environmental context

Terrestrial environment

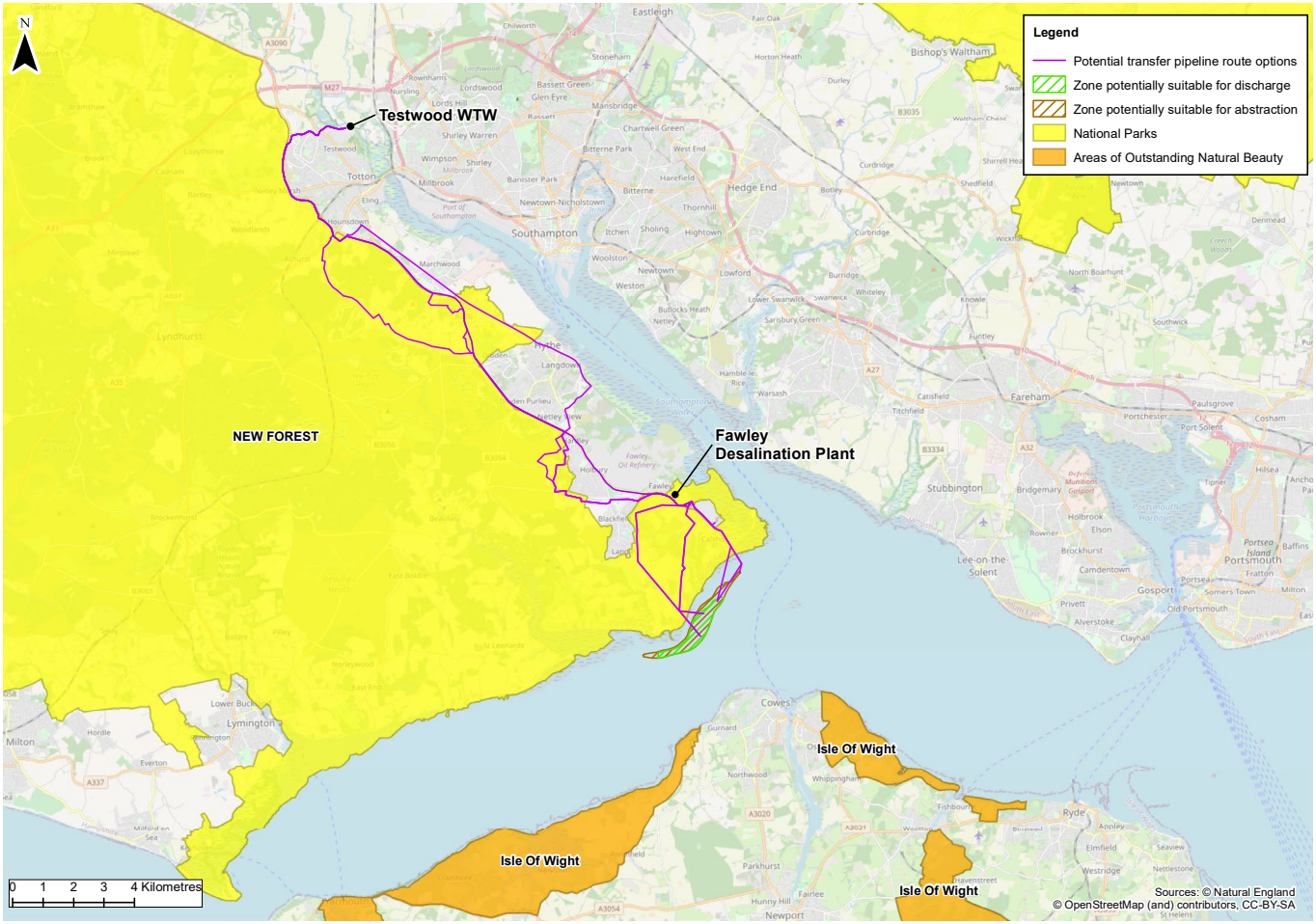


Figure 6: Our proposals are located within a sensitive landscape setting, including the New Forest National Park

What our proposals mean for you

Potential impacts

We recognise that our proposals have the potential to impact local communities and the surrounding environment in a number of ways. Impacts, both beneficial and adverse, may occur during construction and operation and will need to be assessed fully through an Environmental Impact Assessment (EIA) process. Further details on the EIA process are provided on page 36, see 'Environmental effects'.

The following sections provide further information on the construction and operational challenges associated with our proposals and how we will seek to identify and manage impacts.

This section describes the challenges and approaches for our Base Case, however many of these challenges would also apply to our back-up solutions. Should our Base Case not be deliverable, we will further explore the specific impacts of these back-up solutions and undertake further consultation.

Construction

Our construction proposals are still being developed and are at an early stage. However we recognise that construction of our Base Case may cause impacts and disruption to local communities and the surrounding environment. We will explore ways to minimise these impacts as far as possible, through the selection of appropriate construction methodologies, consultation and engagement with local communities, as well as the implementation of other controls or mitigation measures. Mitigation measures will be secured through appropriate planning controls to ensure we deliver the commitments made in our EIA.

We will work with experienced contractors to carefully plan construction activities at all stages of delivery. Below, we have set out some of the approaches we propose to take to address the key construction challenges for this project. We will need to develop detailed construction methodologies to support our application and will consult more on this in the future.

Construction challenges

Traffic management

Traffic management, including road closures may be necessary to enable the excavation and laying of new transfer pipelines to connect the new strategic water source to an appropriate point in the water distribution network. Road closures will be carefully planned in consultation with the relevant local authorities to ensure they are kept to a minimum to reduce the impact on traffic flows and local residents. All traffic management measures will follow the prescribed process and guidance.

We will undertake a construction traffic assessment to consider the traffic which will be generated during the construction phase of the proposed scheme and review the effects on, and measures to minimise, disruption to the local transport network.

We will develop a Construction Traffic Management Plan describing suitable transport routes for construction related traffic along the highway network and detailed plans to include specific access points off the highway to the individual laydown areas. Mitigation measures may include the exploration of alternative delivery routes such as marine transport to reduce the impact on the highway network where possible.

Other large construction projects planned during the same time in the same area, such as the Fawley Waterside Development, will be carefully considered to ensure construction programmes are aligned. Coordination of the projects will help ensure both are delivered without delays and any potential impacts on residents and businesses in the local area can be minimised.

What our proposals mean for you

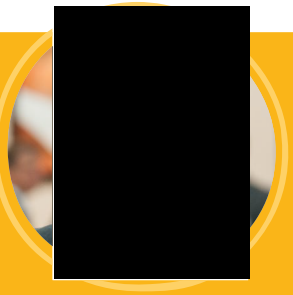
Potential impacts

Proximity to residential properties

Full consultation with local residents will take place at key stages of the project to ensure any concerns are carefully considered and reflected in the project plans. The project team is developing a dedicated communications strategy, including involving any contractors working on our behalf to make sure residents are properly engaged and understand the detailed proposals. An environmental management and monitoring plan will be developed to ensure disruption caused by construction activities are minimised. Where sensitive receptors, including residential areas, are identified in the area, specific mitigations including the use of alternative construction methodologies and plant / equipment will be implemented to further reduce impacts. All construction works will be limited to specified working hours wherever possible.

Construction principles

We are committed to minimising the impacts of our proposals through the application of a number of key construction principles.



"We'll be using a range of best-practice techniques to ensure any disruption is kept to a minimum."

Rob Lawless, Senior Project Manager

Examples of the types of principles we will explore include:

- Use of best-practice construction techniques
- Using lean construction techniques such as reducing waste by using "just in time", and closely monitored, deliveries to reduce waste of materials and by maximising the use of recycled materials whilst minimising water and energy consumption
- Maximum use of ultra-low or zero emission plant and vehicles
- Use of the latest technological innovations and alternative approaches to improve safety and reduce the whole life cost of the construction
- Reduce whole life embedded carbon by developing alternative low carbon solutions including new materials and energy efficiency
- Construction works using best-practice management and monitoring techniques leading to high quality value for money construction
- Ensuring that training and skills development are supported, including considering apprenticeships, and ensuring that safety is at the forefront of everybody's thinking when working on the project
- Using off-site manufacturing where possible, so that packages / plant can be fabricated in a controlled environment remote from the construction site in order to reduce onsite construction impacts
- The project will be managed in accordance with the Considerate Constructors Scheme

What our proposals mean for you

Potential impacts

Environmental effects

Given the scale of the Base Case (and, in the event that one of them is taken forward, the back-up solutions), an Environmental Impact Assessment (EIA) will be required to be carried out to consider the likely significant impacts of the proposals.

We are committed to carrying out a comprehensive EIA which will inform our design as part of an iterative process. The purpose of the EIA process is to help identify the possible likely significant environmental effects of the proposals and identify how those impacts can be avoided, reduced or mitigated.

To support the EIA process, an extensive suite of environmental surveys is proposed to ensure we capture sufficient information on existing baseline conditions. We are planning surveys for our Base Case and back-up solutions to ensure we have robust baseline information for all eventualities.

Our EIA will be supported by a wide range of supporting assessments, including consideration of our proposals under the Water Framework Directive, Habitats Regulations and Environmental Net Gain requirements set out in the draft Water Resources NPS. These assessments will be undertaken with the support of experienced scientists, planning consultants and engineers.

The first stage of the EIA process will be preparation of a Scoping Report during 2021, which will set out the proposed scope and content of our EIA. Further information on how we proposed to identify and manage some of the key impacts of our proposals is presented on the following pages.

Managing impacts

One of our key aims is to identify and manage any impacts of our proposals through further surveys and investigations, consultation and engagement, iterative design and robust impact assessments. This will enable us to identify appropriate measures to mitigate impacts.

In line with good practice EIA process, we will follow a ‘hierarchy’ of mitigations whereby we seek to avoid impacts in the first instance. Where impacts cannot be avoided, we will seek to reduce or compensate these as far as practically possible.

In addition to these steps, we are seeking opportunities to incorporate remediation, enhancement and environmental net gain where possible, not just by offsetting but by actually improving the receiving environment.

Our EIA will consider the full range of environmental receptors. The following sections further explore how we are proposing to explore managing impacts across several key environmental receptors.

Damselfly © Dick Hawkes

What our proposals mean for you

Potential impacts

Biodiversity

Our proposals have the potential to affect both designated and non-designated habitats and species. Further work will be undertaken to ensure these are managed appropriately. In particular, we will review our proposals against compliance with the requirements of the Habitats Regulations.

We recognise that development will be required within the sensitive Solent and Dorset Coast Special Protection Area (SPA), combined with potential impacts to habitats and loss of food sources due to abstraction intake and brine waste-stream extending across the West Solent. We will also carefully investigate potential disruption of migratory fish using the Solent and Southampton Water to access spawning sites on upstream chalk rivers, due to the abstraction intake and brine release. Further investigations will be undertaken to support this work through modelling of the brine dispersion, refinement of the location and design of the intake and outfall structures and exploration of possible mitigation measures. Potential impacts in terms of temperature and turbidity will also be carefully considered.

Care will be taken to ensure the buried transfer pipelines do not cause severance of surface and groundwater flows that support a number of key habitats and species in the surrounding area. Where the transfer pipelines cross rivers, we propose to horizontally drill beneath these features to minimise impacts to aquatic habitats and flows.

A number of terrestrial and aquatic habitats in the area are sensitive to air quality changes, for example through nitrogen deposition which can cause disruption to the life cycles of animals and plant life. We will need carefully consider emissions from our proposals (e.g. from HGV vehicles or back-up diesel generators) to ensure these impacts are minimised.

Ecological enhancements and biodiversity net gain opportunities will be explored and developed further as our proposals progress, ensuring any identified opportunities are secured through agreements with statutory bodies, local wildlife organisations and interest groups.

Migrating Salmon

What our proposals mean for you

Potential impacts

Historic environment

The construction and operation of water resources infrastructure has the potential to result in adverse impacts on the historic environment above, at and below the surface.

'Historic environment' refers to those elements of the environment that have formed from, or are present as a result of, the interaction between people and their surroundings throughout the past. It includes 'heritage assets' such as historic buildings, elements of landscapes, parks and gardens and archaeological monuments and remains, which people identify and value as contributing to their shared culture and heritage.

Archaeological and historical context

There are numerous Scheduled Monuments within the surrounding area, including Calshot Castle (a sixteenth century artillery castle), a Scheduled Monument close to Holbury Manor (moated site, fishponds and associated settlement site, 200m west of Holbury Manor), and a Roman road on eastern edge of Beaulieu Heath, 220m north east of Hardley Bridge Ford. Similarly, listed buildings are numerous with a large number at the waterfront in Hythe and in Marchwood. Numerous non-designated heritage assets also exist throughout the area which will also be considered.

The area encompassing the New Forest National Park also has a rich historical past. It was proclaimed a royal forest in 1079 for use as a royal hunting ground and was a naval plantation in the eighteenth century.

The Solent and Southampton Water have also long been recognised as important areas for marine heritage.

Sheltered landing places along the coastline have drawn human populations to the area for millennia and have contributed to the development and prosperity of the region.

There is also the potential for unknown (i.e. undiscovered) archaeology to be present within the terrestrial and marine environment due to the area's rich history.

To further understand the historic environment, we will undertake a number of surveys and investigations including reviews of historic mapping and data, non-intrusive ground-scanning surveys and potentially some excavations at selected locations. Effective ways to promote understanding of the historic environment during development of the project will be identified through the EIA process. This may take the form of talks with local history and archaeology groups or community engagement through local groups and schools.

Landscape

A detailed Landscape and Visual Impact Assessment will be undertaken to identify the impacts of the proposals on landscape and urban character, valued landscapes and views. Landscape and visual effects also include tranquillity effects, which would affect people's enjoyment of the natural environment and recreational facilities. The impacts on the urban, industrial, rural and coastal characters will be considered with valued landscapes such as the New Forest National Park and maritime seascapes will be given particular consideration.

Good design is key to sustainable development and will be embedded within the project development through site layout and measures relative to existing landscape and historical character and setting.

What our proposals mean for you

Potential impacts

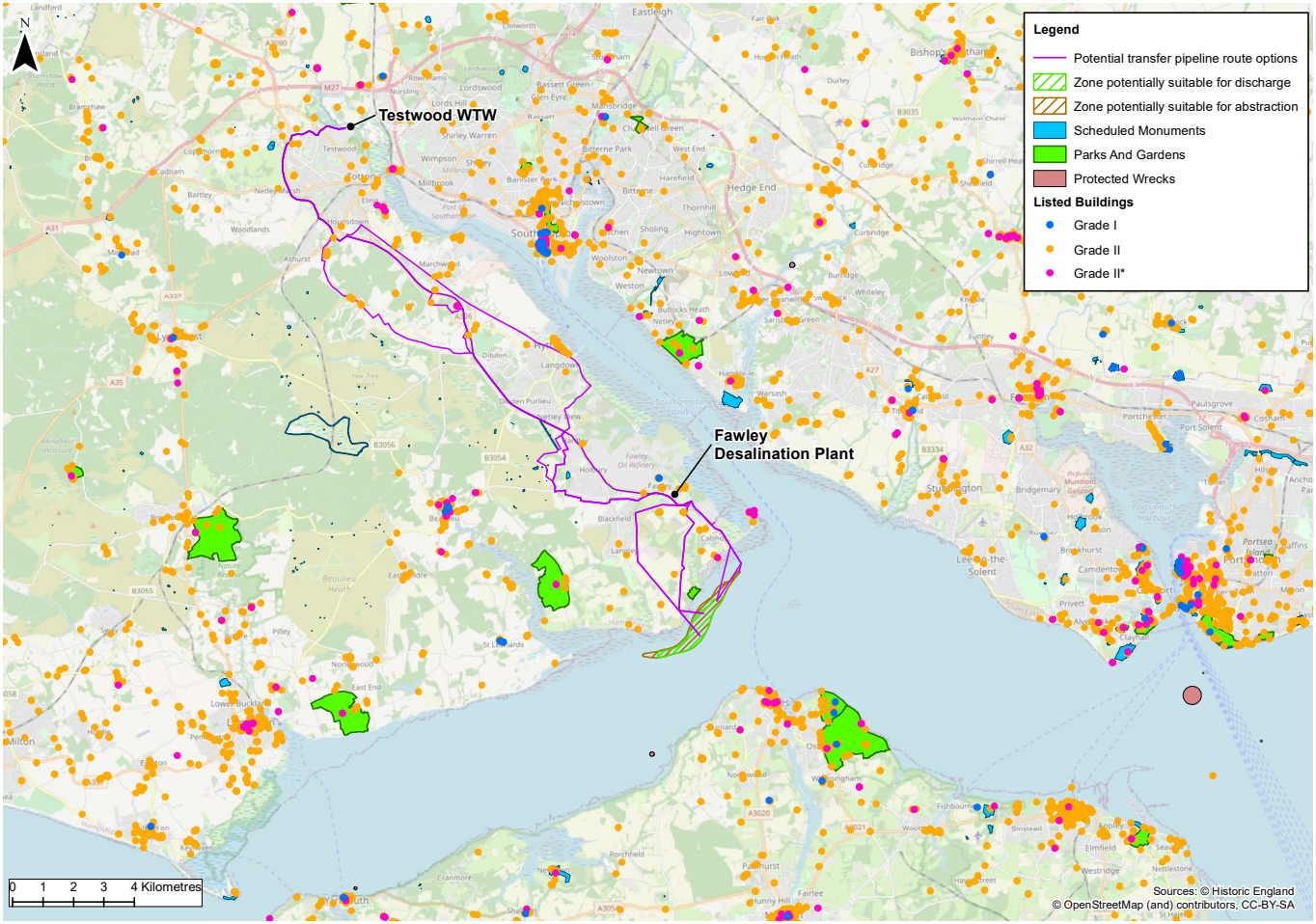


Figure 7: There are number of important heritage features located within the surrounding area

What our proposals mean for you

Potential impacts

Climate change and carbon

Due to the technologies involved, desalination has high energy demands. We are exploring opportunities to reduce energy demands and take into consideration the carbon intensity of the power supply for the desalination plants.

We are also looking at ways to reduce carbon by considering climate impacts at construction and during operation. This will be done through the selection of plant, materials and construction techniques. We will also future-proof our designs by ensuring they are resilient to the impacts of climate change.

Noise and vibration

If not managed properly, excessive noise and vibration from our proposals could impact people's quality of life and health, use and enjoyment of green spaces and areas with high landscape quality. Noise can also affect terrestrial and marine biodiversity. Noise and vibration impacts may occur through operation of the desalination plant and associated infrastructure and through construction activity, particularly piling and the movement of machinery and vehicles.

Where possible, we will seek to reduce noise emissions at source through design choices, choice of construction plant, timing of construction activities and screening.

An extensive noise survey will be carried out to ensure the assessment is carried out against a representative baseline. Noise and vibration will be assessed in line with all relevant local and national noise policy and in accordance with the relevant guidance documents and British Standards.

People and communities

Operation of the desalination plant will secure a long-term drinking water supply for local communities in the event of a drought. It will also create job opportunities for local people, particularly during construction. However, construction and operation of our proposals has the potential to cause some disruption to local communities, which we will work hard to keep to a minimum.

The coastal location of the proposed desalination plant, on the edge of the New Forest National Park, and the nature of the surrounding area means that there are several recreational and residential receptors in the surrounding area. These include the Calshot Beach and Lepe Beach which are both designated as bathing beaches. There are Public Rights of Way across Badminston Farm and in the North Solent Nature Reserve where it extends into Dark Water near Blackfield.

Flood risk and drainage

We will consider both the impacts of our proposals on flood risk and drainage, as well as their susceptibility to flood events. We will also consider the impacts of climate change and coastal change. A Flood Risk Assessment (FRA) will accompany our application to assess this fully. Where possible we will explore sustainable drainage systems, such as wetlands and bioswales, to minimise impacts to fluvial, estuarine, or surface water flood risk.

Lepe beach

Next steps

After the consultation

After the consultation ends, we will publish a report summarising the feedback received and our response. From this, the project team will make recommendations for further development of the scheme, including potential mitigation measures in relation to environment, landscape, water quality, climate change and heritage.

As the project progresses, further consultation will take place. We will keep you informed on this and further opportunities for you to be involved.

We have not yet confirmed which consenting route we will progress through for the Base Case. However, we are currently considering whether the best option for delivery would be to seek to bring the project into the Development Consent Order (DCO) regime to consider the project as a whole (including marine licenses and other consents required for the project) or to seek consent via conventional planning applications under the Town and Country Planning Act regime, accompanied by relevant marine licence applications for works in the marine environment. This is subject to further investigation and engagement as our proposals are developed further.

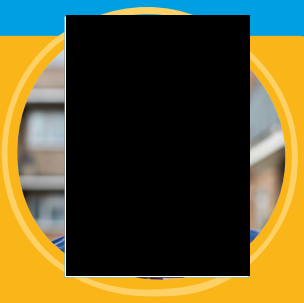
The DCO process involves making an application to the Planning Inspectorate (PINs) under the Planning Act 2008 to seek development consent for the proposals. Under this consenting route, the application would be considered by an appointed Examining Authority with the application eventually being determined by the Secretary of State.

The DCO process seeks to deliver a streamlined route for Nationally Significant Infrastructure Projects and was established to provide a faster and fairer process for both communities and applicants. The process puts emphasis on engagement with communities and stakeholders at the pre-application stage to allow for the opportunity to influence a project at an early stage. The DCO process also allows decisions to be made more quickly when compared to traditional consenting routes, which is particularly important for the tight timescales required by our WRMP19 commitments, as set out in the 'Story so far' section of this document. Given the importance of the desalination plant at Fawley to meeting the region's water supply demands, we consider that it could be considered 'nationally significant'.

Should a DCO be sought, a number of other consents will also be required to ensure compliance with all necessary consenting regimes.

"It's really important that you share your views with us and help us shape our plans. After all – it's your water we're talking about."

Nick Eves, Head of Strategic Customer Insight



Next steps

Share your views

This consultation is your opportunity to express your views on our proposed "Base Case" solution and alternative "back-up" options.

We are seeking views on the following elements of the Base Case:

- Options for abstracting water from the Solent
- Information on the desalination plant infrastructure and the ways we are considering managing the cleaned wastewater (brine) removed from the seawater
- The alignment of the underground pipeline, to connect drinking water produced by the project, to our network

We will listen to your views, publish a consultation report and use this to inform the development of the programme.

Further information on the programme and work to date can be found at the following link:

www.southernwater.co.uk/water-for-life-hampshire

Here you'll find a digital copy of this brochure as part of a virtual exhibition that allows users to virtually move around a 360-degree image of an information event and interact with materials including banners, videos and technical documents, as if you are attending an exhibition.

The easiest way for you to send us your feedback is to complete the online feedback form. To request a printed copy of the form and this brochure please write to:

WATER FOR LIFE – HAMPSHIRE,
PO BOX 5215

The address must be written in capital letters and you do not need a stamp.

If you have any further questions or would like to find out more, visit our web pages or contact us by email at WFLH@southernwater.co.uk.

Your feedback is important to us in shaping a solution for ensuring future water supply in Hampshire. We will consider all the comments we receive and, where appropriate, use them to help us develop our proposals further.

The deadline for submitting responses to the consultation is 16 April 2021.

Glossary

Term, abbreviation or acronym	Definition
1-in-200-year	A severe drought – the return period of a significant drought and is the design drought year in WRMP19
1-in-500-year	An extreme drought
ABE	All best endeavours
AONB	Area of Outstanding Natural Beauty - an area of countryside in England, Wales or Northern Ireland which has been designated for conservation under the Countryside and Rights of Way Act 2000 to protect, conserve and enhance its natural beauty
AOP	Advanced Oxidation Process
Base Case	The preferred strategy in WRMP19. Option A.1 (75Ml/d desalinated water from Fawley to Testwood WSW)
Catchment	The area of region where all water flows to a single point, e.g. for a wastewater catchment, all wastewater flows to a single WTW for treatment
Configuration	The structure of each Option (e.g. technology choice, route to deliver water)
COVID-19	Coronavirus Disease
DCO	Development Consent Order - a DCO is a statutory instrument (law) that grants consent for a Nationally Significant Infrastructure Project under the terms of the Planning Act 2008. A DCO can combine consent to develop, operate and maintain a project, alongside a range of other approvals that would normally have to be obtained separately, such as listed building consent, deemed marine licence and certain environmental consents. A DCO can also contain powers for the compulsory acquisition and temporary possession of land.
Drought Order	Powers granted by the Secretary of State during drought to modify abstraction / discharge arrangements on a temporary basis
Drought Permit	An authorisation granted by the Environment Agency under drought conditions, which allows for abstraction / impoundment outside the schedule of existing licences on a temporary basis
EA	Environment Agency
EIA	Environmental Impact Assessment - the aim of EIA is to protect the environment by ensuring that a relevant authority (local planning authority or Secretary of State) when deciding whether to grant a planning permission or DCO for a project which is likely to have significant effects on the environment does so in the full knowledge of the likely significant effects and takes this into account in the decision making process. EIA also enhances public engagement in the process as consultation on EIA is mandatory.
Fawley Site	The site described in WRMP19
Gated Process	The formal staged process, run by Ofwat, for specific water companies to investigate solutions and for regulators to review progress and determine how, and if, the solutions will progress.

