Portsmouth Water

Strategic Environmental Assessment of the Final Water Resources Management Plan 2019

Post Adoption Statement

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Wood Environment & Infrastructure Solutions UK Limited – November 2019

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Report for

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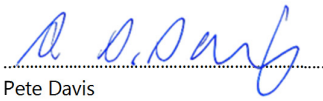

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No.	Details	Date
1	Draft	September 2019
2	Final	November 2019

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1. Introduction

This report is the Post Adoption Statement (PAS) to accompany the final version of Portsmouth Water's Water Resources Management Plan (WRMP). The report describes the way in which Portsmouth Water has taken environmental considerations and the views of consultees into account when completing the Final WRMP and fulfils the plan and programme adoption requirements of the Strategic Environmental Assessment (SEA) Directive 2001/42/EC[1] and the SEA regulations[2].

1.1 Portsmouth Water's Water Resources Management Plan

1.1.1 On average, Portsmouth Water delivers some 175 million litres of drinking water per day to a population of over 725,000 people in 320,000 properties across an area covering 868 km^2. Some 88% of water supplied to customers is from groundwater springs and boreholes which abstract from the local chalk aquifer. The remaining drinking water is sourced from a surface water abstraction on the River Itchen.

1.1.2 Along with all water companies in England and Wales, there is a statutory requirement for Portsmouth Water to prepare, maintain and publish a WRMP that sets out how the balance between water supply and demand, and security of supply, will be maintained over the coming 25 years in a way that is economically, socially and environmentally sustainable. These are reviewed on a rolling 5 year basis. Portsmouth Water has now completed the work on its WRMP for the period 2020 to 2045. The new plan, 'WRMP 2019' will replace the current WRMP 2014.

1.1.3 Portsmouth Water's supply area is operated as a single Water Resource Zone (WRZ). WRZs are defined in the Water Resources Planning Guideline[3] as "*an area within which the abstraction and distribution of supply to meet demand is largely self-contained (with the exception of agreed bulk transfers)…Within a WRZ all parts of the supply system and demand centres (where water is needed) should be connected so that all customers in the WRZ should experience the same risk of supply failure and the same level of service for demand restrictions*". Where the Supply Demand balance (SDB) identifies that the WRZ is in deficit over the lifetime of the plan, the WRMP will present management options to address the deficit and maintain the balance of supply and demand.

1.1.4 The process of developing management options includes a review of as many potential solutions as possible (the 'unconstrained list' of options) to identify 'feasible' (constrained) options for each WRZ where deficits are predicted. These 'feasible' options are then reviewed to identify 'preferred options' to resolve any supply deficits in relation to financial, environmental and social costing.

1.1.5 The SDB for the Portsmouth Water WRZ identifies a deficit over the lifetime of the plan. Following screening of the unconstrained options, 25 feasible options were identified for potential consideration to address the deficit.

1.1.6 The types of feasible options considered in preparing WRMP 2019 were broadly categorised as follows:

[1] EU (2001) *Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment*
[2] HM Government (2004) *Environmental Assessment of Plans and Programmes Regulations 2004 (SI 2004 No. 1633)*
[3] Environment Agency and Natural Resources Wales (2018) *Water Resources Planning Guideline: Interim Update*. Available at: https://cdn.naturalresources.wales/media/686174/interim-wrpg-update-july18-final-changes-highlighted.pdf

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- **customer-side** – options affecting customers involving demand management implemented at customers' properties, such as water efficiency and metering;
- **production-side** – options targeted at activities between abstraction and the point of consumption, e.g. at water treatment works;
- **distribution-side** – options that address activities involved with the management of the system, such as leakage control; and
- **resource management** – options that affect deployable output (DO), e.g. a new reservoir or a new raw or treated water transfer.

1.1.7 Informed by the environmental, social and economic assessments and ongoing discussion with stakeholders, the list of feasible options was refined to identify 15 preferred options for inclusion in the draft WRMP.

1.1.8 Following consultation on the draft WRMP and the responses from the regulators and consultees, further changes were made to the WRMP. These included changes with respect to metering, water efficiency and leakage options. **Table 1.1** presents the final 21 options that are contained in the Final WRMP.