Glossary

Groundwater	Water held underground in the soil or in voids in rock
HRA	Habitats Regulation Assessment - assessment to consider potential effects on designated European sites
MCZ	Marine Conservation Zone
Ml/d	Megalitres (million litres) per day
NE	Natural England
NFNP	New Forest National Park
NPS	National Policy Statement - produced by government under the Planning Act 2008. They comprise the government's objectives for the development of nationally significant infrastructure projects in a particular infrastructure sectors (energy, transport, water, wastewater and waste). There are currently 11 designated NPS, setting out government policy on different types of national infrastructure development. The NPS for water resources is currently in draft form, pending designation by the Government. Applications for DCOs are decided in accordance with the relevant NPS.
NSIP	Nationally Significant Infrastructure Project
Ofwat	Water Services Regulation Authority - The economic regulator of the water sector in England and Wales
Planning Inspectorate (PINS)	TThe Planning Inspectorate deals with planning appeals, national infrastructure planning applications, examinations of local plans and other planning-related and specialist casework in England and Wales.
Preferred Strategy	Final strategy for the Western Area as described in WRMP19 (formerly referred to as Strategy A in draft WRMP19) and is what is required to be delivered by the Section 20 agreement
Programme	All activities included within the scope of WfLH
Project	Specific activities required to deliver one of the options / solutions / schemes
PW	Portsmouth Water
RAPID	Regulatory Alliance for Progressing Infrastructure Development - formed to help accelerate the development of new water infrastructure and design future regulatory frameworks. Made up of the three water regulators: Ofwat, Environment Agency and Drinking Water Inspectorate. It was established with the intention of providing a seamless regulatory interface, working with the industry to promote the development of national water resources infrastructure that is in the best interests of water users and the environment.
Routes	A number of alternative routes have been identified for the pipeline component for the sub-option and configurations.

Glossary

s20	Section 20 - the agreement signed by Southern Water and the Environment Agency during the abstraction licence Inquiry in March 2018 under Section 20 of the Water Resources Act 1991.
SAC	Special Area of Conservation - land designated under Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora. Important high-quality conservation sites that will make a significant contribution to conserving the habitats and species identified in Annexes I and II, respectively, of the Habitats Directive. The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds).
SSSI	Site of Special Scientific Interest - an area that is of particular interest to science, most commonly because of its rare plant or animal life.
SPA	Special Protection Area - areas classified in accordance with European Council Directive 2009/147/EC on the conservation of wild birds, known as the Birds Directive. SPAs protect rare and vulnerable birds (as listed on Annex I of the Birds Directive), and regularly occurring migratory species.
SW	Southern Water
T100	Target 100 water efficiency Initiative
WERF	Water Industry Research Foundation
WFD	Water Framework Directive - a framework for the protection of inland surface waters, estuaries, coastal waters and groundwater.
WfLH	Water for Life Hampshire
WRMP, WRMP19, WRMP24	Water Resource Management Plan - statutory plan setting out how water companies will supply healthy, reliable drinking water to homes and businesses for at least the next 25 years. These plans are published at least every five years. The plan published in 2019 is WRMP19 and the next update will be WRMP24 which is intended to be published in 2023.
WRP	Water Recycling Plant - a site whereby wastewater effluent is purified into water that can be reused as a raw water for providing drinking water.
WRSE	Water Resources South East, the regional body relevant for Southern Water's operational area.
WSW	Water Supply Works - A site whereby raw water is taken from the environment, treated and discharged into the distribution network supplying homes, businesses and industry.
WTW	Wastewater Treatment Works - a site where wastewater and sewerage is treated and released back into the environment.

B.7 Feedback form

Water for Life – Hampshire

Consultation Feedback Form 2021

Question 1: Which of the following best describe your interest in the Water for Life – Hampshire programme? (Please tick as many as apply)

- ☐ I am a customer whose water supply would be directly impacted by the programme
- ☐ I am a resident who lives close to the proposed Base Case option
- ☐ I live within the local area of the programme
- ☐ I own land within the Water for Life – Hampshire area
- ☐ I own or work for a business located within the Water for Life – Hampshire area
- ☐ I am a stakeholder from an organisation / group interested in this programme
- ☐ I take a general interest in what my water provider is doing
- ☐ None of these
- ☐ Other – please specify:

THE BASE CASE

Southern Water has assessed a range of options to find a solution to address water supply shortages in Hampshire. Based on the evidence of our assessments to date, and building on our Water Resources Management Plan, our proposal (known as the 'Base Case') is to build a 75 Ml/d desalination plant in the Fawley area.

For full details on the Base Case, please review the relevant materials from the consultation brochure.

Question 2a: To what extent do you agree that the proposed Base Case would be an acceptable solution to the potential future water resource challenges in Hampshire?

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Strongly disagree
- ☐ Don't know

Question 2b: Please provide any comments in relation to the following areas to support your answer to question 2:

- Options for abstracting water from the Solent
- Information on the desalination plant infrastructure and the ways we are considering managing the cleaned wastewater (brine) removed from the seawater
- The alignment of the underground pipeline, to connect drinking water produced by the project, to our network

(Please provide as much detail as you can)

Question 3: Do you have any comments to make in relation to potential impacts of the proposed Base Case?

These could cover the following areas: water, environmental, energy, traffic and transport and people (health and socio-economic).

(Please provide as much detail as you can)

ALTERNATIVE OPTIONS

Southern Water have identified alternative options should the 'Base Case' not be delivered.

Desalination alternatives would comprise:

- Configuration A.2: 61 Ml/d at Ashlett Creek, near Fawley
- Configuration D.1: 40 Ml/d Desalination to industrial use, 30 Ml/d Transfer from South West Water and 41 Ml/d Water Recycling

For full details on the desalination alternatives, please review the relevant materials from the consultation brochure.

Question 4a: To what extent do you feel the desalination alternatives would be an acceptable alternative solution, should the Base Case not be delivered, to address potential future water resource challenges in Hampshire?

- [ ] Strongly agree
- [ ] Agree
- [ ] Neither agree nor disagree
- [ ] Disagree
- [ ] Strongly disagree
- [ ] Don't know

Question 4b: Please provide any comments to support your answer to question 4a

(Please provide as much detail as you can)

Question 5: Do you have any comments to make in relation to potential impacts of any of the desalination alternatives listed?

Comments could cover, but are not limited to, the following areas: water, environmental, energy, traffic and transport and people (health and socio-economic).

(Please provide as much detail as you can)

Water recycling alternatives would comprise:

- Configuration B.1: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to the Lower Itchen
- Configuration B.2: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to the Upper Itchen/Havant Thicket
- Configuration B.3: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to Otterbourne Water Supply Works
- Configuration B.4: Up to 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to Otterbourne Water Supply Works via Havant Thicket Reservoir
- Configuration B.5: 75Ml/d recycled water from combination of Budds Farm Wastewater Treatment Works and Peel Common Wastewater Treatment Works

For full details on the water recycling alternatives, please review the relevant materials from the consultation brochure.

Question 6a: To what extent do you feel the water recycling alternatives would be an acceptable alternative solution should the Base Case not be delivered, to address potential future water resource challenges in Hampshire?

- [ ] Strongly agree
- [ ] Agree
- [ ] Neither acceptable nor disagree
- [ ] Disagree
- [ ] Strongly disagree
- [ ] Don't know

Question 6b: Please provide any comments to support your answer to question 6a

(Please provide as much detail as you can)

Question 7: Do you have any comments to make in relation to potential impacts of any of the water recycling alternatives listed?

Comments could cover but are not limited to the following areas: water, environmental, energy, traffic and transport and people (health and socio-economic).

(Please provide as much detail as you can)

Water Transfer alternatives would comprise:

- Configuration D.2: 75 Ml/d direct raw water transfer from Havant Thicket to Otterbourne

For full details on the water transfer alternatives, please review the relevant materials from the consultation brochure.

Question 8a: To what extent do you feel the water transfer alternatives would be an acceptable alternative solution, should the Base Case not be delivered, to address potential future water resource challenges in Hampshire?

- [ ] Strongly agree
- [ ] Agree
- [ ] Neither agree nor disagree
- [ ] Disagree
- [ ] Strongly disagree
- [ ] Don't know

Question 8b: Please provide any comments to support your answer to question 8a

(Please provide as much detail as you can)

Question 9: Do you have any comments to make in relation to potential impacts of the water transfer alternatives?

Comments could cover, but are not limited to, the following areas: water, environmental, energy, traffic and transport and people (health and socio-economic).

(Please provide as much detail as you can)

FINAL COMMENTS

Question 10: Do you have any other comments, thoughts or concerns about the Water for Life – Hampshire programme of proposed options you have provided feedback on?

(Please provide as much detail as you can)

Question 11a: How did you hear about this consultation?

- ☐ Received a letter / email
- ☐ Newspaper
- ☐ Social media
- ☐ Local authority / newsletter or mailing list
- ☐ Family / friends
- ☐ Other source

Question 11b: Do you have any feedback on this consultation – eg level of information provided, advertising etc?

(Please provide as much detail as you can)

ABOUT YOU

Question 12: Solely for analysis purposes, please could you provide the first section of your postcode?

Question 13: If you would like to receive a notification when future stages of public consultation on the Water for Life – Hampshire programme start, please enter your details including your email below:

Email address (required):

Name (required):

Telephone number (optional):

Organisation (optional):

☐ Please tick this box if you are happy for Southern Water to use the contact details you have provided in this survey.

Please use the box below if you have any further comments you would like to make.

Thank you for providing feedback on the Water for Life – Hampshire proposals – your time is very much appreciated.

Data Protection: In accordance with the GDPR, Southern Water will securely store your email address on our servers for this purpose for up to 2 years. You have the right to withdraw your consent to this at any time. By providing your email address here, we confirm, we will not contact you about anything other than consultation projects; though you may be contacted by us as a customer if you have given permissions to use your email address on your account. Should you have any concerns or wish to withdraw your consent, please contact Southern Water by using the email address WFLH@southernwater.co.uk or you can contact the Southern Water Insight Team on 07884 220 825. In due course, the information provided in response to this consultation will be used in a Consultation Report as part of a consenting application to the Planning Inspectorate (PINS), as an executive agency of UK Government. The PINS privacy statement is available to view here: https://infrastructure.planninginspectorate.gov.uk/help/privacy-notice/

5391_02/21

B.8 Virtual room


WATER for LIFE
from Southern Water
Water for Life – Hampshire
Base Case –
alination
Desalination
What our proposals mean for you and the environment
Protecting the environment
Water recycling
Water transfer

B.9 Consultation Feedback Report

Water for Life - Hampshire
Consultation Feedback Report

September 2021
Final Version

from Southern Water

Contents

Contents 2

Glossary 4

1. Introduction 5

1.1. Purpose and structure of report 5

1.2. Introduction to Water for Life – Hampshire 5

2. Approach to Non-Statutory Public Consultation 7

2.1. Purpose and scope of consultation 7

2.2. Approach to consultation 7

2.2.1. Introduction 7
2.2.2. Developing our approach to consultation 7
2.2.3. When we consulted 7
2.2.4. What we consulted on 8
2.2.5. Who we consulted with 9
2.2.6. 2.2.6 Making information available 9
2.2.7. Raising awareness 10

2.3. Approach to analysing consultation responses 12

3. Analysis of consultation responses 14

3.1. Overview 14

3.2. Consultation responses - feedback form 16

3.3. Consultation responses - direct communication 21

3.3.1. Individual responses 21
3.3.2. Local Planning Authorities 21
3.3.3. Parish Councils 22
3.3.4. Other Statutory Consultees 22
3.3.5. Non-Statutory Consultee Groups 23

3.4. Key Issues 23

3.4.1. Base Case (desalination) 24
3.4.2. Desalination alternatives 28
3.4.3. Water recycling alternatives 28
3.4.4. Water transfer alternatives 28
3.4.5. Consultation 29
3.4.6. Needs case 29
3.4.7. Other suggestions 29

4. Summary and next steps 30

Appendix 31

Appendix B: Feedback Form 33

Appendix C: List of Stakeholders 34

Appendix D: Press Release 37

Glossary

1-in-200-year	A severe drought – the return period of a significant drought and is the design drought year in WRMP19.
1-in-500-year	An extreme drought.
AONB	Area of Outstanding Natural Beauty - an area of countryside in England, Wales or Northern Ireland which has been designated for conservation under the Countryside and Rights of Way Act 2000 to protect, conserve and enhance its natural beauty.
Base Case	The preferred strategy in WRMP19 and the focus of the non-statutory public consultation. The Base Case was described as Option A.1 (75Ml/d desalinated water from Fawley to Testwood Water Supply Works) in the Consultation Brochure.
Catchment	The area of region where all water flows to a single point, e.g. for a wastewater catchment, all wastewater.
Configuration	The structure of each Option (e.g. technology choice, route to deliver water).
COVID-19	Coronavirus Disease
Groundwater	Water held underground in the soil or in voids in rock.
Ml/d	Megalitres (million litres) per day
Ofwat	Water Services Regulation Authority - the economic regulator of the water sector in England and Wales.
Preferred Strategy	Final strategy for the Western Area as described in WRMP19 (formerly referred to as Strategy A in draft WRMP19) and is what is required to be delivered by the Section 20 agreement.
Prescribed / Statutory Consultees	Consultees as prescribed by the Planning Act 2008 and secondary legislation
Programme	All activities included within the scope of WfLH.
Project	Specific activities required to deliver one of the options / solutions / schemes.
RAPID	Regulatory Alliance for Progressing Infrastructure Development - formed to help accelerate the development of new water infrastructure and design future regulatory frameworks. Made up of the three water regulators: Ofwat, Environment Agency and Drinking Water Inspectorate. It was established with the intention of providing a seamless regulatory interface, working with the industry to promote the development of national water resources infrastructure that is in the best interests of water users and the environment.
Routes	A number of alternative routes have been identified for the pipeline component for the sub-option and configurations.
Section 20 agreement	A legal agreement under Section 20 of the Water Industry Act which commits Southern Water to pursue the preferred permanent water resources solution/s with “all best endeavours”
WRMP	Statutory plan which sets out how water companies will supply healthy, reliable drinking water to homes and businesses for at least the next 25 years.
WRMP19	The statutory plan published in 2019 which sets out how Southern Water will supply healthy, reliable drinking water to homes and businesses.

1. Introduction

1.1. Purpose and structure of report

This document comprises Southern Water's Consultation Feedback Report on the non-statutory public consultation undertaken from 08 February to 16 April 2021 on the strategic water resource project under the Water for Life - Hampshire programme.

The purpose of this document is to provide an account of the public consultation undertaken and an overview of consultation feedback received and to highlight key issues emerging from the consultation responses.

The scope of this document does not include how Southern Water has considered and had regard to the consultation feedback. This will be included at the next appropriate stage in the consenting process.

The Consultation Feedback Report is structured as follows:

- Section 2 Approach to non-statutory public consultation provides an overview of the purpose and scope of consultation, and the approach taken to consultation and analysis of consultation responses.
- Section 3 Analysis of consultation responses provides an overview of individual responses to the feedback form questions, responses received by direct communication and emerging key issues.
- Section 4 Summary and next steps provides a summary of the report and sets out the next steps that will be undertaken in relation to consultation and engagement on the Water for Life: Hampshire programme.

1.2. Introduction to Water for Life – Hampshire

Through the Water for Life - Hampshire programme, Southern Water aims to provide sustainable solutions to water shortages that both protect Hampshire's river habitats and provide for the county's growing population in the future.

Southern Water is required to meet their statutory duties as a water undertaker to prepare and maintain a Water Resources Management Plan (WRMP) under section 37A of the Water Industry Act 1991[1] . A WRMP should set out how each water undertaker will manage and develop water resources to meet their supply obligation for at least the next 25 years. Southern Water is required to publish a WRMP every five years to ensure it continues to be relevant and specific to current challenges and opportunities.

[1] section 37A of the Water Industry Act 1991 https://www.legislation.gov.uk/ukpga/1991/56/section/37

Southern Water produced a WRMP in 2019 (WRMP19)[2] which states the need to provide approximately 190 million litres of water over the next 10 years in Hampshire to meet future demand. The WRMP19 outlines proposed long-term solutions to protect the unique chalk rivers in Hampshire, the River Test and Itchen and make up future water shortfalls.

In the WRMP19, Southern Water sets out plans for a desalination plant on the Solent which Southern Water is required to use "all best endeavours" to deliver. This desalination plant is known as the 'Base Case' and is the focus of the non-statutory public consultation. The Base Case involves the construction of a circa 75Ml/d (million litres per day) desalination plant at Fawley with direct input into the water network via a pipeline to Testwood Water Supply Works.

Whilst Southern Water has a legal obligation to use all best endeavours to deliver the Base Case, it is also required to investigate alternative options in the event that the Base Case cannot be delivered. A description of the alternative options that were introduced at the non-statutory public consultation is provided in Table 1.

Table 1 Alternative options introduced in the non-statutory public consultation

Category	Alternative Solutions[3]
Desalination alternatives	• **Configuration A.2**: 61 Ml/d at Ashlett Creek, near Fawley • **Configuration D.1**: 40 Ml/d Desalination to industrial user, 30 Ml/d Transfer from South West Water, 41 Ml/d Recycling
Water recycling	• **Configuration B.2**: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to the Upper Itchen / Havant Thicket Reservoir • **Configuration B.3**: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to Otterbourne Water Supply Works • **Configuration B.4**: Up to 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to Otterbourne Water Supply Works via Havant Thicket Reservoir • **Configuration B.5**: 75 Ml/d recycled water from combination of Budds Farm Wastewater Treatment Works and Peel Common Wastewater Treatment Works • **Configuration B.1**: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to the Lower Itchen [no longer under consideration]
Water transfer	• **Configuration D.2**: 75 Ml/d direct raw water transfer from Havant Thicket Reservoir to Otterbourne

[2] WRMP19 https://www.southernwater.co.uk/media/3656/5025_wrmp_-v11.pdf
[3] Further detail about the alternative solutions can be found in the scheme consultation brochure https://www.southernwater.co.uk/our-story/water-for-life-hampshire/our-consultation-water-for-life-hampshire

2. Approach to Non-Statutory Public Consultation

2.1. Purpose and scope of consultation

The purpose of the non-statutory public consultation was to consult on the Base Case as presented in the WRMP19, which Southern Water has an obligation to use its all best endeavours to deliver. Some information on the alternative options was provided as part of the consultation to provide wider context and to seek views on the alternative options, should the Base Case prove to be undeliverable, however the scope of consultation was to consult on the Base Case and it was not an options appraisal consultation where consultees were asked to select a preferred option.

2.2. Approach to consultation

2.2.1. Introduction

Southern Water recognises the importance of consulting early in the development of a scheme. For this reason, it chose to consult at a stage earlier than the statutory requirements, using best practice as a guide.

2.2.2. Developing our approach to consultation

The overarching aims of consultation for the Water for Life – Hampshire programme framed Southern Water's approach to the non-statutory public consultation. The aims are to:

1. Inform impacted and interested stakeholders and customers about the development of the Water for Life – Hampshire programme.
2. Gather feedback from stakeholders and the community on elements of the Base Case to help inform the development and design of our proposals.
3. Gather feedback from stakeholders and the community on alternative solutions, should the Base Case not be deliverable.
4. Identify key issues and concerns about the impacts and effects of our proposals and identify potential ways to help mitigate them.

Allied to this, was Southern Water's intention to take a digital-first (online) approach and use the latest technology to bring the scheme to life for customers and stakeholders, whilst still making use of traditional methods where safe, appropriate and practical to do so in accordance with latest government guidance on social distancing in light of Covid-19.
Due to the lockdown restrictions at the time, a digital-first (online) approach was taken to consultation.

A 360-degree virtual image of a consultation room was provided which enabled users to browse information boards, watch films and leave feedback. A copy of the consultation documents was available on request to those who were unable to access the information online.

2.2.3. When we consulted

The non-statutory public consultation took place between 8th February and 16th April 2021. This included an extension from the originally planned 42 days. The extension to consultation was provided in response to some residents located in the Fawley area contacting Southern Water to note that they had not been contacted directly or had not seen the consultation promotion. Letters were distributed to residents in the Fawley area and the extension to consultation provided to ensure sufficient time to engage.

Due to the virtual nature of the consultation, Southern Water issued notification by email on the 8th February to statutory consultees and potential interest groups.

The extension to consultation resulted in consultation coinciding with 'purdah'[4] . As Southern Water had already provided six weeks in advance of purdah commencing for public bodies and local authorities to respond, the extension was not considered to impact upon or to have been influenced by purdah.

2.2.4. What we consulted on

As noted in Section 2.1, the focus of consultation was on the Base Case as presented in the WRMP19. A description of the Base Case was provided along with a high-level overview of the potential environmental impacts.

As Southern Water is also required to explore alternative options should the Base Case prove to be undeliverable, an introductory description of the alternative options was provided and initial views were sought on whether the alternatives would be acceptable to address potential future water resource challenges in Hampshire, should the Base Case not be deliverable.

Table 2 provides detail about the consultation documents that formed the basis of the non-statutory public consultation. The consultation documents were available online through the virtual platform[5] and available in other formats by request.

Table 2: non-statutory public consultation documents

Document	Detail
Consultation Brochure (included in Appendix A)	The Consultation Brochure was the primary consultation document. The audience for the document was broad, encompassing all those people and organisations who have taken an interest and want to respond to the consultation. The Consultation Brochure contains: • The background of the Water for Life - Hampshire programme; • A summary of the proposed desalination plant (Base Case) as the preferred option and alternative options;

[4] Purdah is the pre-election period (which ran from the 25th March 2021 to 6th May 2021) during which time local members will generally refrain from making public announcements.
[5] https://www.southernwater.co.uk/our-story/water-for-life-hampshire/our-consultation-water-for-life-hampshire

	• Information about potential benefits, effects and impacts of the desalination plant and alternative options; and • How Southern Water may propose to mitigate any potential impacts. The Consultation Brochure signposted readers to a more detailed information report and how to provide feedback.
Feedback Form (included in Appendix B)	The Feedback Form aimed to collect people's views during the consultation process. The questions sought feedback on the issues that are relevant to this stage of Southern Water's programme development. It also provided space for consultees to make any additional comments. The feedback questionnaire was available as a printed version and an online version was available on the scheme website. It provided details of the Freepost address for the scheme.

2.2.5. Who we consulted with

A stakeholder mapping exercise was undertaken to identify statutory and non-statutory stakeholder groups relevant to the Water for Life - Hampshire programme – for the base case and the alternative solutions. A list of the stakeholders identified can be found in Appendix C.

Emails were sent to statutory and non-statutory stakeholder groups identified, to raise awareness of the consultation and the consultation materials, and to invite comments on the proposals.

The registered owners of the land for the Base Case site and the associated pipeline route options were identified and letters were sent either by first-class post or e-mail. Notices were also placed on site where the land was not registered and the owners could not be identified.

Notification letters were distributed to local residents in the Fawley area once consultation had started, following a request for direct communication by residents local to Fawley. Additional time for responding was provided through an extension to the consultation period.

The notification letters included the following information:

- The purpose of the non-statutory public consultation;
- The timescales of the non-statutory public consultation and the deadline for responding;
- A link to the virtual exhibition where consultation documents and the feedback form could be viewed; and,
- Provided the opportunity to request hard copies of the consultation documents and feedback form.

2.2.6. 2.2.6 Making information available

The consultation was promoted through various awareness raising exercises to reach interested parties that were not contacted directly, including customers within the Western Area and staff and contractors of Southern Water. The awareness raising activities that were undertaken are outlined in Table 3.

Table 3 Making information available activities

Activity	Detail
Water for Life – Hampshire Programme's website	All consultation documents were published on Southern Water's website: www.southernwater.co.uk/water-for-life-hampshire
Deposit locations	Due to Covid-19 restrictions in place during the time of the consultation period and to ensure the safety of the public it was decided not to provide in person deposit locations for viewing documents. However, online deposit locations were prepared with local authorities, so they were available if required.
Requests for documents	On request, Southern Water made available one copy of each of the consultation documents (consultation booklet and feedback questionnaire), free of charge, to those unable to access them via the internet, either on DVD or hard copy. Large print files of consultation documents were also available on request. To request a printed copy of the feedback form and consultation brochure, the public were able to write to: WATER FOR LIFE – HAMPSHIRE, PO BOX 5215
Public events	Face to face public events were not held due to social distancing guidance and legislation at the time of the consultation.
Virtual exhibition	This tool allowed users to virtually move around a 360-degree image of an information event and interact with materials, including banners, videos and technical documents, as if they were attending an exhibition. https://www.southernwater.co.uk/our-story/water-for-life-hampshire/our-consultation-water-for-life-hampshire

Throughout the consultation period, people were also able to contact Southern Water by emailing customerinsight@southernwater.co.uk or via the dedicated mailbox WFLH@southernwater.co.uk.

2.2.7. Raising awareness

During the consultation period, Southern Water used a range of communication channels to promote the consultation, provide details of where consultees were able to access information and the details of the

virtual public exhibition. Communications surrounding the scheme directed residents and stakeholders to the scheme's website to find out further information on the proposals. Table 4 outlines the awareness raising activity used during the non-statutory public consultation.

Table 4 Awareness raising activities

Activity	Detail
Hard to reach group engagement	Southern Water asked Local Authorities to provide details of hard to reach groups in their areas so these could be reviewed against the company's existing records and any additional groups added. Southern Water contacted hard to reach groups to advise them of the consultation and gain insight into the best way to raise awareness and consult with their members. Southern Water will also explore more traditional methods of engagement and consultation as part of future rounds of consultation on the Programme (e.g. face-to-face meetings and events), when COVID19 restrictions allow this type of engagement to resume.
Stakeholder communications	Southern Water sent notification emails and letters to statutory and non-statutory stakeholders relevant to the whole Programme. Additionally, landowners and residents in the Fawley area were issued with letters. Those who had previously expressed an interest in the scheme and provided us with contact information were also contacted.
Press / media activities	A press release was sent out on 8th February 2021 to local publications, radio broadcast and trade press. A copy of the press release is included at Appendix D. Advertorials were placed in local newspapers.
Scheme website	Southern Water updated the scheme's website with details of the consultation and to direct people to the virtual exhibition to have their say on the proposals.

Social Media	Southern Water shared communications across Southern Water's Facebook[6], Twitter[7] and LinkedIn[8] pages throughout the consultation period to raise awareness. In Southern Water's initial engagement with each of the county's local authorities, support was requested to help to improve the reach of digital communications. As a result, the consultation links were shared via numerous newsletters, mailing lists and social media channels, including the local authorities' social media channels. A similar request was also made to other organisations and individual stakeholders to share via their networks. A total of 14 posts were published, including a Facebook advertisement.

2.3. Approach to analysing consultation responses

Consultation responses were received from statutory bodies, non-statutory bodies and members of the public. Responses were received through both the feedback form and through direct communication via email correspondence.

A consultation response database was developed to log all responses to the consultation. The database was developed to enable categorisation of responses, identification of recurring issues, and to track and log consultation responses and feedback to consultation responses.

An initial high-level review of consultation responses was undertaken to determine 'topics' and 'issues' for categorising responses. Topics were identified based on the structure of the consultation feedback form, and the elements of each consultation response were assigned to a topic.

Once topics had been identified, the elements of each consultation response were assigned an 'issue'. The issues were primarily based on themes previously identified by Southern Water, and where additional issues were recurring, these were included in addition. The topics and issues identified are outlined in Table 5.

Table 5 Topics and Issues adopted for categorising

Topics	Issues

[6] www.facebook.com/SouthernWater
[7] www.twitter.com/SouthernWater
[8] www.linkedin.com/company/southern-water/

• Base Case • Desalination alternatives • Water recycling alternatives • Water transfer alternatives • Other suggestions • General comment on proposals • Consultation • Needs case	• Coastal change • Flood Risk • Water quality and resources • Environmental • Air Quality • Dust, odour, artificial light, smoke and steam and noise • Biodiversity and nature conservation • Landscape and visual impacts and seascape • Historic environment • Carbon emissions and energy • Traffic and transport • Climate change adaptation • Health • Socio-economic • Recreation • Cumulative impacts • Engineering design • Location / Land • Consenting regime • Cost • Other

3. Analysis of consultation responses

3.1. Overview

A total of 180 consultation responses were received during the consultation period (including the extension). Some consultation responses were received after the consultation had closed. These have also been considered in this document.

Responses to the non-statutory public consultation were provided in various formats. Table 6 provides an overview of the number of responses received in each format.

Table 6 Format of responses received

Response format	Number of responses received
Feedback form (online)	143
Direct communication (including emails and letters)	37
Total	**180**

Table 7 provides a breakdown of the consultation responses received from statutory and non-statutory stakeholder groups.

Table 7 Stakeholder groups that provided a consultation response

Statutory consultee groups	Non-statutory consultee groups
Prescribed and Statutory Consultees Environment Agency Natural England Historic England Associated British Ports Landowners Local residents in Fawley **Local authorities within WfLH Area** Hampshire County Council New Forest National Park Authority	Ashlett Sailing Club Blue Marine Foundation CPRE Hampshire Friends of the Ems Friends of the New Forest Hampshire and Isle of Wight Wildlife Trust Hampshire Chamber of Commerce Julian Lewis MP and Councillor Alexis McEvoy New Forest Association

Isle of Wight Council	New Forest East Constituency Labour Party
Test Valley Borough Council	Partnership for South Hampshire
Winchester City Council	Royal Society for the Protection of Birds
Gosport Borough Council	Salmon and Trout Conservation
Havant Borough Council	Solent Protection Society
South Downs National Park Authority	The British Horse Society
Parish Councils	Customers of Southern Water
Fawley Parish Council	Local businesses

Of the individual respondents who used the online feedback form to provide a consultation response and who provided details of their postcode, just over 50% were based in and around the Fawley area (i.e. the area surrounding the proposed location for the desalination plant and pipelines associated with the Base Case). A smaller proportion (25%) of respondents were located in the areas surrounding the water recycling and water transfer schemes north of Portsmouth, whilst a few respondents were located further afield in the southern region, with a couple of respondents located in the midlands and the north of England.

Figure 1 provides an overview of the geographical distribution of respondents to the online feedback form.

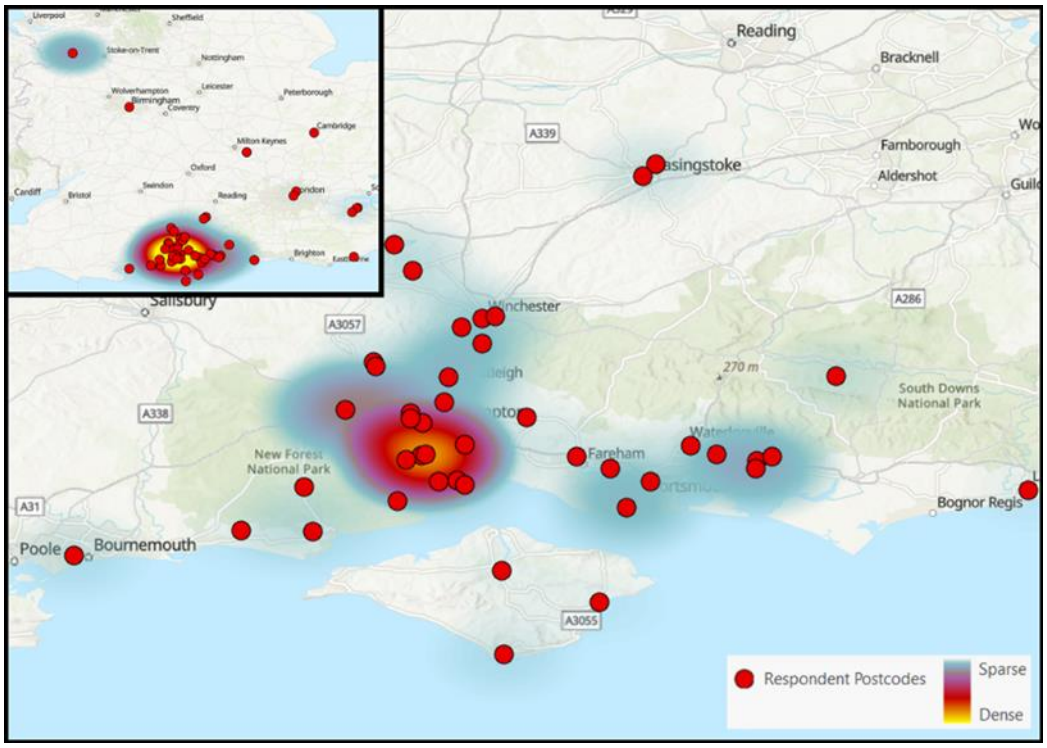


Figure 1 Geographical distribution of respondents to the online feedback form

3.2. Consultation responses - feedback form

A total of 143 responses were received via the online feedback form. This section provides a high-level summary of the responses received to each question on the form. Further detail on the key concerns arising through consultation are provided in Section 3.6 'Key Issues'.

Question 1. Which of the following best describe your interest in the Water for Life - Hampshire programme?
This question enabled respondents to provide multiple responses to describe their interest in the programme. Figure 2 provides a breakdown of the number of responses received against each category. Over 50% of respondents were customers of Southern Water, and a similar proportion of respondents noted that they took a general interest in what their water provider is doing.

A total of 67% of respondents stated that they lived within the local area of the programme, whilst 38% stated that they lived close to the proposed Base Case option. A similar proportion of respondents (13%) stated that they owned land within the area, owned or worked for a business within the area or were from an interested stakeholder group. A few respondents were responding on behalf of a stakeholder organisation, a local business within the area or owned land within the area.

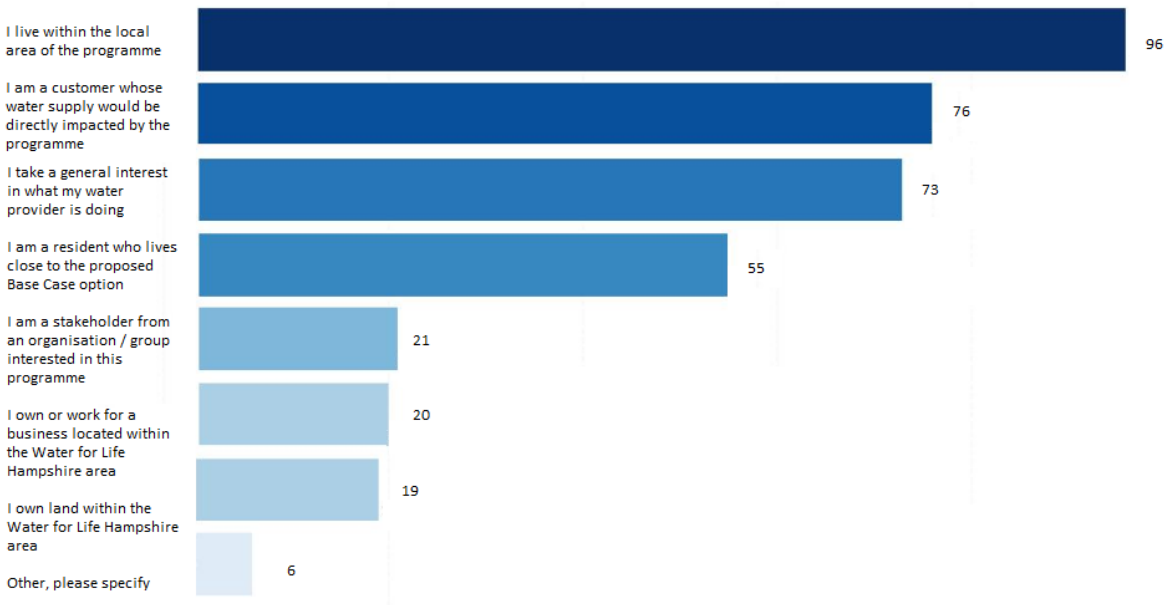


Figure 2 Respondents' interest in the Water for Life Hampshire programme

Question 2a. To what extent do you agree that the proposed Base Case would be an acceptable solution to the potential future water resource challenges in Hampshire?

The majority of respondents (51%) strongly disagreed that the Base Case would be an acceptable solution to the potential future resource challenges in Hampshire. Of these, 58% were located in the immediate Fawley area and 74% were in the immediate Fawley area or the surrounding New Forest area.
Over 25% of respondents strongly agreed or agreed that the Base Case would be an acceptable solution. Of these respondents, only 10% were located in the immediate Fawley area and 64% of these respondents were located in the Portsmouth area and further afield.

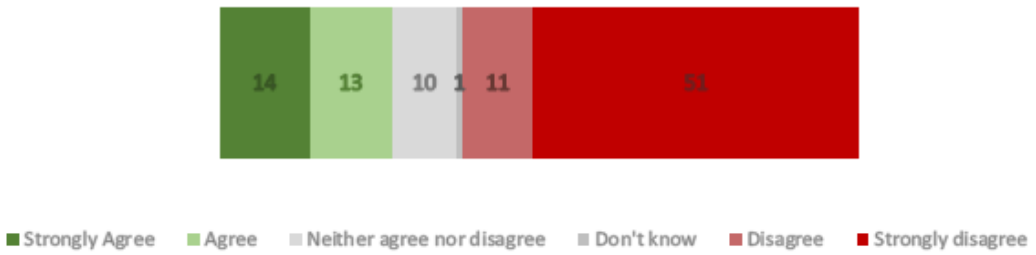


Figure 3 Respondent's view on proposed Base Case

Q2b. Please provide any comments in relation to the following areas to support your answer to question 2 - Options for abstracting water from the Solent; Information on the desalination plant infrastructure and the ways we are considering managing the cleaned wastewater (brine) removed from the seawater; The alignment of the underground pipeline, to connect drinking water produced by the project, to our network.

The key issues raised in response to this question were environment, marine, carbon emissions and energy, biodiversity and nature, and location. Comments relating to the environment were generally with regards to the location of the desalination plant in the National Park and proximity to environmental designations. Respondents were concerned about how the desalination plant and the pipelines would impact on the environment and additional information was requested to better understand this. The most reoccurring concern related to the impact of the brine on the marine environment.

Respondents noted that the desalination plant would require a high energy input and this would result in carbon emissions; questions were raised about whether this would be aligned to national and regional targets.

Q3. Do you have any comments to make in relation to potential impacts of the proposed Base Case? These could cover the following areas: water, environmental, energy, traffic and transport and people (health and socio-economic). (Please provide as much detail as you can)

Respondents tended to answer similarly to question 3 as to question 2b, with key issues raised relating to the environment, carbon emissions and energy and the marine environment. The impacts of both construction and operation on traffic and transport was also a key concern raised by some respondents.

Q4a. To what extent do you feel the desalination alternatives would be an acceptable alternative solution, should the Base Case not be delivered, to address potential future water resource challenges in Hampshire?

The proportion of respondents who agreed that the desalination alternatives (which are located in the same location as the Base Case) would be an acceptable alternative solution was similar to the proportion of respondents who disagreed. Almost 25% of respondents neither agreed or disagreed, indicating a range of views exist with regards to the acceptability of a solution.

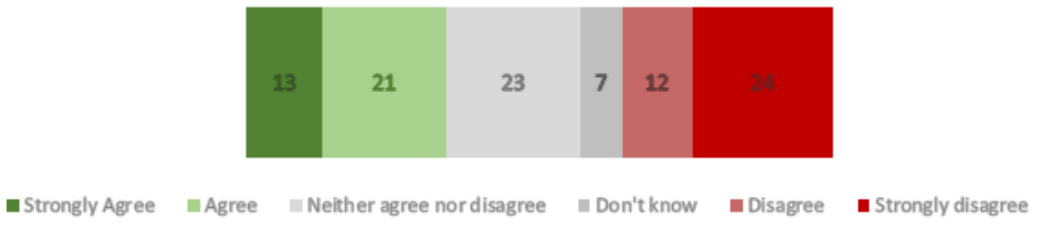


Figure 4 Respondent's view on desalination alternatives

Q4b. Please provide any comments to support your answer to Q4a.

Responses to Q4b tended to reflect responses on the Base Case, although it was recognised by some respondents that a smaller desalination plant would be less impactful.
The key issues raised in relation to Q4b were environment and water quality and resources. Comments relating to the environment tended to echo comments raised about the Base Case, however concerns were also raised by some respondents about the impact of the desalination alternatives on water bodies where abstraction and discharge would take place.

Q5. Do you have any comments to make in relation to potential impacts of any of the desalination alternatives listed?

The key issues raised in response to Q5 related to the environment and carbon emissions and energy. Similarly to responses to Q4b, comments tended to echo those raised about the Base Case with only a few specific comments about the desalination alternatives.

Q6a. To what extent do you feel the water recycling alternatives would be an acceptable alternative solution should the Base Case not be delivered, to address potential future water resource challenges in Hampshire?

A significant proportion of respondents agreed that water recycling alternatives would be an acceptable alternative solution, with only 12% indicating disagreement, and 28% in total responding 'don't know' or 'neither agree nor disagree'.

A total of 49% of the respondents who agreed that water recycling alternatives would be an acceptable alternative solution are located in Fawley and the surrounding area to the Base Case location

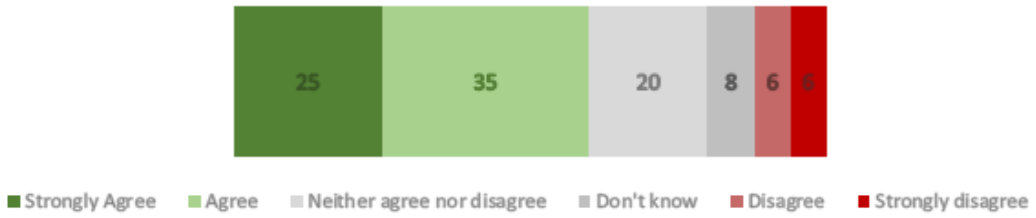


Figure 5 Respondent's view on water recycling alternatives

Q6b. Please provide any comments to support your answer to question 6a

The key issues raised in response to Q6b related to the environment, including with regards to disruption to the environment and the local community. Generally, respondents were supportive of water recycling due to the perceived likelihood of lower environmental damage. However, it is important to note that the consultation materials did not include any assessment work to confirm that this is the case.

Q7. Do you have any comments to make in relation to potential impacts of any of the water recycling alternatives listed?

The key issues raised in response to Q7 related to the environment, including with regards to disruption to the environment and the local community. Generally, respondents were supportive of water recycling due to the perceived likelihood of lower environmental damage. However, it is important to note that the consultation materials did not include any assessment work to confirm that this is the case.

Q8a. To what extent do you feel the water transfer alternatives would be an acceptable alternative solution, should the Base Case not be delivered, to address potential future water resource challenges in Hampshire?

A large proportion of respondents agreed that water transfer alternatives would be an acceptable alternative solution, with a similar proportion responding 'don't know' or 'neither agree nor disagree'. Of those who agreed, 64% are located in Fawley and the surrounding area to the Base Case location.

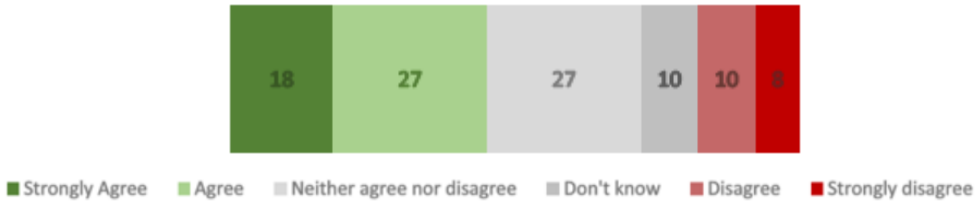


Figure 6 Respondent's view on water transfer alternatives

Q8b. Please provide any comments to support your answer to question 8a

The key issues raised in response to Q8b related to the environment, including with regards to disruption to the environment, the local road network and the local community. Some respondents perceived that water transfer alternatives would have a lower environmental impact and presumed that they would be less costly than the Base Case however concerns were raised about whether they offered a long-term solution. However, it is important to note that the consultation materials did not include any assessment work to confirm that the water transfer alternatives have lower environmental impacts than the Base Case.

Q9. Do you have any comments to make in relation to potential impacts of the water transfer alternatives?

The key issues raised in response to Q9 related to the environment, including with regards to disruption to the environment, the local road network and the local community. Some respondents perceived that water transfer alternatives would have a lower environmental impact and be less costly than the Base Case. However, it is important to note that the consultation materials did not include any assessment work to confirm that this is the case. Concerns were raised about whether water transfer alternatives offer a long-term solution.

Q10. Do you have any other comments, thoughts or concerns about the Water for Life –

Hampshire programme of proposed options you have provided feedback on?
The responses to this question tended to echo and / or emphasise concerns raised through the previous questions. Some key recurring themes were:

- Request for more detailed information about the proposal, its location and environmental impacts
- Supportive of consultation and a programme to improve management of water resources
- More awareness needed of consultation and the programme

Q11a. How did you hear about this consultation?

The most common response to Q11a was that respondents heard about consultation through social media, followed by 'other source' and received a letter / email. Some respondents heard about the consultation through family / friends, the newspaper and the local authority. A summary is provided in Figure 7.

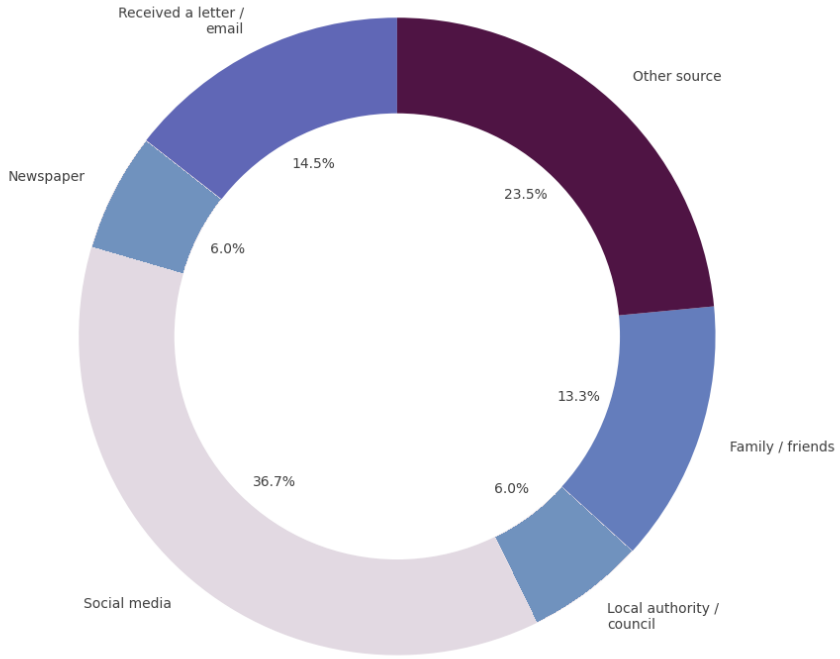


Figure 7 How respondent's heard about consultation

Q11b: Do you have any feedback on this consultation e.g. level of information provided, advertising etc?

A total of 30% of respondents who provided comments on the consultation noted that there had been insufficient promotion of the consultation or that they had not been directly informed about consultation and had found out about it through another source for example from residents on social media. Some respondents residing in the vicinity of the programme and Southern Water customers suggested that they should have received direct communication.

It was noted by 9% of respondents that the virtual engagement platform was difficult to navigate, although 5% noted that the platform provided a good use of technology in response to this question.

3.3. Consultation responses - direct communication

Each of the consultation responses was read in full and the comments raised are being considered by the Programme team. Key matters raised in support and in objection to the scheme have been identified and a summary is provided in the sub-sections below.

3.3.1. Individual responses

Sixteen individual responses were provided by email from local residents and interested members of the public about the Base Case and alternative proposals. The majority of the individual responses received disagreed with the Base Case due to its location and raised concerns about the approach taken to consultation / engagement with local residents. The key issues raised in the individual responses related to:

- Alternative proposals to the Base Case
- Environmental impacts of construction
- Climate change and sustainability
- Engagement with local residents and landowners
- Level of detailed information available
- Approach to optioneering and evaluation of alternatives
- Impacts on local businesses
- Need case
- Cost

The level of engagement undertaken with residents on the Base Case to date and during the first few weeks of consultation was a key concern to those who provided a direct response. Concerns related to the quality and quantity of the consultation materials provided by Southern Water, and in particular the lack of technical detail about the location, size and scale of the Base Case proposals.

The environmental impacts of the Base Case were also a key concern in the individual responses. Concerns were raised about the environmental information and the assessments completed to date to inform the Base Case. It was requested that Southern Water undertake more assessment work to demonstrate that the proposed desalination plant is a sustainable water supply solution. The individual responses expressed concerns about the infrastructure associated with the Base Case being energy intensive and a high carbon emitting water supply solution to existing environmental and supply problems. The discharge of brine and the impact on existing and future habitats were key concerns raised about the natural environment.

Alternative proposals to the Base Case and questions about cost were other key issues raised in the individual responses. Concerns relating to cost focused on the investment required to deliver the project. Water recycling alternatives and alternative locations for a desalination plant are some of the alternative proposals recommended in the individual responses. Concerns were raised about the scheme selection process completed to date to identify the Base Case as Southern Water's preferred solution.

3.3.2. Local Planning Authorities

Consultation responses were received from eight Local Planning Authorities. The eight Local Planning Authorities who submitted a consultation response were:

- Gosport Borough Council
- Hampshire County Council

- Havant Borough Council
- Isle of Wight Council
- New Forest National Park Authority
- South Downs National Park Authority
- Test Valley Borough Council
- Winchester City Council.

Consultation responses received from local planning authorities included both supportive comments and objections in principle to the Base Case. In general, the Local Planning Authorities requested that Southern Water work closely with them as the Water for Life - Hampshire programme progresses.
Concerns about the engagement completed to date with Local Planning Authorities about the Base Case were expressed. Several of the Local Planning Authorities stated that they are unable to provide substantial comments on the merits and impacts of the Base Case and alternative solutions due to the level of detail provided by Southern Water to date. Further detail was requested from the Local Planning Authorities to support their review of the Base Case and the alternative solutions.

Consultation responses acknowledged that Hampshire faces significant water supply challenges in the future. This included an acknowledgement that existing water and drainage infrastructure will be unable to meet future demand.

Some consultation responses stated a preference for the alternative solutions due to the likely negative environmental impacts created by the Base Case. This included concerns about the anticipated negative impact on biodiversity, climate change, landscape and water environments, along with the high energy usage required. Reference was made to the climate emergency and national and local targets for net zero. Alternative solutions included water recycling schemes and alternative locations for the desalination plant.