Table 1.1 Final WRMP Options

Option Number	Option Type	Option Title	Year
R013	Resource management	Havant Thicket Winter Storage Reservoir	2029-30
R021a	Resource management	Source O – Maximising DO	2020-21
R022a	Resource management	Source J – Maximising DO	2024-25
R023a	Resource management	Source H – Maximising DO	2020-21
R024a	Resource management	Source C – Maximising DO	2020-21
R068	Resource management	Source S – Drought Permit	2020-21
C005	Customer-side	Smart Meter MNFR Trial	2020-21
C006	Customer-side	Metering on change of occupier - all properties	2025-26
C006a	Customer-side	Metering on change of occupancy - existing meter pits	2020-21
C026	Customer-side	Subsidy to customers that purchase water efficient appliances (washing machines and dishwashers, showers and WCs)	2020-21
C034	Customer-side	Water saving devices – Retrofitting existing toilets	2020-21
C040	Customer-side	Water saving devices – spray taps	2020-21
C043	Customer-side	Water saving devices - trigger nozzles & water butts	2020-21
C046	Customer-side	Household water efficiency programme (partnering approach, home visit)	2020-21
C046b	Customer-side	Waterwise programme	2020-21
C084	Customer-side	Void metering	2020-21
C078	Customer-side (drought)	Voluntary restraint and leakage action	2020-21

Option Number	Option Type	Option Title	Year
C079	Customer-side (drought)	Mandatory restraint	2020-21
C080	Customer-side (drought)	Imposition of Drought Direction Restrictions (mandatory commercial restraint)	2020-21
D004a	Distribution	Fixed network of permanent noise loggers connected to telemetry - Tranche 1	2020-21
D004b	Distribution	Fixed network of permanent noise loggers connected to telemetry - Tranche 1	2025-26

Preparation of the Water Resource Management Plan

1.1.9 Consistent with the Water Resources Planning Guideline[4], the development of the WRMP has included the completion of the following key stages:

- early engagement with regulators, customers and interested parties on expectations for the WRMP;
- pre-consultation with regulators, other licensed water providers and other stakeholders on the Draft WRMP;
- the publication of a Draft WRMP for public consultation;
- the publication of a Statement of Response (SoR) describing the consultation on the Draft WRMP and how the company took into account the comments received in the preparation of a Revised Draft Final WRMP;
- the submission of the SoR and Revised Draft Final WRMP to the Secretary of State for Environment, Food and Rural Affairs; and
- the publication of a Final WRMP.

1.1.10 The Company prepared and submitted its Draft Water Resources Management Plan (Draft WRMP) to Defra in March 2018. The Draft WRMP was made available for public consultation from 5th March until 25th May 2018. The plan was published in accordance with the Water Industry Act 1991, Sections 37 A to D, as amended by Section 62 of the Water Act 2003.

1.1.11 Representations on the Draft WRMP were received from a total of 15 organisations. During the consultation period, Portsmouth Water also contacted over 38,000 customers directly and invited them to respond to an online survey. A total of 2,212 online questionnaires were completed.

1.1.12 The Company's SoR was published in September 2018.

1.1.13 The SoR and Revised Draft Final WRMP were submitted to the Secretary of State for Environment, Food and Rural Affairs in September 2018 to determine whether the plan could be published.

1.1.14 Following a review of the SoR and the changes made in the Revised Draft Final WRMP, Defra requested more information on the plan. On 14th June 2019, Portsmouth Water published an addendum to the SoR that provided the responses to Defra's information requests and some issues raised by the Environment Agency. Subsequently, on 5th November 2019 Portsmouth Water received direction to publish the Final WRMP from the Secretary of State. Portsmouth Water has

[4] Environment Agency and Natural Resources Wales (2018) *Water Resources Planning Guideline: Interim Update*. Available at: https://cdn.naturalresources.wales/media/686174/interim-wrpg-update-july18-final-changes-highlighted.pdf

now published the Final WRMP. It is available on the Portsmouth Water website at: https://www.portsmouthwater.co.uk/news/publications/water-resources-planning/

Strategic Environmental Assessment and the Water Resources Management Plan

1.1.15 SEA is a statutory requirement[5] for plans and programmes that could have significant environmental effects. The SEA process identifies, describes and evaluates potential effects, proposing where appropriate, mitigation and/or enhancement measures.

1.1.16 Portsmouth Water published the SEA Scoping Report for the WRMP for a consultation period beginning the 22nd July to 26th August 2016. Six responses were received. The responses resulted in amendments to the baseline information and assessment framework that has been used to assess the management options.

1.1.17 The Draft WRMP was then subject to SEA. This assessed the likely significant effects on the environment of the Draft WRMP including an assessment of all the feasible options and the preferred options. The findings of the assessments were presented in the Environmental Report that was published for consultation alongside the Draft WRMP in March 2018. Four consultation responses were received.