3.3.3. Parish Councils

One parish council response was received from Fawley Parish Council.
Fawley Parish Council objected to the Base Case in principle due to the location and the environmental sensitivities of the area. Concern was raised that not enough effort had been made to consider alternative locations. Concerns were also raised relating to the level of information available at this stage.

3.3.4. Other Statutory Consultees

Consultation responses were received from three regulatory bodies in relation to the Base Case:

- Environment Agency
- Historic England
- Natural England.

The Environment Agency provided comments on the method of consultation, the Base Case, the alternatives and wider programme. The visual display of documents in the virtual engagement room was welcomed however it was noted that slides on the alternative options would have been helpful to be presented in the virtual room.

Clarification was requested about whether the alternative options are being given equal status to the Base Case in the ongoing investigations. In relation to the Base Case, the Environment Agency emphasised concerns they had raised prior to non-statutory public consultation about the widely designated

environmentally sensitive area, and the management of brine discharge. The Environment Agency noted the need for additional information to be shared, in particular estuarine modelling data.

Natural England considered that there were significant omissions in the consultation documentation with regards to the scale and extent of potential impacts likely to arise from the Base Case and alternative solutions. Whether the Base Case (and alternatives) could meet the required environmental legal tests was also questioned, including those associated with the Habitat Regulations and the Wildlife and Countryside Act 1981 (as amended). It was noted that the level of information, and in particular environmental information provided in the consultation brochure, did not enable an informed position to be provided. Natural England also made reference to the potential carbon impacts of the Base Case.

The response from Historic England focused on the options for pipeline routing across the Base Case and alternative solutions, with a particular focus on the pipeline routing associated with the Base Case. Concerns relating to the pipeline routing for the Base Case centred around the presence of scheduled monuments in the area, and the archaeologically rich landscape of Beaulieu Heath. Historic England noted that the pipelines should be routed around the monument boundaries.

3.3.5. Non-Statutory Consultee Groups

Consultation responses were received from 14 non-statutory consultee groups. As each group tended to have a particular area of interest, the comments across these groups were broad. Key comments received included:

- A preference for alternative water supply solutions
- Concerns about the Base Case's impact on existing infrastructure
- Concerns about the Base Case and environmental impacts
- Disagreement with alternative solutions provided
- Does not consider the Base Case to be viable or necessary
- Further work is required to inform the Base Case delivery
- Objection to the Base Case in principle
- Supportive of the Base Case in principle.

3.4. Key Issues

Through the consultation analysis, some key recurring issues have begun to emerge. The 'topics' and 'issues' identified in Section 2.3 of this report have been used to analyse the consultation responses. This section provides a summary of the key points raised against the 'topics' and 'issues' identified.

Across the consultation responses, the most recurring 'issue' was 'environmental' which includes where respondents have raised points about the environmental impacts. Figure 8 provides a breakdown of the frequency of 'issues' raised throughout the consultation responses. Where respondents raised multiple issues, this has been accounted for in the graph. Where respondents raised the same issue multiple times, this has been discounted. Some responses were labelled as 'environmental' and a more specific issue e.g. construction impacts or water quality and resources. In these cases, the responses have been accounted for in Figure 8.

After 'environmental', the key recurring issues related to water quality and resources, carbon emissions and energy and marine (particularly the perceived potential impacts of brine on the marine environment).

Where comments have been categorised as ‘other’ these comprised of general comments for example a general statement relating to water shortage or a general supportive / unsupportive statement relating to the Base Case proposals.

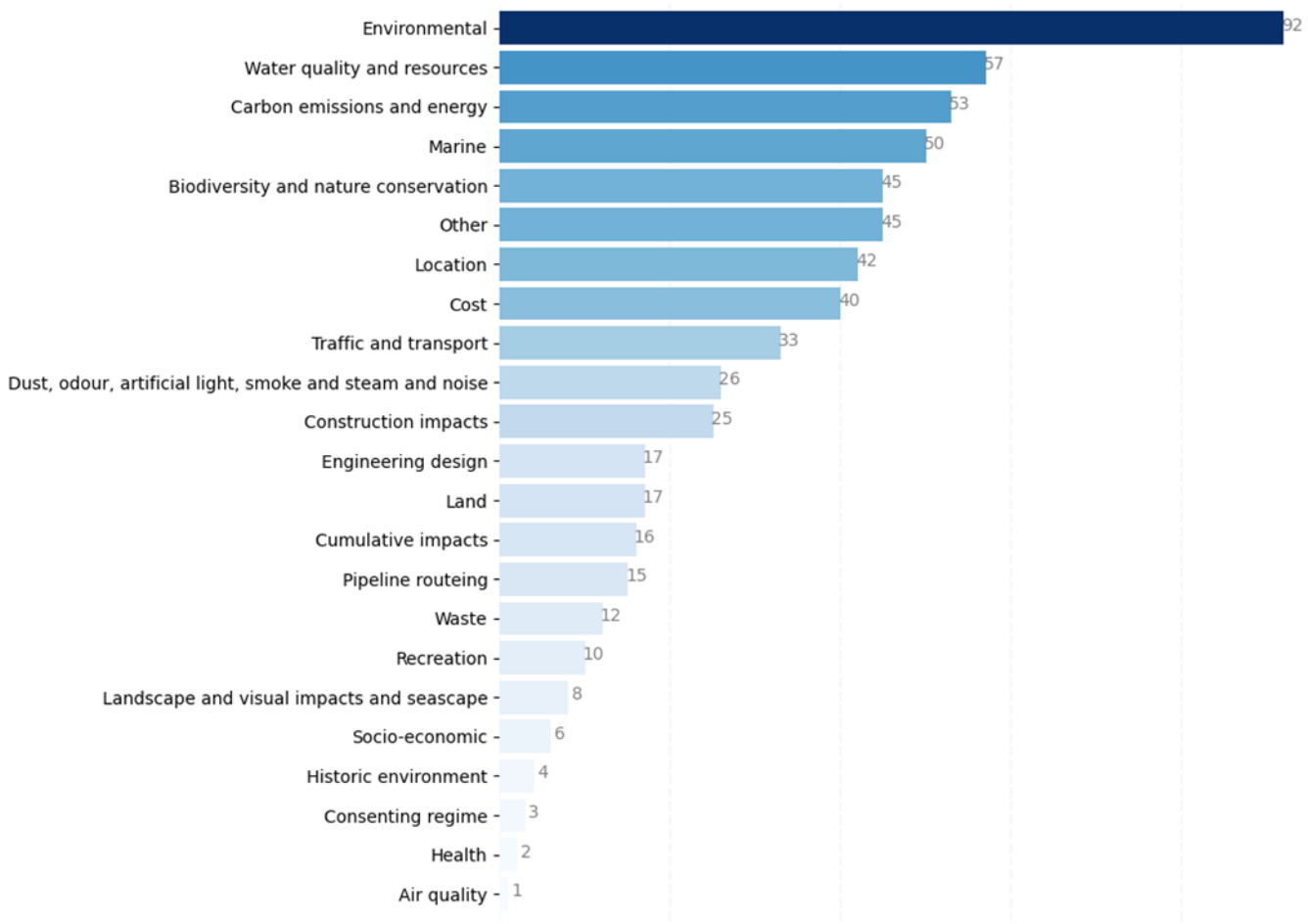


Figure 8 Key issues raised

3.4.1. Base Case (desalination)

Environmental

Impact of brine on the Solent

A total of 24% of individual respondents raised concerns about releasing the wastewater (brine) back into the Solent, increasing to 35% when taking into account statutory and non-statutory group responses. Concerns mainly related to the impact on the marine environment (with particular reference to the Solent and Dorset Coast Special Protection Area), and some respondents noted that the Solent is already in an ‘unfavourable’ condition due to poor water quality which could make it more vulnerable to the impacts of brine. Concerns about potential impacts included the potential to alter the chemical composition of the water through the release of brine, with associated impacts on the marine wildlife.

Some respondents questioned whether the Solent was a viable location for the release of brine due to its shallow depths and suggested alternative locations may be more suitable to release the brine due to larger

tidal shifts and deeper waters. A few respondents queried whether the release of brine would affect the tidal flow.

Questions were also raised about whether the discharge of brine would impact on the bathing water quality and recreational activity on the Solent.

Impact of abstraction and discharge pipes

Some respondents showed concern about the impact the abstraction and discharge pipes would have on the local environment. In particular, this included the impact of pipe construction on the seabed off Calshot, and the potential for fish entrainment in the pipelines.

Waste to landfill

Some individual respondents noted that the desalination plant would involve sending concentrated solid matter waste product to landfill and raised concerns about this. Suggestions were made to explore other options for waste disposal, along with requests for further detail about the content of the solid waste and location for disposal.

Traffic and transport

Concerns were raised by some respondents about the impact of the pipeline routing on the A326. It was noted that there is existing pressure on the road, particularly at peak times, and that this is only due to increase as other developments in the Local Plan are brought forward, including the Fawley Waterside housing development[9]. Confirmation was requested that the development would not result in closure, diversion or traffic management measures on the A326 due to its use for employees of businesses in the area including the Budds Farm Wastewater Treatment Works and ESSO.

Some respondents were accepting of short-term construction impacts (and associated noise impacts) on the local road network. Other respondents raised general concerns about the impact of the construction of the desalination plant on the local road network, and the associated air quality and noise impacts which would affect local residents.

Landscape, visual impacts and seascape

Some respondents raised concern about the landscape and visual impact of the desalination plant and requested clarity on the proposed design. Of particular concern in this regard was the proximity to the New Forest National Park, the coast and the surrounding area.

Historic environment

The historic environment was a feature of some respondent's comments. In particular, reference was made to the potential for pipeline routing to impact upon heritage features (both scheduled and non-scheduled) and the need to ensure appropriate mitigation. It was noted that the excavation associated with the pipeline

[9] http://future.fawleywaterside.co.uk/the-masterplan/

routing may on the other hand provide opportunities for developing greater understanding of the heritage of the local area.

Air quality, dust, odour, artificial light, smoke and steam, and noise

Many respondents raised concerns about the noise and vibration associated with the operation of the plant and the impact on residents, in particular due to the pumping station. Concerns were expressed relating to cumulative noise impacts with other developments in the area and impacts of noise on biodiversity. Additional information was requested in relation to noise.
Light pollution was also mentioned, and associated impact on terrestrial ecology and local residents, along with the air quality impacts of the operation.

Comments relating to construction impacts have been referenced in the section below.

Biodiversity

Where respondents provided comments relating to biodiversity, these mostly related to the impact of abstraction and discharge on the marine environment and in particular the European designated sites. Comments relating to biodiversity tended to be quite general, with respondents noting that the proposed development would impact on the wildlife, particularly in the New Forest National Park.
The Habitat Regulations were referenced in some consultation responses, citing the need to ensure that there are no feasible alternative solutions that would be less damaging.

Access and recreation

A few respondents noted the potential impact of construction on public rights of way, in particular those in regular use by horse riders, walkers and cyclists. A concern was that some of the pipeline routing options would sever public rights of way, affecting safe access to the New Forest and resulting in users to use the local road network which itself would be affected by greater levels of construction traffic resulting in safety concerns.

Socio-economic

It was recognised by some respondents that the desalination plant would likely bring investment and employment opportunities. Some respondents raised concern however that local businesses would be affected by the presence of the desalination plant, and others queried the impact of the brine on fish stocks and how that could impact the local fishing industry. The impact of the brine on the oyster beds in the Solent was of some concern.

Climate change and carbon emissions

Many respondents raised concerns about the perception of high energy usage associated with a desalination plant. These concerns primarily related to the associated carbon output and associated cost.
Based on the perception of high energy demand, some respondents queried whether a desalination plant would be aligned to both national government and local authority targets for net zero carbon. It was also queried whether a desalination plant would be aligned to Southern Water's target as an organisation to be carbon neutral by 2030.

Some respondents raised questions about how the desalination plant would be supplied with energy including reference to low carbon energy sources and working with local community energy groups.

Location

Desalination plant

Significant concerns were raised by some respondents about the proposed location of the desalination plant. Whilst some respondents noted that details of the precise location, size and design of the plant should be provided to enable an informed comment, others raised concerns about the general area within which the desalination plant is proposed.

The most common concern raised relating to the location was the siting of the plant within the New Forest National Park due to the associated environmental impacts, followed by the proximity to environmental designated areas. The responses included suggestions that the plant should be located on a brownfield site or located away from residential areas and Ashlett Creek. It was also noted by some respondents that the currently proposed location would result in further urbanisation of the New Forest Solent Waterside and impact on the Fawley Waterside redevelopment and that the road capacity in this area was already restricted.

Pipeline to transfer to network

Some respondents expressed concerns about the pipeline routing to transfer the drinking water to the Testwood Water Supply Works. This primarily related to the disruption likely to arise for residents and businesses during construction, particularly to those in the Waterside area, and in combination with other developments in the area. The need to avoid archaeological sites was noted, along with reference to impacts on the Fawley branch railway line.

Cumulative impacts

Concerns over cumulative impacts with other existing and proposed developments in the area were raised throughout the consultation responses.

Some respondents made reference to the Fawley Waterside Development and, in particular, the combined impact of the two developments on the local road network, which is already considered to be under pressure, along with the impacts on the landscape which is becoming increasingly industrialised.
Noise was raised as a concern by some respondents, making reference to existing developments which already result in noise disturbance to local residents, and the additional noise that would arise through the proposed pumping station

Cumulative impacts with the Solent Freeport, A326 road improvements and the potential re-opening of the Fawley railway line as a passenger line were also noted.

Construction impacts

Where respondents cited concerns and raised queries relating to construction impacts, the most common responses related to the disruption to local residents associated with the proposed development, the impact on the local road network and the potential disruption that pipeline routing would cause.
Respondents requested further information about the likely disruption, and some raised concerns about the impact on the environment and the likely noise and air quality impacts.
Some respondents recognised that construction impacts would be short term and either mitigated or managed, and others noted that the disruption would be excessive, particularly for local residents and users of the local road network.

Other

Cost

Many respondents raised concern about both the upfront and long-term cost associated with the desalination plant. Clarification was requested about whether the costs would be passed on to customers through water bills and queries were raised by a number of respondents about whether the perception of high associated cost would be economically viable based on the understanding that the plant would be used at full capacity only intermittently.

Water quality and resources

Some respondents queried whether the water produced by the desalination plant would be up to drinking water standard, particularly as the Solent experiences heavy shipping activity. Other respondents noted that the water would be softer, which would be of benefit to Southern Water customers although engagement would be needed as residents are used to hard water and some have water softeners installed.

3.4.2. Desalination alternatives

Respondents expressed similar concerns about the desalination alternatives to that of the Base Case, although some respondents recognised that the impact from an environmental, carbon and cost perspective would be lower. Concerns were raised about the location in the National Park and at Ashlett Creek, along with the potential to impact environmentally designated areas and the local transport network in particular. Respondents suggested that further information should be made available and an assessment of the environmental impacts provided.

3.4.3. Water recycling alternatives

On the whole, respondents were supportive of water recycling as an alternative to desalination, with particular reference made to the perceived lower environmental disturbance, lower cost and energy usage. However, some respondents noted that the limited information provided in the consultation brochure made it difficult to provide a fuller opinion, and requested additional design information and environmental impact information. There was concern raised about the alternative B2 proposal to release recycled water into the Upper Itchen, and abstraction impact on the chalk rivers.

Some respondents raised similar concerns to those raised about the Base Case including disruption to the community during construction, financial implications and alignment with climate change targets.
A few respondents queried whether the water would be of an acceptable quality for drinking.

3.4.4. Water transfer alternatives

Comments varied between respondents who compared the water transfer alternatives with the Base Case, and respondents who provided comments independently on water transfer alternatives.

Of the respondents who compared the water transfer alternatives with the Base Case, many considered the alternatives would have fewer environmental impacts and lower financial implications. Some respondents raised similar concerns to those raised about the Base Case including construction impacts on the environment, community and local road network.

Whether the water transfer alternatives would provide long term availability to Southern Water customers was questioned, in particular around whether water would continue to be transferred and therefore available to Southern Water customers during a drought period. The long term sustainability of the local rivers and their spring sources was queried, in particular whether there would be an impact on the spring sources which supply the River Ems (a river that, it was noted, is already sensitive to abstraction).

3.4.5. Consultation

The majority of respondents who provided comments on the consultation noted that they had not been directly informed about the consultation and had found out through a second party (such as another resident on social media or protesting leaflets through their door). Some respondents who are Southern Water customers suggested that information should have been provided to them directly, and some local residents felt that they had intentionally not been directly consulted.

Whilst some respondents felt that the online platform was effective, more respondents found it difficult to navigate the platform, particularly on a tablet or mobile phone.

Some respondents said they found the consultation brochure to be too long, repetitive and complicated. Some respondents suggested additional information (such as more detailed environmental information and more specific location information) should have been provided to enable an informed response.
There were supportive comments on the consultation from some respondents who welcomed the engagement received to date.

3.4.6. Needs case

Some respondents questioned whether additional water resources are necessary and suggested that there is sufficient rainfall in the UK to manage water supply. Some respondents suggested that there were alternatives to large scale intervention which meant that a desalination plant is unnecessary. Alternatives included a focus on leakage, improving water usage efficiency, and improving storage of water.
There were some respondents who questioned the need for a desalination plant based on a 1-in-200-year drought.

3.4.7. Other suggestions

Some respondents provided alternative suggestions to the Base Case and the alternative solutions. The suggestions included:

- Repairs to existing infrastructure to reduce leakage
- Storage of rainwater in reservoirs or tanks
- Focus on reducing demand and increasing efficiency of water usage
- Water recycling including grey water
- Transferring flood water or other water resources from elsewhere
- A national approach to water resource management
- An integrated catchment management approach
- Use of local groundwater
- Incorporating opportunities to improve nitrates issue

4. Summary and next steps

This Consultation Feedback Report provides an overview of the consultation responses received during non-statutory public consultation which ran from 8th February to 16th April 2021. The Report identifies key issues raised, highlighting areas which were of particular concern to consultees.

Southern Water will hold further consultation on its scheme proposals before submitting a consenting application, which will be used to gather more feedback to inform the development of its proposals.

The scope of this document does not include how Southern Water has considered and had regard to the consultation feedback. This will be included at the next appropriate stage in the consenting process.

In the meantime, Southern Water will continue to engage with stakeholder groups including local communities to ensure continued dialogue and relationship building. A range of channels will be employed, including technical working groups, briefings and one-to-one meetings.

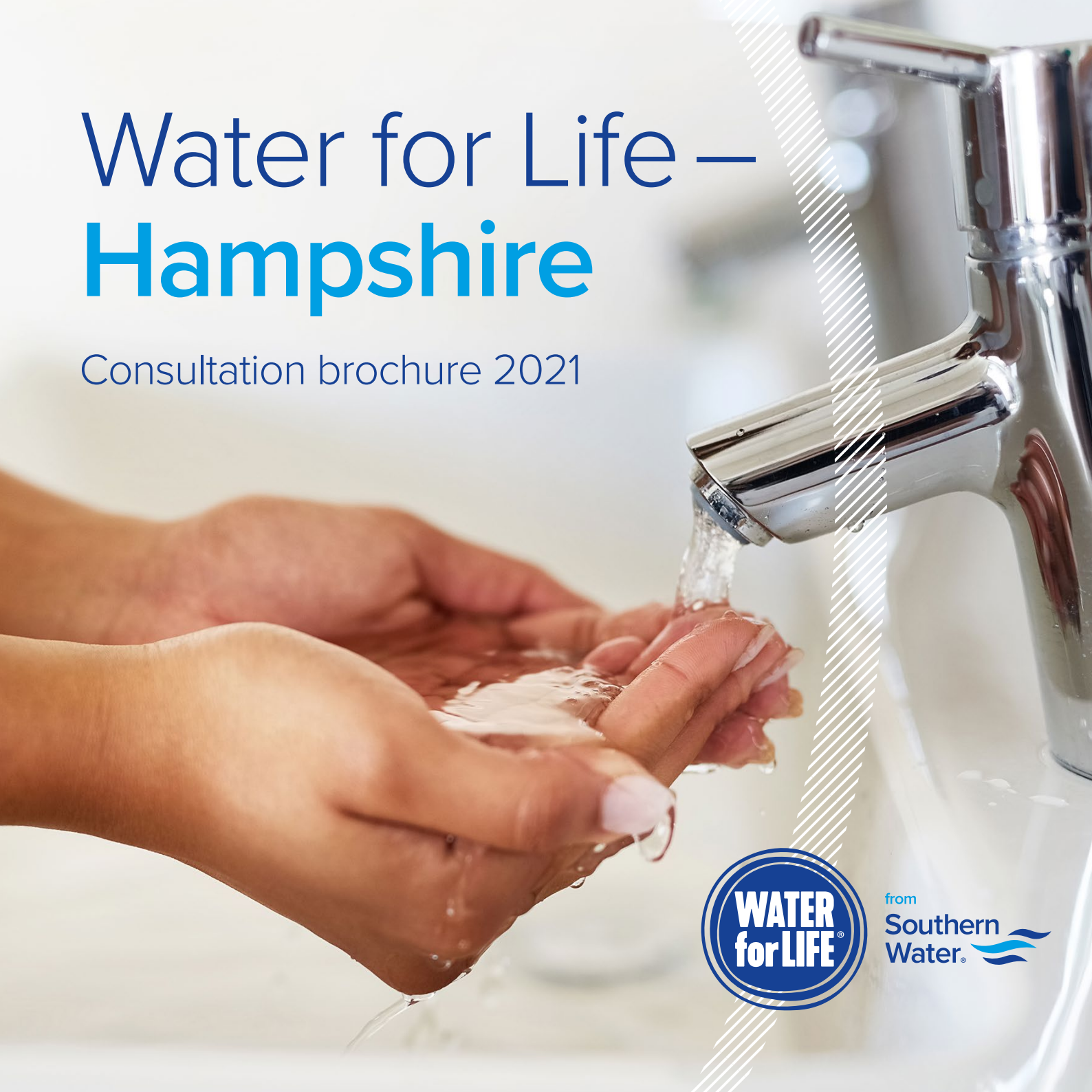
Appendix

A	Consultation Booklet
B	Feedback Form
C	List of Stakeholders
D	Press Release

Appendix A: Consultation Booklet

Water for Life – **Hampshire**

Consultation brochure 2021



from Southern Water

Contents

Foreword from Ian McAulay 3

About Southern Water 4-7

About Water for Life – Hampshire 8-9

About this consulation 10-11

The story so far 12-15

Our proposals 16-28

Environmental context 29-33

What our proposals mean for you 34-41

Next steps 42-43

Glossary 44-46

Foreword from Ian McAulay, our CEO

Thank you for taking the time to engage with our Water for Life – Hampshire programme.

It's our response to the combined impacts of population growth and climate change and will help keep the county's taps and rivers running for us and future generations.

In our consultation documents you'll see how we plan to transform the way we source, treat and supply water across Hampshire and the Isle of Wight over the next decade. You'll also see the opportunities for you to contribute your views to help us shape our plans.

Water is a precious, and increasingly scarce, resource for people and wildlife. It's essential that we strike the right balance between protecting the environment and maintaining supplies for customers.

In Hampshire, that balance means taking less water from the sensitive chalk stream habitats of the Test and Itchen rivers and more from sustainable, resilient sources instead.

People need water and it's our duty to supply it, but as custodians of the environment it's also our responsibility to do so in a way that protects the natural world and also enhances it where possible.

We are one of the best performing water companies for leakage, but our plans include going even further and reducing leakage by 15% by 2025, 40% by 2040 and 50% by 2050. We are also improving water efficiency by helping people reduce their use to below 100 litres a day.

We are also creating a new network of water mains across Hampshire to increase resilience.

Investigating and delivering new sustainable, resilient sources of water comes at a cost. Treatment techniques such as desalination and water recycling are already used to great effect elsewhere in the world and are capable of providing an almost limitless supply of water.

They are expensive to build and run, compared with traditional abstractions, but if you consider the environmental and natural capital evaluations, these technologies allow us to do more than just take from the environment – they allow us to give something back.

This ethos of added value, of environmental net gain, is central to the vision and commitment we have outlined in Water for Life – Hampshire.

It's our promise to work with regulators, customers, environmental groups, local authorities, industry, landowners and others to create a resilient water future for the South East. But more importantly, it is about performing our duties in a way that benefits people and our planet and I welcome you in joining us on this journey.

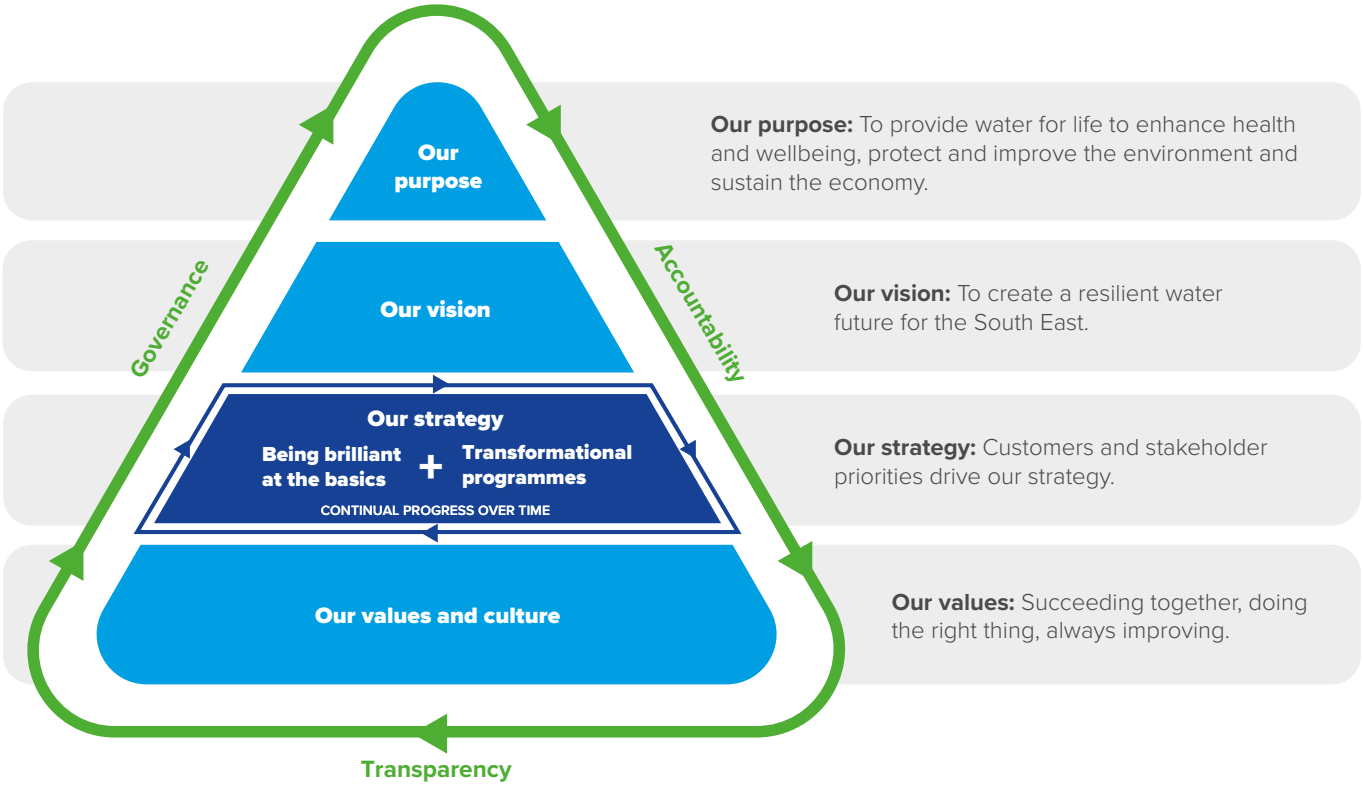
About Southern Water

Southern Water supplies water and wastewater services to over four million customers in the South East.

Our operations cover Hampshire, Kent, Isle of Wight and East and West Sussex, traversing over 700 miles of coastline, national parks, forests and Areas of Outstanding Natural Beauty.


Dartford
Gravesend
Chatham
Gillingham
Isle of Sheppey
Herne Bay
Ramsgate
SUTTON & EAST SURREY WATER
Sevenoaks
Maidstone
Canterbury
Faversham
Deal
Tonbridge
SOUTH EAST WATER
KENT
Dover
Ashford
Tunbridge Wells
Folkestone
Crawley
Weir Wood
Bewl Water
AFFINITY WATER
EAST SUSSEX
Haywards Heath
New Romney
Darwell
Burgess Hill
SOUTH EAST WATER
Powdermill
Lydd
Hastings
Lewes
Bexhill
Hove
Brighton
Eastbourne
Water supply and wastewater treatment areas
Wastewater treatment areas only
Water supply only areas
Designated bathing waters
Reservoirs

About Southern Water



Our vision, values and purpose

As a water undertaker, we must meet our statutory duties to prepare and maintain a Water Resources Management Plan (WRMP) under section 37A of the Water Industry Act 1991. Our WRMP must set out how we will manage and develop water resources to meet our supply obligation for at least the next 25 years, and it must be renewed at least every five years.

Our WRMP 2019 sets out our Preferred Strategy to meet supply obligations (see: southernwater.co.uk/our-story/water-resources-planning/water-resources-management-plan-2020-70) and we are using all best endeavours to deliver on this strategy for our Western Area in Hampshire. Delivering new water resource infrastructure in Hampshire is part of the Preferred Strategy.

Our Business Plan 2020–25 underpins our approach (see: southernwater.co.uk/our-story/our-plans-2020-25/our-business-plan-2020-25).

About Southern Water

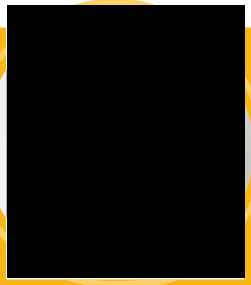
Protecting the environment

The environment is at the heart of everything we do and we recognise that, as a water company, we are reliant on the natural environment to deliver our essential services to our customers.

We are proud to play a leading role as a custodian of the environment and we are working hard to ensure that protecting and enhancing the natural world remains central to all our decision making. We know that investing in more natural and sustainable solutions can deliver wider benefits for wildlife, customers and communities. These include reducing flood risk, reducing our carbon footprint, improving biodiversity and improving health and wellbeing through access to nature.

Over the next five years we plan to invest around £800 million in our environment programme. This will help us improve nearly 400km of our region's rivers and many of its bathing waters. We're working with a range of partners to ensure that we're doing the right thing now and for future generations.

We, and other water companies in the UK, have also committed to become carbon neutral by 2030. This promise was made under the industry body Water UK's Net Zero commitment and is part of our planning and solution development for Water for Life – Hampshire.



"We put the environment at the heart of our business because we, and our customers, want to protect and enhance the natural world around us. Our climate is changing and it's vitally important that we take the right decisions now to ensure that in the future our children and grandchildren can enjoy both a fantastic environment and a clean and plentiful water supply."

Toby Willison, Director of Environment and Corporate Affairs

Chalk stream

About Water for Life – Hampshire

The challenge we face

Hampshire faces water shortages. New water sources are necessary to keep local taps and rivers flowing today and in the future. Our Water for Life – Hampshire programme will create greater resilience, especially during dry weather and drought.

Our world is changing – the twin pressures of more extreme weather events and a growing population are stretching our finite natural resources, including water. This challenge is felt strongly in the water-stressed South East where the population continues to grow.

In Hampshire, a key challenge we face is ensuring protection of the environment while maintaining and improving the water supply. This follows new rules over how much water we can take from the county's two main rivers – the Test and Itchen. We have entered into an agreement with the Environment Agency, committing to implement the changes it has made to our abstraction licences – rules governing how much water we can take from the environment to supply to the public – by 2027 in order to ensure the rivers are further protected. Reductions to our abstractions mean we now have a shortfall of about 190 million litres of water a day in south Hampshire during a 1-in-200-year drought event, putting the population at risk of water shortage when the weather is dry. Further licence changes are expected which, during a drought, could lead to the loss of more water required to supply Hampshire and the Isle of Wight.

This means we need to find new sources of water in order to protect these sensitive habitats. The Test and Itchen are among the finest examples of chalk streams in the world – rare ecosystems that support an abundance of wildlife such as salmon, trout, crayfish and dragonflies. However, they also supply water to more than 700,000 people across Hampshire and the Isle of Wight. A new balance must be struck in order to keep these rivers and customers' taps flowing – especially during a drought.

In the short term, drought orders and drought permits can be employed where necessary to maintain supplies during periods of drought, however longer term solutions are needed to make up the shortfall.

Our current plan for making up the shortfall is set out in our final Water Resources Management Plan 2019 (WRMP19) and includes building our "Base Case".

We refer to the "Base Case" throughout this consultation. It describes the current preferred solution, as outlined in WRMP19, to install a 75 Ml/d (million litres per day) desalination plant with direct input into our network at Testwood Water Supply Works. This was selected following extensive consultation with customers and stakeholders as part of WRMP19, which was then approved by the Secretary of State for Environment, Food and Rural Affairs.

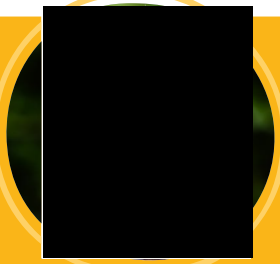
The site outlined in our WRMP is at Fawley, on land to the west of the former power plant and to the south of our Ashlett Creek Wastewater Treatment Works.

We have a legal obligation to explore all options to deliver the Base Case, but we also have an obligation to investigate back-up alternative options under WRMP19, and our regulators have asked us to investigate these alternatives as back-ups to desalination in case it proves undeliverable.

Accordingly, this document outlines our proposal for the Base Case and also provides information on the alternative options we are investigating in parallel, should the Base Case not be deliverable.

About Water for Life – Hampshire

The challenge we face



"Water for Life – Hampshire is our commitment to provide more resilient, sustainable water supplies that protect the environment while catering for a growing population. This wide-ranging programme will reduce reliance on Hampshire's chalk rivers and help protect the wildlife that lives in and around them. The result will be a resilient supply of water for customers and the environment, whatever the weather."

Mark Wintringham, Head of Delivery

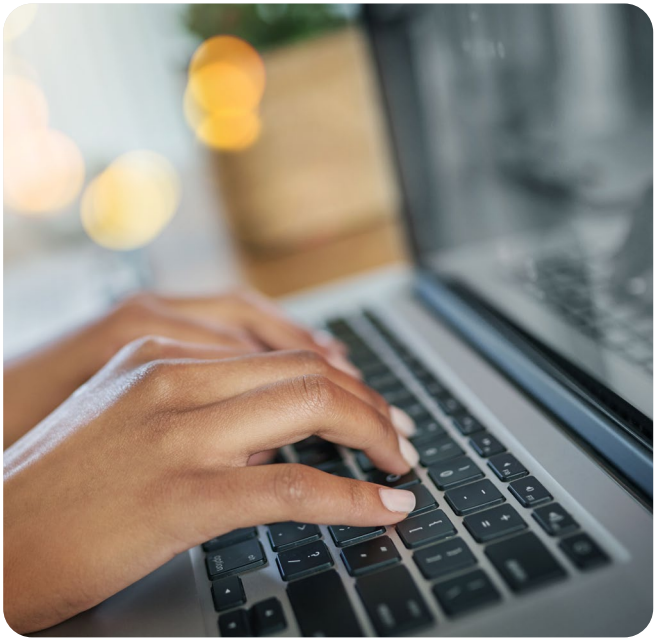
Lower Test © Jon Milliken

About this consultation

Welcoming your views

The purpose and intent of our consultation exercise is to consult on our Base Case as presented in the WRMP19 Preferred Strategy, which we are obliged to make all best endeavours to deliver. As required by WRMP and the RAPID Gated process, we are also considering alternative options in the event that the Base Case should prove not to be deliverable.

At this stage, we are not consulting on a 'choice' between the Base Case and the alternative solutions, as this strategy was already the subject of consultation in WRMP19. However, comments in relation to the Base Case and our alternatives are welcomed to help us to develop the Base Case and the alternatives. Should the Base Case not be deliverable, we will undertake further consultation on our alternative solutions.



We are seeking views on the following elements of the Base Case, where we are considering options for the most appropriate form of development to include as part of the project:

- Options for abstracting water from the Solent
- Information on the desalination plant infrastructure and the ways we are considering managing the cleaned wastewater (brine) removed from the seawater
- The alignment of the underground pipeline, to connect drinking water produced by the project, to our network

The wider aims of this consultation are to:

- Inform impacted and interested stakeholders and customers about the development of the Water for Life – Hampshire programme
- Gather feedback from stakeholders and the community on elements of the Base Case to help inform the development and design of our proposals
- Gather feedback from stakeholders and the community on alternative solutions, should the Base Case not be deliverable
- Identify key issues and concerns about the impacts and effects of our proposals and identify potential ways to help mitigate them

About this consultation

Welcoming your views

In light of COVID-19, we are taking a digital-first (online) approach to consultation and making use of technology to bring the scheme to life for customers and stakeholders. This is embodied by the Virtual Engage platform provided by our supplier Arup, which allows people to navigate a virtual consultation room and browse information boards, watch films and leave feedback – just as they would be able to in a physical drop-in session. This virtual room is available on our website - via the link in the box to the right.

We will provide one copy of the consultation brochure and feedback form, free of charge, to those unable to access them via the internet. These, and large print files, can be obtained by writing to us.

In preparation for this consultation, we have engaged with local authorities to help us identify hard to reach groups. We are contacting these groups individually to seek their advice on the best way of raising awareness and consulting with their members.

We will also explore more traditional methods of consultation as part of future rounds of consultation on the project (e.g. face-to-face meetings and events), when it is safe to do so.

In our initial engagement with each of the county's local authorities, we have asked for their support in helping us improve the reach of our digital communications. As a result, the consultation links have been shared via numerous newsletters, mailing lists and social media channels. A similar request was also made to other organisations and individual stakeholders to share via their networks. We are immensely grateful for this support.

This brochure provides information on the proposed elements of the Base Case, information on how consultation will be used to develop the Base Case further, and how to share your views. We would encourage you to read this brochure, attend the online consultation event and provide your thoughts by completing a feedback form.

The easiest way for you to send us your feedback is to complete the online feedback form. To request a printed copy of the form and this brochure please write to:

WATER FOR LIFE – HAMPSHIRE, PO BOX 5215

The address must be written in capital letters and you do not need a stamp.

If you have any further questions or would like to find out more, visit our web pages or contact us by email.

Website:
www.southernwater.co.uk/water-for-life-hampshire

Email:
WFLH@southernwater.co.uk

Your feedback is important to help us shape a solution for ensuring future water supply in Hampshire. We will consider all the comments we receive and use them to help us develop our proposals further.

This is your opportunity to give your views and the information we receive will help us develop our proposals.

The story so far

The needs case

Environmental and external pressures are driving the need for Water for Life – Hampshire. However, the immediacy of the challenge comes from the need to meet the expected future supply deficit after the planned changes to our abstraction licences. Additionally, drought permits and drought orders will also be less available during drought conditions after 2027. Drought permits and orders allow water companies to maintain public supplies by taking water beyond their abstraction licence limits.

For the past three years (2018–2020) we have needed to prepare applications for a drought permit on the River Test in accordance with our legal agreement with the Environment Agency. However, although a drought permit was granted in 2019, we have not needed to actually implement one, as subsequent rainfall raised the river levels meaning reliance on a drought permit was no longer required.

To offset the potential environmental impact of drought permits and drought orders, we have embarked on a £9.5 million suite of environmental monitoring and improvement projects that are being developed and delivered by local environmental organisations. This work is being funded and delivered regardless of whether a drought order or permit is implemented.

Activities already under way include:

- Monitoring of wildlife including fish, breeding birds and Southern Damselfly
- Working with Bristol Zoo to breed White Clawed Crayfish for wild release
- Restoring rivers to more natural states by removing man-made barriers and clearing areas of non-native invasive vegetation such as Himalayan Balsam

In the legal agreement with the Environment Agency (made under Section 20 of the Water Industry Act) we committed to using “all best endeavours” to implement the long term scheme for alternative water resources set out in our final WRMP19, which is called the ‘Preferred Strategy’. We have set out in our WRMP19 when each element of the Preferred Strategy will be delivered by. The largest element of it, which is a 75 Ml/d desalination plant will be delivered in 2027, with other elements later than this. This is because the phased reductions to our abstraction licences will mean that a large part of our deficit will need to be met by 2027. The proposed desalination plant will be capable of taking sea water from the Solent, treating it and pumping it via a new underground pipe to our Testwood Water Supply Works where it will be sent into the supply network.

White-clawed crayfish © Ben Rushbrook

The story so far

Introducing our Base Case

We refer to the "Base Case" throughout this consultation – it describes the current preferred solution, as outlined in WRMP19, to install a 75 Ml/d desalination plant at Fawley with direct input into our network at Testwood Water Supply Works.

This was selected following extensive consultation with customers and stakeholders as part of WRMP19, which was then approved by the Secretary of State for Environment, Food and Rural Affairs.

The site outlined in our WRMP is at Fawley, on land to the west of the former power plant and to the south of our Ashlett Creek Wastewater Treatment Works.

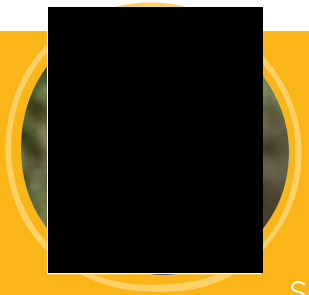
The desalination plant will take water from the Solent via an inlet. The water will be treated at the plant before it is pumped up to our Testwood Water Supply Works, where it will join the supply network. The brine (salty water) produced as part of the desalination process will be released back into the Solent via an outfall, the location of which is currently being developed.

Overview of RAPID

The development of the Base Case, and the investigation into alternatives that may be suitable back-up solutions to the Base Case, is being overseen by the new Regulators' Alliance for Progressing Infrastructure Development (RAPID) as part of the new formal gated funding process for the development of strategic water resources options.

RAPID comprises the three water regulators (Ofwat, Environment Agency and Drinking Water Inspectorate) and is advised by Natural England. Its role is to review progress and determine how, and if, the strategic water resources solutions that are being considered should proceed further through the process. It will make recommendations to Ofwat at various stages of the process, known as 'gates'. Ofwat will then release development funding for each solution as it passes through the 'gate' so it can continue to be developed to the next stage of feasibility. The aim is to enable companies to develop solutions on behalf of customers that are construction-ready in 2025 –2030 that protect and enhance the environment and benefit the wider society.

We have earlier gate times than the rest of the water industry because our need for a new water source is earlier than other companies, as a result of our forecasted supply deficit after 2027. We submitted our first set of documents to RAPID in September 2020 and it has since published its full response on its website. A link to this can be found in the Technical Documents section of our Water for Life – Hampshire webpages.



"The desalination infrastructure lies within the Solent and Southampton Water. We're working closely with the Environment Agency, Natural England and others to ensure we take particular care of this sensitive environment."

Nicola Meakins, Enabling Manager

The story so far

Alternatives we're investigating as back-ups

In addition to developing and delivering the Base Case in line with our "all best endeavours" commitment, we are also exploring a range of alternatives as a back-up, in case is the Base Case is not deliverable. Exploring these alternatives is essential in order to ensure customers' supplies are maintained. However, it should be noted that, because of our commitments to use "all best endeavours" to deliver the Base Case, the options for a new water supply are not presented as a straight choice between the Base Case and the alternatives – instead, the alternatives will only be considered for delivery should the Base Case be undeliverable.

We outlined eight potential back-up solutions and submitted them as part of the RAPID process.

They fall under three categories:

- Desalination alternatives
- Water recycling
- Water transfer

The solutions are listed under the following eight configurations:

Desalination alternatives

- Configuration A.2: 61 Ml/d at Ashlett Creek, near Fawley
- Configuration D.1: 40 Ml/d Desal to industrial use, 30 Ml/d Transfer from South West Water, 41 Ml/d Recycling

Water recycling

- Configuration B.2: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to the Upper Itchen / Havant Thicket Reservoir
- Configuration B.3: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to Otterbourne Water Supply Works
- Configuration B.4: Up to 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to Otterbourne Water Supply Works via Havant Thicket Reservoir
- Configuration B.5: 75 Ml/d recycled water from combination of Budds Farm Wastewater Treatment Works and Peel Common Wastewater Treatment Works

Also included in this consultation:

- Configuration B.1: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to the Lower Itchen

Configuration B.1 is the alternative option included in our WRMP19. However, it is now not being progressed as a potential alternative to the Base Case following Ofwat's decision not to fund further investigations. This is a result of RAPID's recommendation that Natural England and the Environment Agency have concerns about the impact of the recycled water release on the integrity of the River Itchen Special Area of Conservation and the scheme's ability to meet the resource deficit.

These options are described in more detail on pages 24–26.

The story so far

Alternatives we're investigating as back-ups

Water transfer

- Configuration D.2: 75 Ml/d direct raw water transfer from Havant Thicket Reservoir to Otterbourne

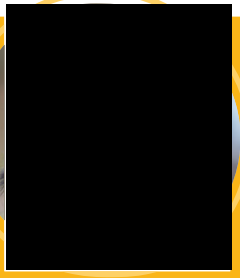
These options are described in more detail on page 27.

Also considered but not part of this consultation:

- Configuration C.1: West Country Sources (North) transfers

We submitted a joint proposal with Wessex Water and Bristol Water to RAPID at our accelerated Gate 1 for a regional water transfer scheme called 'West Country North Sources and Transfer'. This scheme is not considered as an alternative to the Base Case as, since our submission to RAPID in September 2020, it has been moved off the earlier gate timetable and is now part of the standard timeline with the rest of the water industry. As such, it would not deliver water supplies to address our forecast deficit by 2027.

"Water recycling is a different, more complex process than traditional water treatment. It involves taking highly treated wastewater and using advanced treatment techniques to clean and purify it to drinking water standards. In essence, all water is already recycled – we're looking at how to harness and speed up that natural process."



Varsha Wylie, Principal Process Engineer

Our proposals

Options for our Base Case

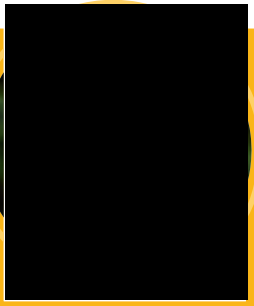
This section of the brochure provides more information on our Base Case solution and the back-up alternative options.

We are considering options for how to best deliver the Base Case, and would welcome your views on how we can further progress components of the scheme so that it is most successful. Components of the Base Case that we are developing, and would welcome your views, on are:

- Options for abstracting water from the Solent
- Information on the desalination plant infrastructure and the ways we are considering managing the cleaned wastewater (brine) removed from the seawater
- The alignment of the underground pipeline, to connect drinking water produced by the project, to our network

Please consider the information presented in this section of the brochure and let us know your thoughts by completing the feedback form.

This section also presents information on our alternative back-up options, which we are preparing plans for in the event that the Base Case is not deliverable. At this stage, we are not consulting on a 'choice' between the Base Case and the alternative solutions, however comments on alternatives will be welcomed and considered in future development of those alternatives. Should the Base Case not be deliverable, we will undertake further consultation on our alternative solutions.



"We're working with international experts on our desalination plans. The technology has the potential to provide a resilient supply for customers by tapping into a vast water resource – the sea. Taking water from the sea would help us to better protect the Test and Itchen ecosystems by reducing our demand on these freshwater sources in times of drought."

Jonny Greenwell, Process Engineer

Water vole © Tom Marshall

Our proposals

A.1: 75 Ml/d Desalination at Fawley (Base Case)

This is the preferred permanent water resources solution as outlined in our Water Resources Management Plan 2019 (WRMP19). It comprises a 75 Ml/d (million litres per day) desalination plant located at Ashlett Creek, near Fawley. The plant will be capable of taking seawater from the Solent, releasing the brine back to the Solent and then transferring drinking water, via a new pipe, to our Testwood Water Supply Works where it will connect into the supply network.

We welcome your views on our Base Case and the components described below.

Our Base Case desalination proposal includes the following key components:

1. Abstraction

Water will be abstracted (taken) from the Solent via an intake structure and pipe. We are currently considering two potential areas for this intake:

- Within the existing deep water dock at the former Fawley power station site (Route 1 abstraction)
- The open water area identified as suitable for abstraction as shown in Figure 1, where there are three possible routes for connection (Routes 2, 3 and 4 abstraction)

The intake will connect to a pumping station, either on the coast via an intake pipe constructed beneath the seabed, as shown in Figure 1, or next to the former Fawley power station. The pumping station location and layout is yet to be defined as it will depend on the abstraction location.

The abstraction will be connected to another pumping station, on land near to the Solent abstraction area shown in Figure 1, or near to the former Fawley power station.

We are considering different ways to stop fish swimming into the intake or debris being drawn into the mouth of the abstraction pipe. These include fully submerged “passive” mesh wire screens which stop fish and debris entering the abstraction pipe and mechanical screens within the abstraction pumping station that would carefully collect any fish and debris and return these back to the sea. The preferred screen type is yet to be determined and will depend on the location of the abstraction.

An underground pipeline will transfer the seawater to the desalination plant for treatment. There are a number of routes being considered for this depending on the abstraction location. Under consideration are:

1. **Route 1:** the former power station inlet, with a short connection to the Ashlett Creek site.
2. **Route 2:** developing the WRMP19 option and using the former power station outlet pipes by re-purposing and extending these to carry the abstraction pipe to the area of deep water (Route 2, in Figure 1).
3. **Route 3:** a shorter route from Ashlett Creek site to land near to Lepe Country Park and extending the pipe to the area of deep water.
4. **Route 4:** a longer route from Ashlett Creek site to land near to Lepe Country Park.

The method of pipeline construction is yet to be determined but we are considering using open excavation techniques (where an excavator digs a trench from the surface to lay a pipe) as well as alternative methods such as tunnelling, directional drilling or pipe-jacking (where pipes are pushed through the ground from a pit without disturbing the surface). The type of method we use will depend on the likely impacts and suitable mitigation measures we can employ.

Our proposals

A.1: 75 Ml/d Desalination at Fawley (Base Case)

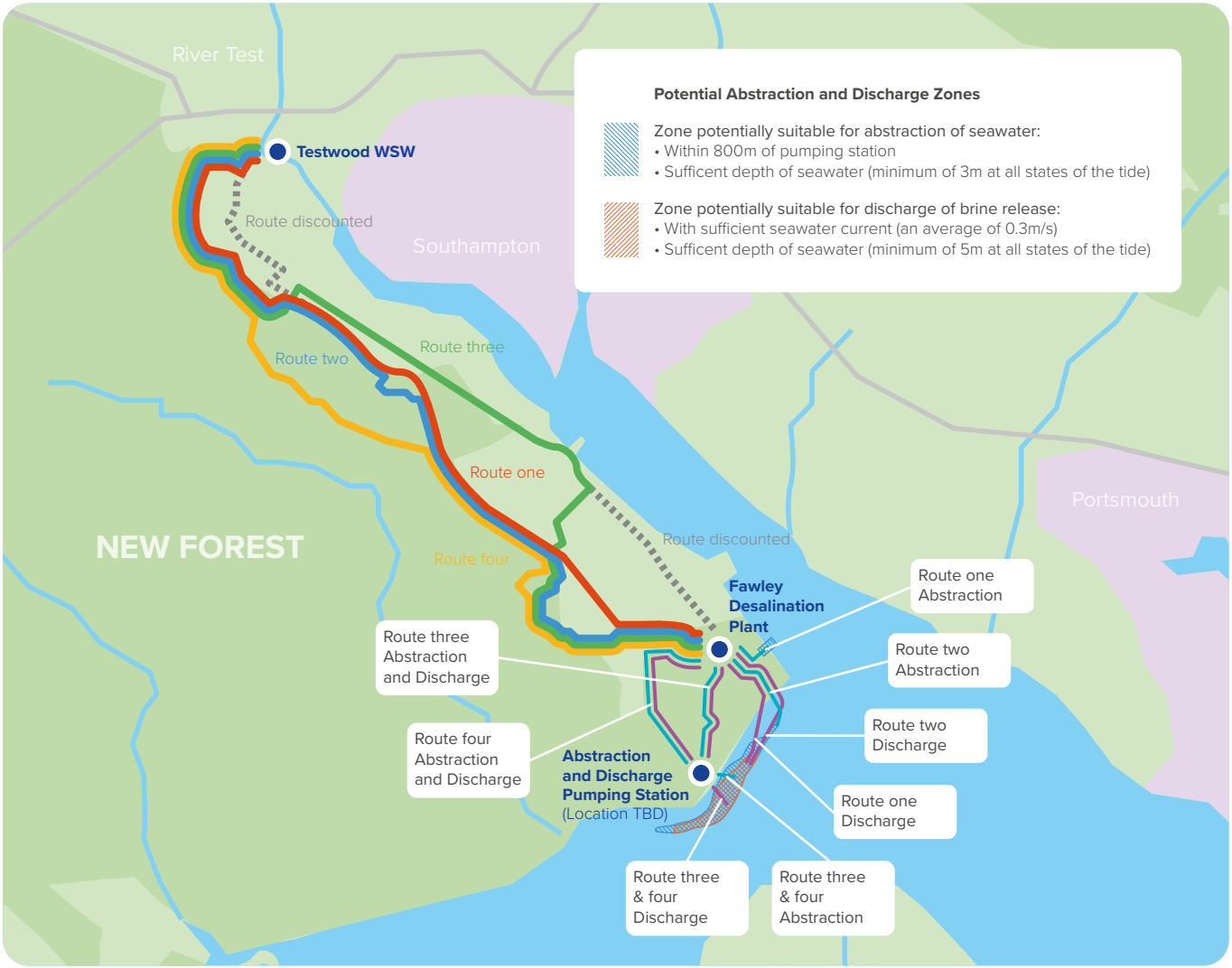


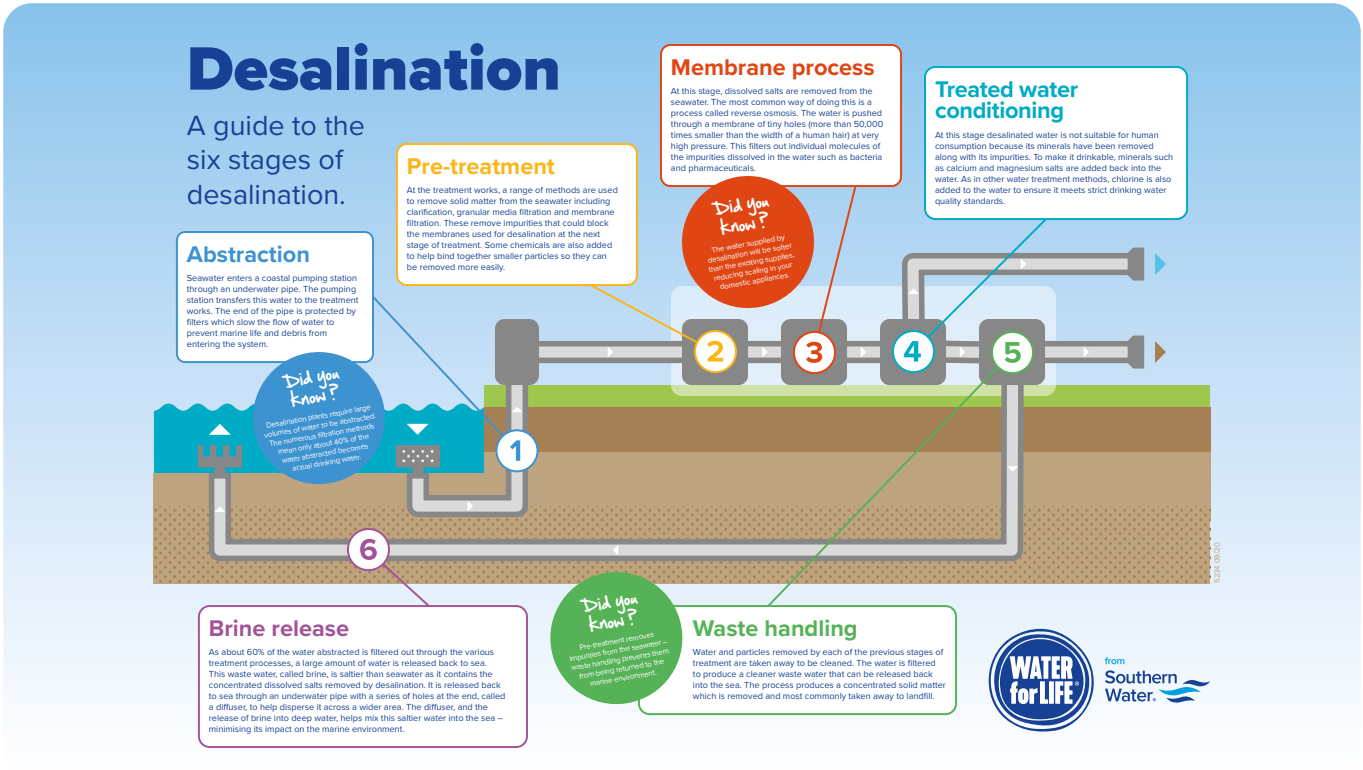
Figure 1: Possible abstraction and release locations, and transfer routes from the desalination plant to Testwood.

Our proposals

A.1: 75 Ml/d Desalination at Fawley (Base Case)

2. Desalination Plant

The desalination plant is the location where several processes are used to treat the seawater, by removing unwanted particles to make the water suitable for drinking. These processes, explained in the diagram below, clean and purify the water to ensure it meets strict drinking water quality standards. A number of large buildings, tanks and associated infrastructure will house the various stages of treatment as well as store the treated drinking water.



Our proposals

A.1: 75 Ml/d Desalination at Fawley (Base Case)

3. Waste disposal

Desalination produces waste products. We propose to dispose of these in different ways, according to their requirements.

- The **solid waste** would be sent to landfill, as the salt content means it cannot be beneficially used on farmland
- The **cleaned wastewater (brine)** would be released back to the Solent

An underground pipeline will transfer the brine back to the sea, via an outfall pipe constructed beneath the seabed. We are considering techniques such as tunnelling and pipe-jacking to install this outfall pipe. At the end of the outfall pipe, a carefully designed structure will release the brine into the identified area of deeper water (see Figure 1) where the tidal movement will help it disperse.

The route options and the release areas in the Solent we are considering are shown in Figure 1 and numbered 1-4.

Alternatives to these preferred options are:

- The solid waste could be combined with the liquid waste and released back to the sea. This would need to consider the sensitive marine environment we are releasing into.
- Evaporating water from the brine to form salt crystals that could then be removed from site and taken away either to landfill or to be used for another purpose such as road-gritting. The UK climate means evaporating the water from the salt naturally is not practicable. A more energy-intensive process would be required to heat the brine to encourage evaporation.

4. Pipeline to transfer to network

The drinking water produced by the desalination plant will be transferred to Southern Water's network via the Testwood Water Supply Works. The underground pipeline required to make this connection will be around 25km long. The pipe will connect to a new water storage tank at Testwood, from where it will join the wider network on the site. A number of proposed corridors have been developed for this pipeline, as shown in Figure 1.

There are four proposed corridors. A combination of these could be used for a preferred corridor:

1. **Route 1:** The original WRMP19 corridor: this route follows the A326, then passes through Totton to Testwood. The top section through residential roads has been discounted as it would not be possible to construct such a large, 80cm diameter, pipeline through the constrained areas between homes and existing strategic services.
2. **Route 2:** This corridor provides an alternative to laying the pipeline all within the A326. Key considerations for this route include existing utility pipes and cables and minimising impact on traffic. The route will cross into adjacent land where possible.
3. **Route 3:** This option explores whether the disused railway line could be used as a corridor for the pipeline. The southern section was discounted as it would not be feasible to pass through the existing oil refinery both in terms of construction and ongoing access and maintenance of the pipe.
4. **Route 4:** This route avoids landfill sites and parts of the A326. It would follow the route of existing oil refinery pipelines and minor roads.

The feasibility of these corridors is still being investigated and developed, alongside this consultation. Further, more detailed, discussions with stakeholders, particularly the Environment Agency and Natural England, and other utility providers in the area are planned to help identify a preferred route.

Our proposals

Alternative water source solutions

We are considering alternative options in the event that the Base Case proves not to be deliverable. Doing so will ensure we have a back-up solution to maintain customers' supplies.

Desalination alternatives

A.2: Desalination 61 Ml/d at Ashlett Creek, near Fawley

This alternative outlines a smaller capacity desalination plant that would use the same site, abstraction and intake location options and release options as the Base Case. The smaller production capacity of 61 Ml/d is being considered based on the results of further computer modelling undertaken since WRMP19. The smaller plant would use less power and have smaller waste streams. Supply and demand computer modelling is still ongoing and is helping us understand how often the desalination plant would be required and the maximum flows during severe and extreme droughts.

D.1: Desalination 40 Ml/d, Transfer from South West Water 30 Ml/d, and Water Recycling 41 Ml/d

This alternative proposal is a combination of an industrial desalination plant, a smaller water recycling plant and diversion of an existing transfer. There is currently a large coastal industrial facility that uses 40 Ml/d of drinking water that could potentially be replaced with desalinated water. The existing supply is provided from two sources, approximately 10 Ml/d from Southern Water and approximately 30 Ml/d from South West Water. An element of this water (15 Ml/d) is further treated by the industrial user to produce 'demineralised' water used in the industrial process.

This proposal would provide:

- A 40 Ml/d desalination plant for the industrial facility on its land and using its existing intake and release locations. In addition, 15 Ml/d of the desalinated water would be further treated by Southern Water to produce 'demineralised' water. These two types of water would be transferred, via separate pipelines, to supply the industrial user.
- The existing 30 Ml/d supply to the industrial facility from South West Water would be redirected to Southern Water's drinking water network. This would remove the need for an additional 20 Ml/d transfer pipeline from South West Water.
- The desalination option would be supplemented by a 41 Ml/d Water Recycling Plant using treated wastewater from Budds Farm Wastewater Treatment Works. This is the same process and pipeline route as proposed for option B.2 as outlined in the following section.

Kingfisher © Andy Ames

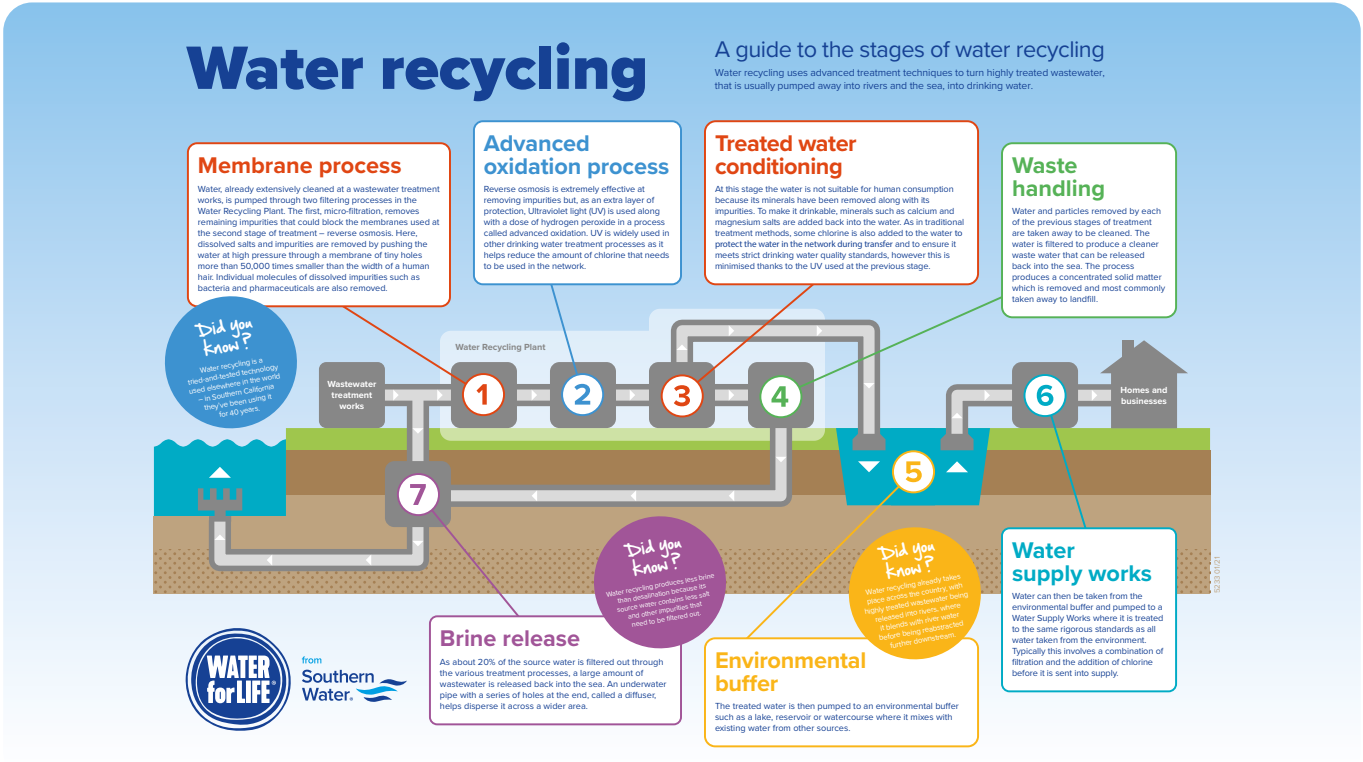
Our proposals

Water recycling

We are exploring ways of recycling our treated wastewater and using it to supplement other sources of drinking water. We call this method water recycling. It speeds up the natural process of water treatment and means we can keep water in our network – reducing the amount we need to take from the environment.

All the Water Recycling Plants considered as alternatives use highly-treated wastewater from our largest wastewater treatment works at Budds Farm in Havant. The higher outputs of 75 Ml/d use an additional connection to a second site, our Peel Common Wastewater Treatment Works in Gosport. The water would be transferred from Budds Farm via a short underground pipeline to the Water Recycling Plant.

The Water Recycling Plant uses advanced treatment techniques to clean and purify the water, as detailed in the diagram below. These processes would take place inside a number of buildings and tanks.



Our proposals

Water recycling

The waste handling requirements of water recycling are similar to those of desalination. Waste materials are removed to form either solid waste or brine. Roughly 20% of the treated wastewater would be returned to Budds Farm as brine and released out to sea via the site's existing 5.7km outfall pipe. The solid waste would typically be taken away to landfill or possibly combined with the existing solid waste treatment processes at Budds Farm.

The advanced treatment processes at the water recycling plant produce a purified water that can then be transferred on to blend with other sources of water in a water body such as a river, lake or reservoir referred to as an 'environmental buffer'. From there, the water would be transferred to our Otterbourne Water Supply Works for further treatment to ensure it meets strict water quality standards.

An alternate configuration, known as 'direct recycling', would see the recycled water sent directly to Otterbourne Water Supply Works for further treatment without first blending with existing supplies in an environmental buffer. The diagram opposite outlines an 'indirect recycling' process.

We are exploring a number of alternative sizes of water recycling plant, and options for transferring the recycled water to Otterbourne Water Supply Works. These are shown in Figure 2 below.

Figure 2: Overview map of Water Recycling Alternatives.

Our proposals

Water recycling

B.1: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to the Lower Itchen

This configuration uses the proposed Water Recycling Plant with a release into the Lower Itchen river, as originally presented in WRMP19, from where the water could be re-abstracted.

It would include:

- Water Recycling Plant capable of producing up to 61 Ml/d of recycled water using treated wastewater from Budds Farm Wastewater Treatment Works.
- A 47km underground pipeline to transfer the recycled water to a release point in the Lower Itchen river.
- An abstraction on the Lower Itchen capable of taking up to 61 Ml/d of water from the river and transferring it via a new pipeline to Otterbourne for further treatment to ensure it meets strict water quality standards.

This is the alternative option included in our WRMP19. However, it is now not being progressed as a potential alternative to the Base Case following Ofwat's decision not to fund further investigations. This is in line with RAPID's recommendation, following concerns raised by Natural England and the Environment Agency about the impact of the recycled water release on the integrity of the River Itchen Special Area of Conservation and the scheme's ability to meet the resource deficit.

B.2: Water Recycling Plant 61 Ml/d to a lake near Otterbourne WSW

This configuration uses the proposed Water Recycling Plant with a release into a new lake, near Otterbourne, followed by further treatment at the water supply works.

It would include:

- Water Recycling Plant capable of producing up to 61 Ml/d of recycled water using treated wastewater from Budds Farm Wastewater Treatment Works.
- A 42km underground pipeline to transfer the recycled water to a purpose-built lake. There are a number of alternative initial corridors being considered, as outlined in Figure 3. The pipeline would release into a new lake, most-likely created on land next to our Otterbourne Water Supply Works, where the water would blend with our current river and groundwater abstractions.
- Abstraction and transfer from the lake to Otterbourne Water Supply Works for further treatment to ensure it meets strict water quality standards.

Our proposals

Water recycling

Figure 3: Initial corridor routes between a possible WRP location and Otterbourne WSW

Our proposals

Water recycling

B.3: Water Recycling Plant 61 Ml/d direct to Otterbourne Water Supply Works

This configuration uses the proposed Water Recycling Plant with a direct connection to Otterbourne Water Supply Works.

It would include:

- Water Recycling Plant capable of producing up to 61 Ml/d of recycled water, using treated wastewater from Budds Farm Wastewater Treatment Works.
- A 42km underground pipeline to transfer recycled water from the Water Recycling Plant to Otterbourne, where it would blend with other river and groundwater abstractions.
- Further treatment at Otterbourne Water Supply Works to ensure the water meets strict water quality standards.

A number of proposed alternative pipeline corridors are being considered as per Figure 3.

B.4: Water Recycling Plant up to 61 Ml/d to Havant Thicket Reservoir and then combined with Configuration D.2

This configuration uses the proposed Water Recycling Plant to supplement the spring-fed water within Havant Thicket Reservoir. Maintaining the water level in this way would increase the amount available for supply. The size of the plant is still being assessed and developed with Portsmouth Water. This configuration is presented in more detail below with the Water Transfer D.2.

Water Recycling Plant 75 Ml/d to a new lake near Otterbourne WSW

This configuration is the same as Alternative B.2, but with a larger Water Recycling Plant and a larger transfer of water (75 Ml/d).

This alternative requires a separate pipeline from our Peel Common Wastewater Treatment Works to carry treated wastewater to the Water Recycling Plant. This would be in addition to the pipeline from Budds Farm to the Water Recycling Plant. Together, these two separate sources of treated wastewater would provide the 75 Ml/d required. The development of the pipeline route between Peel Common and the Water Recycling Plant is in early design stages but would approximately follow the initial, roughly 25km, corridor shown in Figure 3.

Our proposals

Water transfer

Alternative use of the proposed Havant Thicket Reservoir

We are collaborating with Portsmouth Water to develop and fund the proposed new Havant Thicket Reservoir as an additional water source to support the water-stressed South-East. The reservoir will be filled with water from the Bedhampton and Havant Springs during the winter months. This scheme is part of Southern Water and Portsmouth Water's current WRMP but is not a potential alternative to the Base Case.

However, we are also working with Portsmouth Water to jointly explore a potential enhanced use of Havant Thicket Reservoir in the future. The proposal involves an additional transfer of water from the reservoir to our Otterbourne Water Supply Works. The potential of topping up the reservoir with recycled water from the proposed Water Recycling Plant is also being explored.

This configuration would involve transferring 75 Ml/d of water from the proposed new reservoir to our Otterbourne Water Supply Works. The Havant Thicket Reservoir would have a capacity of approximately 8.7 billion litres.

D.2: Water Transfer between Havant Thicket and Otterbourne WSW

This alternative comprises an additional abstraction of water from the proposed Havant Thicket Reservoir. It does not include supplementing the reservoir water with recycled water. A pumping station and pipeline would be required to transfer water from the reservoir to our Otterbourne Water Supply Works for further treatment. This underground pipeline would be about 35km long. The pumping station would comprise a small number of buildings and underground chambers connected to the reservoir by underground pipes. The initial corridors being considered are shown in Figure 4.

Combined Configuration D.2 and B.4: Water Transfer and smaller Water Recycling Plant

This alternative combines configurations D.2 and B.4 to supplement water levels in the proposed Havant Thicket Reservoir with recycled water.

Blending recycled water with the spring water that will naturally fill the reservoir would increase the amount of water available for supply. This would add resilience during a drought and has the potential to further reduce the need to take water from the environment.

This configuration would require a smaller Water Recycling Plant to supplement the reservoir and support the additional transfer of water.

It would include:

- A smaller water recycling plant capable of producing up to 61 Ml/d using treated wastewater from Budds Farm Wastewater Treatment Works.
- An underground pipeline, about 5km long, to transfer water from the Water Recycling Plant to the reservoir.
- A pipeline to transfer water from the reservoir to Otterbourne Water Supply Works, as outlined in Water Transfer Configuration D.2 on this page.

Our proposals

Water recycling

Figure 4: initial corridor routes between the proposed Havant Thicket Reservoir and the Otterbourne Water Supply Works

Environmental context

Our legacy

This section describes the surrounding environmental context for our Base Case, a 75 Ml/d desalination plant at Fawley, including the terrestrial, coastal and marine environment.

The Base Case is located within a sensitive environmental context which we will continue to consider carefully as we shape our proposals. In developing our plans, we need to consider and manage potential impacts to a wide range of environmental receptors.

Should our Base Case not be deliverable, we will need to carefully consider the environmental setting of our back-up solutions which also have the potential to impact a wide range of receptors.

"Hampshire, especially its rivers, coastline and marine environment, is home to a diverse range of wildlife. That's why we have a team of ecologists working alongside the local wildlife and river trusts to make sure that we minimise environmental impact during construction and deliver a lasting legacy of improved conditions for wildlife."

Nicola Catt, Senior Environmental Advisor

Shalfleet

Environmental context

Coastal and marine environment

The proposed seawater intake and outfall lie within the Solent and outer areas of Southampton Water, which are of high biological and nature conservation importance. These waters carry the highest level of environmental protection through national and international nature conservation designations.

These include Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Ramsar sites, Sites of Special Scientific Interest (SSSI) and Marine Conservation Zones (MCZs), as shown in the image on the next page. European nature conservation sites in the area are due to be incorporated into a National Site Network following the UK's departure from the EU, but are expected to continue to carry a high level of protection. Numerous Priority Coastal and Marine Habitats and Species and protected coastal landscapes are also present.

The proposed seawater intake and outfall are located within the Solent and Dorset Coast SPA which has been designated for important bird species (common tern, sandwich tern and little tern) that breed and feed in the area. The subsea pipelines may also need to pass through, or near to, the North Solent SSSI and Solent and Southampton Water SPA and Ramsar which support large numbers of breeding seabirds – including gulls and terns in the summer and waterfowl such as geese, ducks and waders in the winter. Large areas of the surrounding coastline are also designated under the Solent Maritime SAC, which is designated for important marine and estuarine habitats and other important features such as salt meadows and mudflats. A number of MCZs are designated in the Solent and wider English Channel, the nearest of which is the Yarmouth to Cowes MCZ located on the north-western coast of the Isle of Wight.

Southampton Water and the Solent, which connect with upstream rivers such as the Test and Itchen, also support the passage of migratory fish species such as sea lamprey and Atlantic salmon. The Solent also supports marine mammal species such as the common seal.

The Solent and Southampton Water are also important for coastal and marine users. For example, for fishing, navigation, other commercial uses and recreation.

Sandwich Terns

Environmental context

Coastal and marine environment

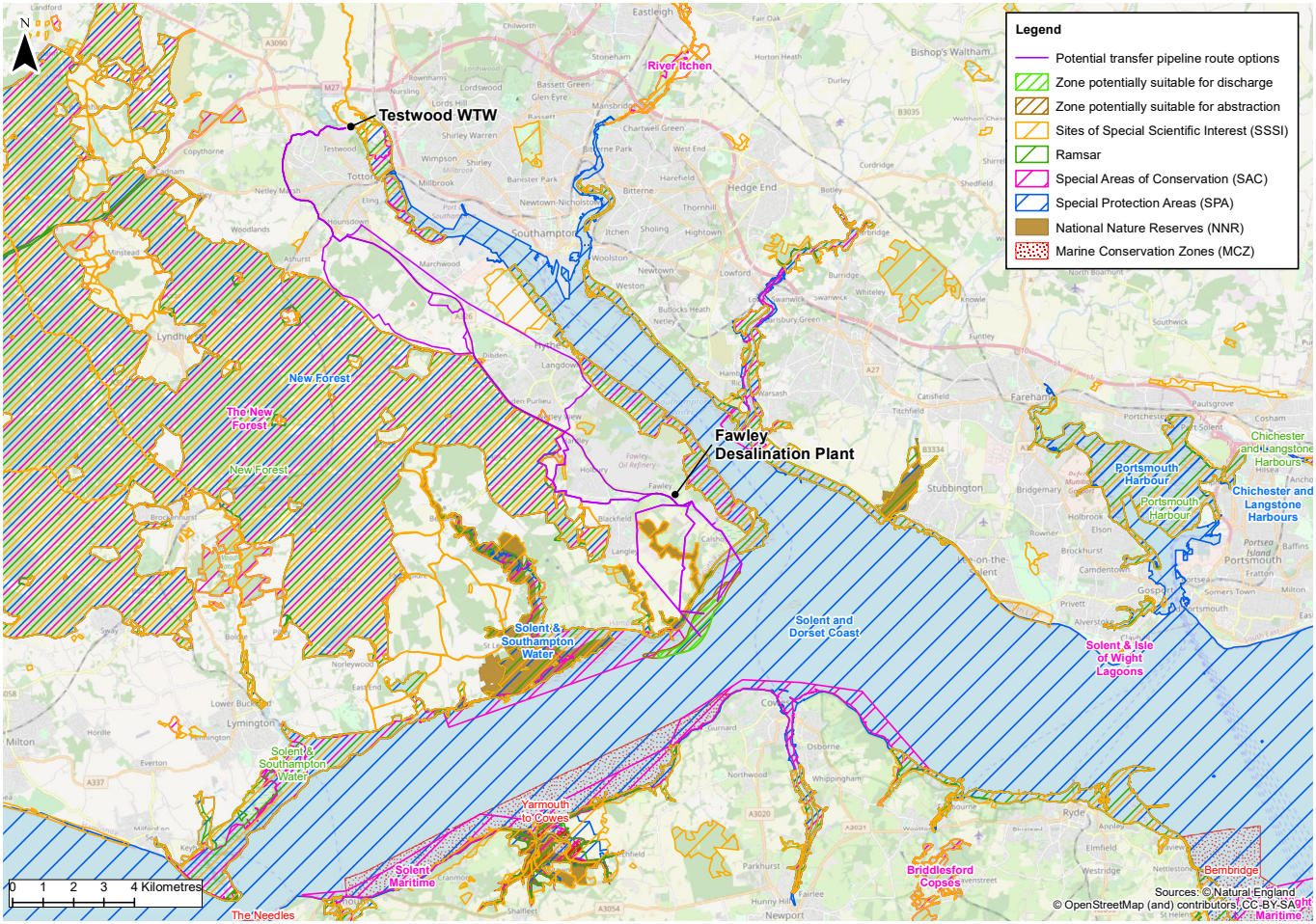


Figure 5: International and national nature conservation designations within the surrounding environment

Environmental context

Terrestrial environment

The terrestrial components of our Base Case, including the desalination plant, its pumping station and transfer pipelines cover a large area with the potential to impact a wide range of receptors.

The location of the desalination plant, as identified in our WRMP, is at Ashlett Creek in Fawley. This is located within the New Forest National Park which carries a high level of protection under national planning policy to ensure the protection of natural beauty, wildlife and cultural heritage.

The transfer pipelines cross large areas of the New Forest District, which include historic buildings and archaeological designations, rivers and green spaces, as well as residential and business communities who could be affected by our proposals.

The large number of nature conservation designations in the coastal and marine environment is also reflected in the terrestrial environment. For example, the transfer pipeline corridors are bordered closely by the New Forest SSSI and SAC, which supports a number of important habitats such as heaths, mires, grassland and woodland habitats.

A number of these habitats and species are sensitive to potential changes in groundwater and surface water flows. A wide range of protected and priority species also known to be present in the surrounding area, including a range of bats, dormice, and other species. A number of locally important wildlife sites are also present.

New Forest heathland

Environmental context

Terrestrial environment

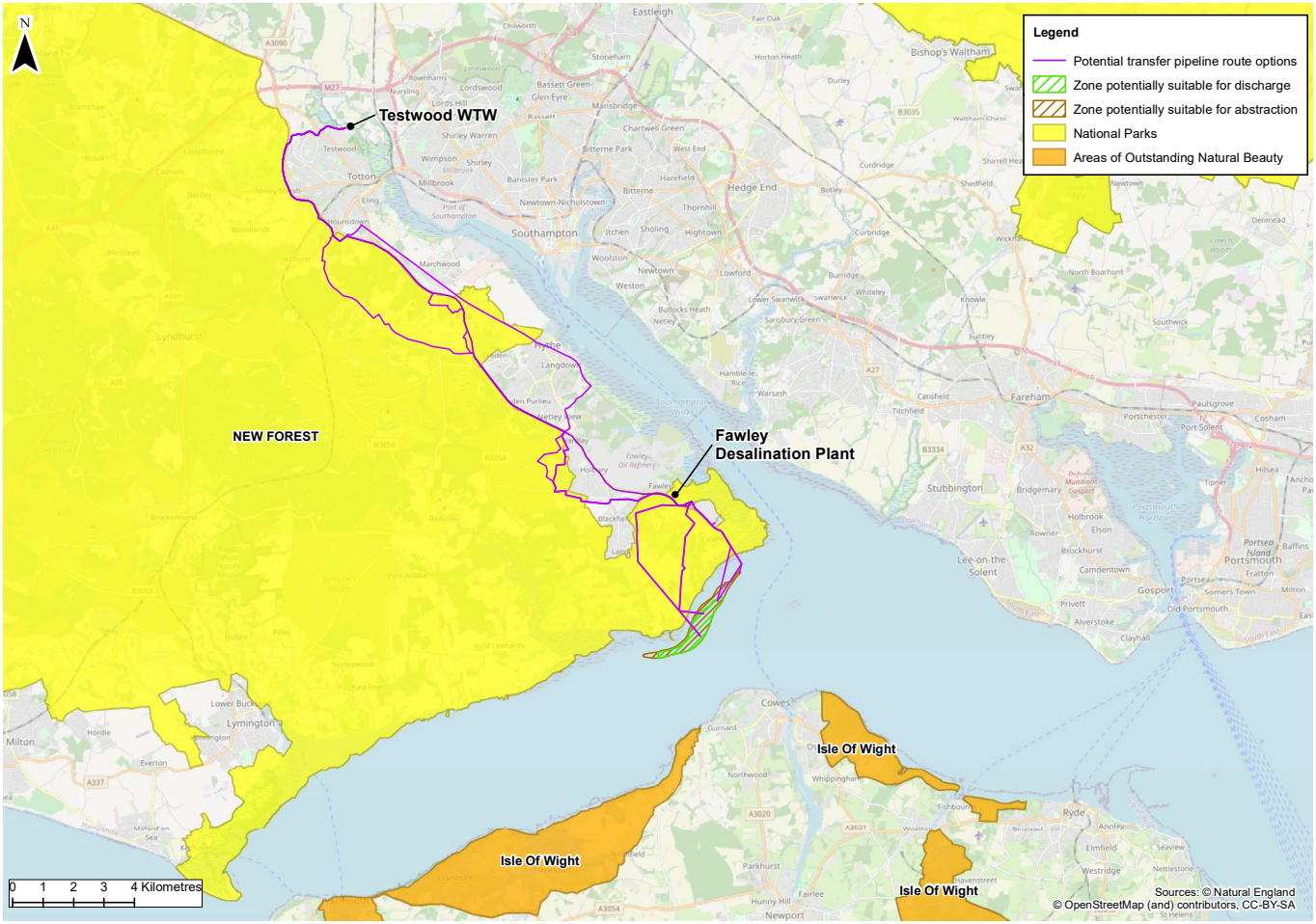


Figure 6: Our proposals are located within a sensitive landscape setting, including the New Forest National Park

What our proposals mean for you

Potential impacts

We recognise that our proposals have the potential to impact local communities and the surrounding environment in a number of ways. Impacts, both beneficial and adverse, may occur during construction and operation and will need to be assessed fully through an Environmental Impact Assessment (EIA) process. Further details on the EIA process are provided on page 36, see 'Environmental effects'.

The following sections provide further information on the construction and operational challenges associated with our proposals and how we will seek to identify and manage impacts.

This section describes the challenges and approaches for our Base Case, however many of these challenges would also apply to our back-up solutions. Should our Base Case not be deliverable, we will further explore the specific impacts of these back-up solutions and undertake further consultation.

Construction

Our construction proposals are still being developed and are at an early stage. However we recognise that construction of our Base Case may cause impacts and disruption to local communities and the surrounding environment. We will explore ways to minimise these impacts as far as possible, through the selection of appropriate construction methodologies, consultation and engagement with local communities, as well as the implementation of other controls or mitigation measures. Mitigation measures will be secured through appropriate planning controls to ensure we deliver the commitments made in our EIA.

We will work with experienced contractors to carefully plan construction activities at all stages of delivery. Below, we have set out some of the approaches we propose to take to address the key construction challenges for this project. We will need to develop detailed construction methodologies to support our application and will consult more on this in the future.

Construction challenges

Traffic management

Traffic management, including road closures may be necessary to enable the excavation and laying of new transfer pipelines to connect the new strategic water source to an appropriate point in the water distribution network. Road closures will be carefully planned in consultation with the relevant local authorities to ensure they are kept to a minimum to reduce the impact on traffic flows and local residents. All traffic management measures will follow the prescribed process and guidance.

We will undertake a construction traffic assessment to consider the traffic which will be generated during the construction phase of the proposed scheme and review the effects on, and measures to minimise, disruption to the local transport network.

We will develop a Construction Traffic Management Plan describing suitable transport routes for construction related traffic along the highway network and detailed plans to include specific access points off the highway to the individual laydown areas. Mitigation measures may include the exploration of alternative delivery routes such as marine transport to reduce the impact on the highway network where possible.

Other large construction projects planned during the same time in the same area, such as the Fawley Waterside Development, will be carefully considered to ensure construction programmes are aligned. Coordination of the projects will help ensure both are delivered without delays and any potential impacts on residents and businesses in the local area can be minimised.

What our proposals mean for you

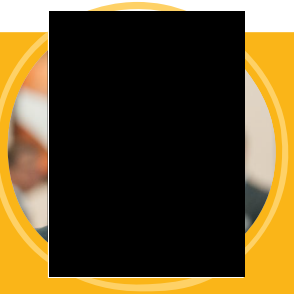
Potential impacts

Proximity to residential properties

Full consultation with local residents will take place at key stages of the project to ensure any concerns are carefully considered and reflected in the project plans. The project team is developing a dedicated communications strategy, including involving any contractors working on our behalf to make sure residents are properly engaged and understand the detailed proposals. An environmental management and monitoring plan will be developed to ensure disruption caused by construction activities are minimised. Where sensitive receptors, including residential areas, are identified in the area, specific mitigations including the use of alternative construction methodologies and plant / equipment will be implemented to further reduce impacts. All construction works will be limited to specified working hours wherever possible.

Construction principles

We are committed to minimising the impacts of our proposals through the application of a number of key construction principles.



"We'll be using a range of best-practice techniques to ensure any disruption is kept to a minimum."

Rob Lawless, Senior Project Manager

Examples of the types of principles we will explore include:

- Use of best-practice construction techniques
- Using lean construction techniques such as reducing waste by using "just in time", and closely monitored, deliveries to reduce waste of materials and by maximising the use of recycled materials whilst minimising water and energy consumption
- Maximum use of ultra-low or zero emission plant and vehicles
- Use of the latest technological innovations and alternative approaches to improve safety and reduce the whole life cost of the construction
- Reduce whole life embedded carbon by developing alternative low carbon solutions including new materials and energy efficiency
- Construction works using best-practice management and monitoring techniques leading to high quality value for money construction
- Ensuring that training and skills development are supported, including considering apprenticeships, and ensuring that safety is at the forefront of everybody's thinking when working on the project
- Using off-site manufacturing where possible, so that packages / plant can be fabricated in a controlled environment remote from the construction site in order to reduce onsite construction impacts
- The project will be managed in accordance with the Considerate Constructors Scheme

What our proposals mean for you

Potential impacts

Environmental effects

Given the scale of the Base Case (and, in the event that one of them is taken forward, the back-up solutions), an Environmental Impact Assessment (EIA) will be required to be carried out to consider the likely significant impacts of the proposals.

We are committed to carrying out a comprehensive EIA which will inform our design as part of an iterative process. The purpose of the EIA process is to help identify the possible likely significant environmental effects of the proposals and identify how those impacts can be avoided, reduced or mitigated.

To support the EIA process, an extensive suite of environmental surveys is proposed to ensure we capture sufficient information on existing baseline conditions. We are planning surveys for our Base Case and back-up solutions to ensure we have robust baseline information for all eventualities.

Our EIA will be supported by a wide range of supporting assessments, including consideration of our proposals under the Water Framework Directive, Habitats Regulations and Environmental Net Gain requirements set out in the draft Water Resources NPS. These assessments will be undertaken with the support of experienced scientists, planning consultants and engineers.

The first stage of the EIA process will be preparation of a Scoping Report during 2021, which will set out the proposed scope and content of our EIA. Further information on how we proposed to identify and manage some of the key impacts of our proposals is presented on the following pages.

Managing impacts

One of our key aims is to identify and manage any impacts of our proposals through further surveys and investigations, consultation and engagement, iterative design and robust impact assessments. This will enable us to identify appropriate measures to mitigate impacts.

In line with good practice EIA process, we will follow a ‘hierarchy’ of mitigations whereby we seek to avoid impacts in the first instance. Where impacts cannot be avoided, we will seek to reduce or compensate these as far as practically possible.

In addition to these steps, we are seeking opportunities to incorporate remediation, enhancement and environmental net gain where possible, not just by offsetting but by actually improving the receiving environment.

Our EIA will consider the full range of environmental receptors. The following sections further explore how we are proposing to explore managing impacts across several key environmental receptors.

Damselfly © Dick Hawkes

What our proposals mean for you

Potential impacts

Biodiversity

Our proposals have the potential to affect both designated and non-designated habitats and species. Further work will be undertaken to ensure these are managed appropriately. In particular, we will review our proposals against compliance with the requirements of the Habitats Regulations.

We recognise that development will be required within the sensitive Solent and Dorset Coast Special Protection Area (SPA), combined with potential impacts to habitats and loss of food sources due to abstraction intake and brine waste-stream extending across the West Solent. We will also carefully investigate potential disruption of migratory fish using the Solent and Southampton Water to access spawning sites on upstream chalk rivers, due to the abstraction intake and brine release. Further investigations will be undertaken to support this work through modelling of the brine dispersion, refinement of the location and design of the intake and outfall structures and exploration of possible mitigation measures. Potential impacts in terms of temperature and turbidity will also be carefully considered.

Care will be taken to ensure the buried transfer pipelines do not cause severance of surface and groundwater flows that support a number of key habitats and species in the surrounding area. Where the transfer pipelines cross rivers, we propose to horizontally drill beneath these features to minimise impacts to aquatic habitats and flows.

A number of terrestrial and aquatic habitats in the area are sensitive to air quality changes, for example through nitrogen deposition which can cause disruption to the life cycles of animals and plant life. We will need carefully consider emissions from our proposals (e.g. from HGV vehicles or back-up diesel generators) to ensure these impacts are minimised.

Ecological enhancements and biodiversity net gain opportunities will be explored and developed further as our proposals progress, ensuring any identified opportunities are secured through agreements with statutory bodies, local wildlife organisations and interest groups.

Migrating Salmon

What our proposals mean for you

Potential impacts

Historic environment

The construction and operation of water resources infrastructure has the potential to result in adverse impacts on the historic environment above, at and below the surface.

'Historic environment' refers to those elements of the environment that have formed from, or are present as a result of, the interaction between people and their surroundings throughout the past. It includes 'heritage assets' such as historic buildings, elements of landscapes, parks and gardens and archaeological monuments and remains, which people identify and value as contributing to their shared culture and heritage.

Archaeological and historical context

There are numerous Scheduled Monuments within the surrounding area, including Calshot Castle (a sixteenth century artillery castle), a Scheduled Monument close to Holbury Manor (moated site, fishponds and associated settlement site, 200m west of Holbury Manor), and a Roman road on eastern edge of Beaulieu Heath, 220m north east of Hardley Bridge Ford. Similarly, listed buildings are numerous with a large number at the waterfront in Hythe and in Marchwood. Numerous non-designated heritage assets also exist throughout the area which will also be considered.

The area encompassing the New Forest National Park also has a rich historical past. It was proclaimed a royal forest in 1079 for use as a royal hunting ground and was a naval plantation in the eighteenth century.

The Solent and Southampton Water have also long been recognised as important areas for marine heritage.

Sheltered landing places along the coastline have drawn human populations to the area for millennia and have contributed to the development and prosperity of the region.

There is also the potential for unknown (i.e. undiscovered) archaeology to be present within the terrestrial and marine environment due to the area's rich history.

To further understand the historic environment, we will undertake a number of surveys and investigations including reviews of historic mapping and data, non-intrusive ground-scanning surveys and potentially some excavations at selected locations. Effective ways to promote understanding of the historic environment during development of the project will be identified through the EIA process. This may take the form of talks with local history and archaeology groups or community engagement through local groups and schools.

Landscape

A detailed Landscape and Visual Impact Assessment will be undertaken to identify the impacts of the proposals on landscape and urban character, valued landscapes and views. Landscape and visual effects also include tranquillity effects, which would affect people's enjoyment of the natural environment and recreational facilities. The impacts on the urban, industrial, rural and coastal characters will be considered with valued landscapes such as the New Forest National Park and maritime seascapes will be given particular consideration.

Good design is key to sustainable development and will be embedded within the project development through site layout and measures relative to existing landscape and historical character and setting.

What our proposals mean for you

Potential impacts

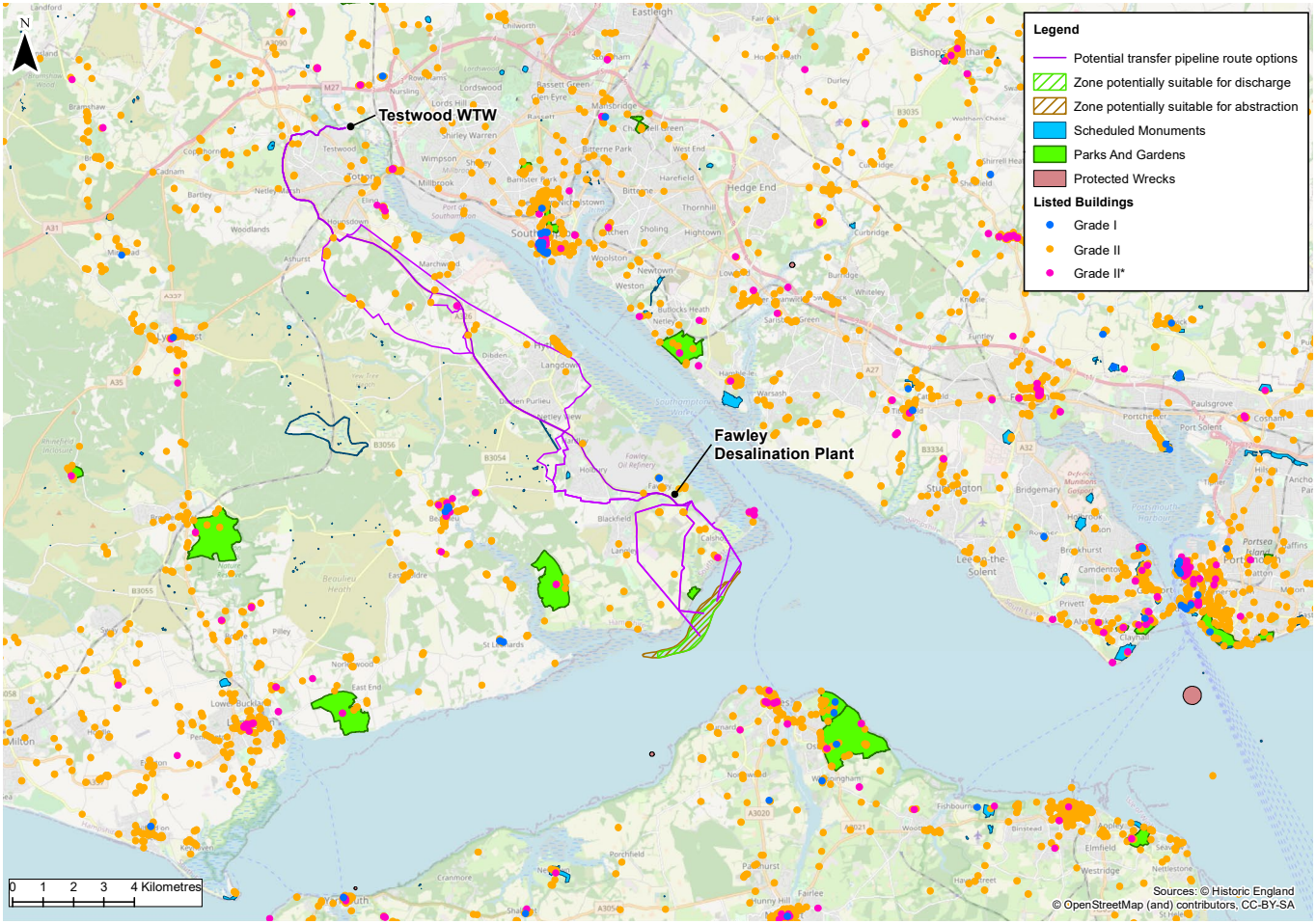


Figure 7: There are number of important heritage features located within the surrounding area

What our proposals mean for you

Potential impacts

Climate change and carbon

Due to the technologies involved, desalination has high energy demands. We are exploring opportunities to reduce energy demands and take into consideration the carbon intensity of the power supply for the desalination plants.

We are also looking at ways to reduce carbon by considering climate impacts at construction and during operation. This will be done through the selection of plant, materials and construction techniques. We will also future-proof our designs by ensuring they are resilient to the impacts of climate change.

Noise and vibration

If not managed properly, excessive noise and vibration from our proposals could impact people's quality of life and health, use and enjoyment of green spaces and areas with high landscape quality. Noise can also affect terrestrial and marine biodiversity. Noise and vibration impacts may occur through operation of the desalination plant and associated infrastructure and through construction activity, particularly piling and the movement of machinery and vehicles.

Where possible, we will seek to reduce noise emissions at source through design choices, choice of construction plant, timing of construction activities and screening.

An extensive noise survey will be carried out to ensure the assessment is carried out against a representative baseline. Noise and vibration will be assessed in line with all relevant local and national noise policy and in accordance with the relevant guidance documents and British Standards.

People and communities

Operation of the desalination plant will secure a long-term drinking water supply for local communities in the event of a drought. It will also create job opportunities for local people, particularly during construction. However, construction and operation of our proposals has the potential to cause some disruption to local communities, which we will work hard to keep to a minimum.

The coastal location of the proposed desalination plant, on the edge of the New Forest National Park, and the nature of the surrounding area means that there are several recreational and residential receptors in the surrounding area. These include the Calshot Beach and Lepe Beach which are both designated as bathing beaches. There are Public Rights of Way across Badminston Farm and in the North Solent Nature Reserve where it extends into Dark Water near Blackfield.

Flood risk and drainage

We will consider both the impacts of our proposals on flood risk and drainage, as well as their susceptibility to flood events. We will also consider the impacts of climate change and coastal change. A Flood Risk Assessment (FRA) will accompany our application to assess this fully. Where possible we will explore sustainable drainage systems, such as wetlands and bioswales, to minimise impacts to fluvial, estuarine, or surface water flood risk.

Lepe beach

Next steps

After the consultation

After the consultation ends, we will publish a report summarising the feedback received and our response. From this, the project team will make recommendations for further development of the scheme, including potential mitigation measures in relation to environment, landscape, water quality, climate change and heritage.

As the project progresses, further consultation will take place. We will keep you informed on this and further opportunities for you to be involved.

We have not yet confirmed which consenting route we will progress through for the Base Case. However, we are currently considering whether the best option for delivery would be to seek to bring the project into the Development Consent Order (DCO) regime to consider the project as a whole (including marine licenses and other consents required for the project) or to seek consent via conventional planning applications under the Town and Country Planning Act regime, accompanied by relevant marine licence applications for works in the marine environment. This is subject to further investigation and engagement as our proposals are developed further.

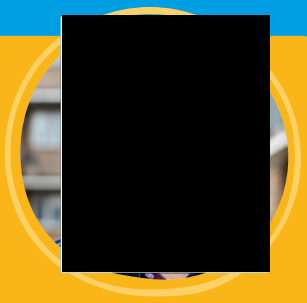
The DCO process involves making an application to the Planning Inspectorate (PINs) under the Planning Act 2008 to seek development consent for the proposals. Under this consenting route, the application would be considered by an appointed Examining Authority with the application eventually being determined by the Secretary of State.

The DCO process seeks to deliver a streamlined route for Nationally Significant Infrastructure Projects and was established to provide a faster and fairer process for both communities and applicants. The process puts emphasis on engagement with communities and stakeholders at the pre-application stage to allow for the opportunity to influence a project at an early stage. The DCO process also allows decisions to be made more quickly when compared to traditional consenting routes, which is particularly important for the tight timescales required by our WRMP19 commitments, as set out in the 'Story so far' section of this document. Given the importance of the desalination plant at Fawley to meeting the region's water supply demands, we consider that it could be considered 'nationally significant'.

Should a DCO be sought, a number of other consents will also be required to ensure compliance with all necessary consenting regimes.

"It's really important that you share your views with us and help us shape our plans. After all – it's your water we're talking about."

Nick Eves, Head of Strategic Customer Insight



Next steps

Share your views

This consultation is your opportunity to express your views on our proposed "Base Case" solution and alternative "back-up" options.

We are seeking views on the following elements of the Base Case:

- Options for abstracting water from the Solent
- Information on the desalination plant infrastructure and the ways we are considering managing the cleaned wastewater (brine) removed from the seawater
- The alignment of the underground pipeline, to connect drinking water produced by the project, to our network

We will listen to your views, publish a consultation report and use this to inform the development of the programme.

Further information on the programme and work to date can be found at the following link:

www.southernwater.co.uk/water-for-life-hampshire

Here you'll find a digital copy of this brochure as part of a virtual exhibition that allows users to virtually move around a 360-degree image of an information event and interact with materials including banners, videos and technical documents, as if you are attending an exhibition.

The easiest way for you to send us your feedback is to complete the online feedback form. To request a printed copy of the form and this brochure please write to:

WATER FOR LIFE – HAMPSHIRE,
PO BOX 5215

The address must be written in capital letters and you do not need a stamp.

If you have any further questions or would like to find out more, visit our web pages or contact us by email at WFLH@southernwater.co.uk.

Your feedback is important to us in shaping a solution for ensuring future water supply in Hampshire. We will consider all the comments we receive and, where appropriate, use them to help us develop our proposals further.

The deadline for submitting responses to the consultation is 16 April 2021.

Glossary

Term, abbreviation or acronym	Definition
1-in-200-year	A severe drought – the return period of a significant drought and is the design drought year in WRMP19
1-in-500-year	An extreme drought
ABE	All best endeavours
AONB	Area of Outstanding Natural Beauty - an area of countryside in England, Wales or Northern Ireland which has been designated for conservation under the Countryside and Rights of Way Act 2000 to protect, conserve and enhance its natural beauty
AOP	Advanced Oxidation Process
Base Case	The preferred strategy in WRMP19. Option A.1 (75Ml/d desalinated water from Fawley to Testwood WSW)
Catchment	The area of region where all water flows to a single point, e.g. for a wastewater catchment, all wastewater flows to a single WTW for treatment
Configuration	The structure of each Option (e.g. technology choice, route to deliver water)
COVID-19	Coronavirus Disease
DCO	Development Consent Order - a DCO is a statutory instrument (law) that grants consent for a Nationally Significant Infrastructure Project under the terms of the Planning Act 2008. A DCO can combine consent to develop, operate and maintain a project, alongside a range of other approvals that would normally have to be obtained separately, such as listed building consent, deemed marine licence and certain environmental consents. A DCO can also contain powers for the compulsory acquisition and temporary possession of land.
Drought Order	Powers granted by the Secretary of State during drought to modify abstraction / discharge arrangements on a temporary basis
Drought Permit	An authorisation granted by the Environment Agency under drought conditions, which allows for abstraction / impoundment outside the schedule of existing licences on a temporary basis
EA	Environment Agency
EIA	Environmental Impact Assessment - the aim of EIA is to protect the environment by ensuring that a relevant authority (local planning authority or Secretary of State) when deciding whether to grant a planning permission or DCO for a project which is likely to have significant effects on the environment does so in the full knowledge of the likely significant effects and takes this into account in the decision making process. EIA also enhances public engagement in the process as consultation on EIA is mandatory.
Fawley Site	The site described in WRMP19
Gated Process	The formal staged process, run by Ofwat, for specific water companies to investigate solutions and for regulators to review progress and determine how, and if, the solutions will progress.

Glossary

Groundwater	Water held underground in the soil or in voids in rock
HRA	Habitats Regulation Assessment - assessment to consider potential effects on designated European sites
MCZ	Marine Conservation Zone
Ml/d	Megalitres (million litres) per day
NE	Natural England
NFNP	New Forest National Park
NPS	National Policy Statement - produced by government under the Planning Act 2008. They comprise the government's objectives for the development of nationally significant infrastructure projects in a particular infrastructure sectors (energy, transport, water, wastewater and waste). There are currently 11 designated NPS, setting out government policy on different types of national infrastructure development. The NPS for water resources is currently in draft form, pending designation by the Government. Applications for DCOs are decided in accordance with the relevant NPS.
NSIP	Nationally Significant Infrastructure Project
Ofwat	Water Services Regulation Authority - The economic regulator of the water sector in England and Wales
Planning Inspectorate (PINS)	TThe Planning Inspectorate deals with planning appeals, national infrastructure planning applications, examinations of local plans and other planning-related and specialist casework in England and Wales.
Preferred Strategy	Final strategy for the Western Area as described in WRMP19 (formerly referred to as Strategy A in draft WRMP19) and is what is required to be delivered by the Section 20 agreement
Programme	All activities included within the scope of WfLH
Project	Specific activities required to deliver one of the options / solutions / schemes
PW	Portsmouth Water
RAPID	Regulatory Alliance for Progressing Infrastructure Development - formed to help accelerate the development of new water infrastructure and design future regulatory frameworks. Made up of the three water regulators: Ofwat, Environment Agency and Drinking Water Inspectorate. It was established with the intention of providing a seamless regulatory interface, working with the industry to promote the development of national water resources infrastructure that is in the best interests of water users and the environment.
Routes	A number of alternative routes have been identified for the pipeline component for the sub-option and configurations.

Glossary

s20	Section 20 - the agreement signed by Southern Water and the Environment Agency during the abstraction licence Inquiry in March 2018 under Section 20 of the Water Resources Act 1991.
SAC	Special Area of Conservation - land designated under Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora. Important high-quality conservation sites that will make a significant contribution to conserving the habitats and species identified in Annexes I and II, respectively, of the Habitats Directive. The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds).
SSSI	Site of Special Scientific Interest - an area that is of particular interest to science, most commonly because of its rare plant or animal life.
SPA	Special Protection Area - areas classified in accordance with European Council Directive 2009/147/EC on the conservation of wild birds, known as the Birds Directive. SPAs protect rare and vulnerable birds (as listed on Annex I of the Birds Directive), and regularly occurring migratory species.
SW	Southern Water
T100	Target 100 water efficiency Initiative
WERF	Water Industry Research Foundation
WFD	Water Framework Directive - a framework for the protection of inland surface waters, estuaries, coastal waters and groundwater.
WfLH	Water for Life Hampshire
WRMP, WRMP19, WRMP24	Water Resource Management Plan - statutory plan setting out how water companies will supply healthy, reliable drinking water to homes and businesses for at least the next 25 years. These plans are published at least every five years. The plan published in 2019 is WRMP19 and the next update will be WRMP24 which is intended to be published in 2023.
WRP	Water Recycling Plant - a site whereby wastewater effluent is purified into water that can be reused as a raw water for providing drinking water.
WRSE	Water Resources South East, the regional body relevant for Southern Water's operational area.
WSW	Water Supply Works - A site whereby raw water is taken from the environment, treated and discharged into the distribution network supplying homes, businesses and industry.
WTW	Wastewater Treatment Works - a site where wastewater and sewerage is treated and released back into the environment.

5391_02/21

Appendix B: Feedback Form

Water for Life – Hampshire

Consultation Feedback Form 2021

Question 1: Which of the following best describe your interest in the Water for Life – Hampshire programme? (Please tick as many as apply)

- ☐ I am a customer whose water supply would be directly impacted by the programme
- ☐ I am a resident who lives close to the proposed Base Case option
- ☐ I live within the local area of the programme
- ☐ I own land within the Water for Life – Hampshire area
- ☐ I own or work for a business located within the Water for Life – Hampshire area
- ☐ I am a stakeholder from an organisation / group interested in this programme
- ☐ I take a general interest in what my water provider is doing
- ☐ None of these
- ☐ Other – please specify:

THE BASE CASE

Southern Water has assessed a range of options to find a solution to address water supply shortages in Hampshire. Based on the evidence of our assessments to date, and building on our Water Resources Management Plan, our proposal (known as the 'Base Case') is to build a 75 Ml/d desalination plant in the Fawley area.

For full details on the Base Case, please review the relevant materials from the consultation brochure.

Question 2a: To what extent do you agree that the proposed Base Case would be an acceptable solution to the potential future water resource challenges in Hampshire?

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Strongly disagree
- ☐ Don't know

Question 2b: Please provide any comments in relation to the following areas to support your answer to question 2:

- Options for abstracting water from the Solent
- Information on the desalination plant infrastructure and the ways we are considering managing the cleaned wastewater (brine) removed from the seawater
- The alignment of the underground pipeline, to connect drinking water produced by the project, to our network

(Please provide as much detail as you can)

Question 3: Do you have any comments to make in relation to potential impacts of the proposed Base Case?

These could cover the following areas: water, environmental, energy, traffic and transport and people (health and socio-economic).

(Please provide as much detail as you can)

ALTERNATIVE OPTIONS

Southern Water have identified alternative options should the 'Base Case' not be delivered.

Desalination alternatives would comprise:

- Configuration A.2: 61 Ml/d at Ashlett Creek, near Fawley
- Configuration D.1: 40 Ml/d Desalination to industrial use, 30 Ml/d Transfer from South West Water and 41 Ml/d Water Recycling

For full details on the desalination alternatives, please review the relevant materials from the consultation brochure.

Question 4a: To what extent do you feel the desalination alternatives would be an acceptable alternative solution, should the Base Case not be delivered, to address potential future water resource challenges in Hampshire?

- [ ] Strongly agree
- [ ] Agree
- [ ] Neither agree nor disagree
- [ ] Disagree
- [ ] Strongly disagree
- [ ] Don't know

Question 4b: Please provide any comments to support your answer to question 4a

(Please provide as much detail as you can)

Question 5: Do you have any comments to make in relation to potential impacts of any of the desalination alternatives listed?

Comments could cover, but are not limited to, the following areas: water, environmental, energy, traffic and transport and people (health and socio-economic).

(Please provide as much detail as you can)

Water recycling alternatives would comprise:

- Configuration B.1: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to the Lower Itchen
- Configuration B.2: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to the Upper Itchen/Havant Thicket
- Configuration B.3: 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to Otterbourne Water Supply Works
- Configuration B.4: Up to 61 Ml/d recycled water from Budds Farm Wastewater Treatment Works to Otterbourne Water Supply Works via Havant Thicket Reservoir
- Configuration B.5: 75Ml/d recycled water from combination of Budds Farm Wastewater Treatment Works and Peel Common Wastewater Treatment Works

For full details on the water recycling alternatives, please review the relevant materials from the consultation brochure.

Question 6a: To what extent do you feel the water recycling alternatives would be an acceptable alternative solution should the Base Case not be delivered, to address potential future water resource challenges in Hampshire?

- [ ] Strongly agree
- [ ] Agree
- [ ] Neither acceptable nor disagree
- [ ] Disagree
- [ ] Strongly disagree
- [ ] Don't know

Question 6b: Please provide any comments to support your answer to question 6a

(Please provide as much detail as you can)

Question 7: Do you have any comments to make in relation to potential impacts of any of the water recycling alternatives listed?

Comments could cover but are not limited to the following areas: water, environmental, energy, traffic and transport and people (health and socio-economic).

(Please provide as much detail as you can)

Water Transfer alternatives would comprise:

- Configuration D.2: 75 Ml/d direct raw water transfer from Havant Thicket to Otterbourne

For full details on the water transfer alternatives, please review the relevant materials from the consultation brochure.

Question 8a: To what extent do you feel the water transfer alternatives would be an acceptable alternative solution, should the Base Case not be delivered, to address potential future water resource challenges in Hampshire?

- [ ] Strongly agree
- [ ] Agree
- [ ] Neither agree nor disagree
- [ ] Disagree
- [ ] Strongly disagree
- [ ] Don't know

Question 8b: Please provide any comments to support your answer to question 8a

(Please provide as much detail as you can)

Question 9: Do you have any comments to make in relation to potential impacts of the water transfer alternatives?

Comments could cover, but are not limited to, the following areas: water, environmental, energy, traffic and transport and people (health and socio-economic).

(Please provide as much detail as you can)

FINAL COMMENTS

Question 10: Do you have any other comments, thoughts or concerns about the Water for Life – Hampshire programme of proposed options you have provided feedback on?

(Please provide as much detail as you can)

Question 11a: How did you hear about this consultation?

- ☐ Received a letter / email
- ☐ Newspaper
- ☐ Social media
- ☐ Local authority / newsletter or mailing list
- ☐ Family / friends
- ☐ Other source

Question 11b: Do you have any feedback on this consultation – eg level of information provided, advertising etc?

(Please provide as much detail as you can)

ABOUT YOU

Question 12: Solely for analysis purposes, please could you provide the first section of your postcode?

Question 13: If you would like to receive a notification when future stages of public consultation on the Water for Life – Hampshire programme start, please enter your details including your email below:

Email address (required):

Name (required):

Telephone number (optional):

Organisation (optional):

☐ Please tick this box if you are happy for Southern Water to use the contact details you have provided in this survey.

Please use the box below if you have any further comments you would like to make.

Thank you for providing feedback on the Water for Life – Hampshire proposals – your time is very much appreciated.

Data Protection: In accordance with the GDPR, Southern Water will securely store your email address on our servers for this purpose for up to 2 years. You have the right to withdraw your consent to this at any time. By providing your email address here, we confirm, we will not contact you about anything other than consultation projects; though you may be contacted by us as a customer if you have given permissions to use your email address on your account. Should you have any concerns or wish to withdraw your consent, please contact Southern Water by using the email address WFLH@southernwater.co.uk or you can contact the Southern Water Insight Team on 07884 220 825. In due course, the information provided in response to this consultation will be used in a Consultation Report as part of a consenting application to the Planning Inspectorate (PINS), as an executive agency of UK Government. The PINS privacy statement is available to view here: https://infrastructure.planninginspectorate.gov.uk/help/privacy-notice/

5391_02/21

Appendix C: List of Stakeholders

Statutory consultees

Prescribed and Statutory Consultees	
Cranborne Chase AONB	The office of road and rail
Chichester Harbour AoNB	Dorset AoNB
Isle of White AoNB	North Wessex Downs AoNB
Surrey Hills AoNB	Civil Aviation Authority
Canal and River Trust	Transport Focus
Local Authorities	Hampshire Fire and Rescue Authority
Parish Councils	Hampshire County Council - Highways
Natural England	The Environment Agency (drainage)
Public Health England	Hampshire Prepared Local Resilience Forum
The Coal Authority	Hampshire Police and Crime Commissioner
The Crown Estate	Hampshire Search and Rescue
The Disabled Persons Transport Advisory Committee	Highways England
The Environment Agency	The Environment Agency (waste)
The Equality and Human Rights Commission	Ofwat
The Forestry Commission	Trinity House
Historic England	Secretary of State for Business, Energy and Industrial Strategy
Homes England	Neighbourhood Forums tbc
Joint Nature Conservation Committee	Hampshire County Council (LLFA)
MMO	Secretary of State for Business, Energy and Industrial Strategy
The Maritime and Coastguard Agency	DEFRA
The office of Nuclear Regulation (the ONR)	The relevant public gas transporter(s)
The relevant electricity distributor(s) with CPO Powers	Highways England Historical Railways Estate
Ministry of Defence	National Rail Infrastructure Ltd
The National Health Service commissioning board	NHS West Hampshire Clinical Commissioning Group
The relevant water and sewage undertaker(s)	Consumer Council for Water
The Food Standards Agency	Associated British Ports
Southern Inshore fisheries and conservation authority	OFGEM
Health and Safety Executive	Network Rail
Royal Mail Group	
Local authorities within WfL:H Western Area	
Hampshire County Council	Dorset County Council

Wiltshire County Council;	West Sussex County Council
New Forest National Park Authority;	Gosport Borough Council
Southampton City Council;	Fareham Borough Council
Isle of Wight Council;	Bournemouth, Christchurch and Poole Council
Eastleigh Borough Council;	Havant Borough Council
Test Valley Borough Council;	Portsmouth City Council
Winchester City Council;	East Hampshire District Council
Basingstoke and Dean District Council.	Arun District Council
Waverley Borough Council	South Downs National Park Authority
New Forest District Council	Surrey County Council
Chichester District Council	
Parish Councils	
Fawley Parish Council	Hordle Parish Council
Ashurst & Colbury Parish Council	Hyde Parish Council
Beaulieu Parish Council	Hythe & Dibden Parish Council
Boldre Parish Council	Lymington & Pennington Town Council
Bramshaw Parish Council	Lyndhurst Parish Council
Bransgore Parish Council	Marchwood Parish Council
Breamore Parish Council	Martin Parish Council
Brockenhurst Parish Council	Milford-on-Sea Parish Council
Burley Parish Council	Minstead Parish Council
Copythorne Parish Council	Netley Marsh Parish Council
Damerham Parish Council	New Milton Town Council
Denny Lodge Parish Council	Ringwood Town Council
East Boldre Parish Council	Rockbourne Parish Council
Ellingham, Harbridge & Ibsley Parish Council	Sandleheath Parish Council
Exbury & Lepe Parish Council	Sopley Parish Council
Fordingbridge Town Council	Sway Parish Council
Godshill Parish Council	Totton & Eling Town Council
Hale Parish Council	Whitsbury Parish Council
Woodgreen Parish Council	

Non-statutory Consultees

Potential users, interest groups and local community groups	
Hampshire and IoW Wildlife Trust	Drinking Water Inspectorate
Wessex Chalk Stream and Rivers Trust	Solent Forum
Test and Itchen Association	RAPID (Ofwat, EA, DWI)
Salmon and Trout Conservation	Influencers
Angling Trust	Local MPs
Countryside Landowners Association	Politicians within the Western Area Local Authorities
Hampshire Ornithological Society	Water Resources South East

RSPB	West Country Water Resources
CPRE Hampshire	Regional groups (where applicable)
Upper Itchen Initiative	Water supplier affected by supply System
Bourne Rivulet Group	Any water companies with bulk supply or shared resource agreements with
English Heritage	Neighbouring water companies
Sustrans	Customer challenge groups or their equivalent
The Woodland Trust	Any other groups the development is likely to affect
National Trust	Any potential water supplier, company or third party Southern Water may wish to trade with
Local catchment partnerships	National Infrastructure Commission (PINS)
Water UK	Local Nature Partnerships (where applicable)
Water retailers for business	Any companies that Southern Water has an agreement with such as a NAV or water retailers
Hampshire Chamber of Commerce	Solent LEP
Partnership for Urban South Hampshire	National Farmers' Union
Senior Steering Group, Regional Co-ordination group and modelling advisory group established as part of the National Framework for Water Resources	

Appendix D: Press Release

Water for Life – Hampshire
Launch of non-statutory public consultation press release
February 8, 2021

Southern Water unveils major plans to help keep Hampshire's rivers and taps flowing

Southern Water is consulting on plans to pump hundreds of millions of pounds into Hampshire and the Isle of Wight to help keep rivers and taps flowing during a drought.

The company's *Water for Life – Hampshire* programme will revolutionise the way it sources, treats and supplies water across Hampshire and the Isle of Wight over the next decade.

Due to the Covid-19 pandemic, the company is adopting a "digital first" approach to its consultation and has launched a virtual room online where people can interact with films, animations, information boards and a brochure detailing the programme and the opportunities to help shape the plans.

The virtual room can be reached via www.southernwater.co.uk/water-for-life-hampshire

The company is seeking planning consent for its central plan – a desalination plant in the Fawley area which will produce up to 75 million litres of water per day that will be used to supply water to the Hampshire region during periods of drought.

The consultation also outlines the alternatives the company is exploring as a back-up in case desalination proves undeliverable – ensuring customers' supplies are maintained.

If one of the alternatives is developed in the future, it would be subject to further development and consultation on that proposal. These include alternative sizes of desalination plant, different configurations of water recycling plants and a possible additional bulk transfer of water from the proposed Havant Thicket Reservoir, which Southern Water is co-developing with Portsmouth Water.

As part of its wider *Water for Life – Hampshire* programme, Southern Water is also:

- Planning to install up to 125km of new water mains to link up its key sites and bring in supplies from neighbouring companies as well as building additional storage
- Reducing leakage (by 15% by 2025, 40% by 2040 and 50% by 2050)
- Increasing water efficiency by supporting and incentivising people to reduce their use to 100 litres a day (from an average of 129) by 2040
- Improving environmental resilience and water quality by working with farmers, businesses and environmental groups to protect and restore local water sources

Ian McAulay, Southern Water CEO, said: "Water is a precious, and increasingly scarce, resource and we all need to take steps to protect and preserve it.

"*Water for Life – Hampshire* is our commitment to go to even greater lengths to strike the balance between protecting the environment and serving a growing population.

"It's also a fantastic opportunity for us to work with environmental groups, local authorities, industry, land owners and others to deliver our stated vision of "Delivering a resilient Water Future for the South East" and, in particular, Hampshire and the Isle of Wight.

"This wide-ranging programme is the first of its kind in the UK and gives us an opportunity to help redefine how we think about water in a more holistic and sustainable way and create examples for the future.

"The result will be a resilient supply of water for customers and the environment, whatever the weather."

The improvements will secure future water supplies for customers and help protect two of the county's major rivers – the Test and the Itchen.

These rivers are among the finest examples of chalk streams in the world – rare ecosystems that support an abundance of wildlife such as salmon, trout, crayfish and dragonflies.

The Test and Itchen, and their associated underground aquifers, are also the main source of water for more than 700,000 people as well as being a source for a number of private abstractions.

Water for Life – Hampshire is Southern Water's pledge to take significantly less water from the rivers to further protect wildlife during dry weather and drought – a commitment that leaves the company with a shortfall of up to 190 million litres of water a day during a 1-in-200 year drought.

Southern Water's current Water Resources Management Plan (WRMP) plans to make up this shortfall by 2027 and the company is investing hundreds of millions of pounds to ensure it continues to protect the environment while securing reliable, wholesome water for its customers.

It is also planning for further expected reductions which, during a drought, could lead an increased loss of water required to supply Hampshire and the Isle of Wight.

Southern Water is continuing to develop its plans for a desalination plant in the Solent, as outlined in its WRMP and is in the process of preparing its application for planning consent.

The company is engaging with local authorities and landowners on the plans and working to find a suitable site for the facility, which will be capable of supplying up to 75 million litres of water a day.

Southern Water is working hard to address the shortfall in Hampshire between now and 2027.

In the meantime, the area will be at risk of water shortages and the company may need to apply for drought permits or drought orders to ensure customers' supplies are maintained.

Drought permits and drought orders allow the company to continue to take water during dry weather but mean restrictions on use, previously managed under hosepipe bans, may be needed.

To offset the potential environmental impact of drought permits and drought orders, Southern Water has embarked on a £9.5 million suite of environmental monitoring and improvement projects that are being developed and delivered by local environmental organisations.

Activities already agreed include:

- Monitoring of wildlife including fish, breeding birds and Southern Damselfly
- Working with Bristol Zoo to breed White Clawed Crayfish for wild release
- Restoring rivers to more natural states by removing man-made barriers

To find out more about the programme and engage in the online consultation, visit www.southernwater.co.uk/water-for-life-hampshire

If you are unable to access the website, please write to *Water for Life – Hampshire, PO Box 5215* (no stamp required) to request a written copy, or large print version, of the consultation brochure and feedback form.

Ends

Notes to Editors:

The consultation starts on February 8 and runs for six weeks, until March 23. All responses must be sent by midnight on March 23.

The major infrastructure projects in the *Water for Life – Hampshire* programme are being overseen by an advisory board comprising the main water industry regulators - Ofwat, the Environment Agency and the Drinking Water Inspectorate.

The group, called the Regulators' Alliance for Progressing Infrastructure Development (RAPID) is being advised by Natural England.

RAPID is overseeing the development of strategic water resources projects for several water companies across the country to help them identify and develop the optimal regional and inter-regional solutions.

Contact: Southern Water team – mediateam@southernwater.co.uk


WATER
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from
Southern
Water®