1.1.18 A revised Environmental Report was completed to accompany the Revised Draft Final WRMP. As part of the supporting evidence accompanying the SoR and Revised Draft Final WRMP19, the revised Environmental Report was submitted to the Secretary of State for Environment, Food and Rural Affairs in September 2018.

1.1.19 This PAS has been completed as part of the work to finalise the WRMP following receipt of the direction to publish the Final WRMP from the Secretary of State. Along with the Final WRMP, and other supporting information, it is available on the Portsmouth Water's website at: https://www.portsmouthwater.co.uk/news/publications/water-resources-planning/

1.2 Purpose of the Post Adoption Statement

1.2.1 Article 9 of the SEA Directive and regulation 16 (4) of the SEA Regulations requires that when a plan or programme is adopted (in this case, the WRMP), the consultation bodies, the public and any other Member States consulted on the Environmental Report are informed and the following specific information is made available:

- the plan as adopted;
- a statement summarising:
  - how environmental considerations have been integrated into the WRMP;
  - how the Environmental Report has been taken into account;
  - how opinions expressed in response to the consultation on the Draft WRMP and the Environmental Report have been taken into account;
  - the reasons for choosing the WRMP, as adopted, in the light of the other reasonable alternatives dealt with; and

[5]Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (the SEA Directive) and *Statutory Instrument 2004 No. 1633 – The Environmental Assessment of Plans and Programmes Regulations 2004.*

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- the measures that are to be taken to monitor the significant environmental effects of the implementation of the WRMP.

1.2.2 The purpose of this PAS is to provide the specific information outlined under each of the points listed above. This is presented in the following sections of this statement.

2. How environmental considerations have been integrated into the WRMP

This chapter sets out how environmental considerations have been integrated into the development of the WRMP. It outlines the aspects of WRMP preparation that have included environmental factors and summarises the SEA process.

2.1 Environmental considerations in the development of the WRMP

2.1.1 Environmental considerations have been integral to the development of Portsmouth Water's WRMP 2019. The plan has been prepared in accordance with (amongst others[6]) the Water Industry Act 1991[7], as amended by the Water Act 2003[8] and the Water Act 2014[9] and the Water Resources Management Plan Regulations 2007. Its development has been informed by Government and regulator[10] guidance, aligns with the 25 year environmental plan[11], the National Infrastructure Commission (NIC) report 'Preparing for a drier future'[12] and the relevant River Basin Management Plans. Collectively, this legislation, policy and guidance supports the sustainable use of natural resources.

2.1.2 The subsections that follow set out in more detail how environmental considerations have been taken into account by Portsmouth Water during the following key stages of the plan preparation process:

- supply-demand forecasting;
- options identification, appraisal and selection; and
- consultation and engagement.

Supply-demand forecasting

2.1.3 All water companies in England and Wales are required to set out a baseline forecast of demand for water for a minimum of 25 years, assuming current demand policies. This must be compared against a baseline forecast of available water supply, including current resources and future planned supply schemes/policies in order to determine whether there is likely to be a deficit in any WRZ over the planning horizon of the WRMP.

2.1.4 The baseline supply side forecast for the WRMP includes a reassessment of Deployable Output (DO) of the 21 Company water sources. It includes:

- an assessment of the impact of climate change on each source;

[6] The full suite of legislation is presented in section 2.2 'Regulatory Framework' of the Final WRMP
[7] HM Government (1991) Water Resources Act 1991
[8] HM Government (2003) Water Act 2003
[9] HM Government (2014) Water Act 2014
[10] Environment Agency and Natural Resources Wales (2018) *Water Resources Planning Guideline: Interim Update*. Available at: https://cdn.naturalresources.wales/media/686174/interim-wrpg-update-july18-final-changes-highlighted.pdf.
[11] HM Government (2018) *A Green Future: Our 25 Year Plan to Improve the Environment*. Available at: https://www.gov.uk/government/publications/25-year-environment-plan
[12] NIC (2018) *Preparing for a drier future: England's water infrastructure needs*. Available at: https://www.nic.org.uk/publications/preparing-for-a-drier-future-englands-water-infrastructure-needs/

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- quantifying the impact of any short term loss of production referred to as 'outage';
- an assessment of the use of water in the treatment process itself.

2.1.5 The overall assessment has resulted in a lower estimate of the DO and water available for use than in the previous WRMP14 by an overall 10%.

2.1.6 The detailed demand forecast included the completion of property and population forecasts for the planning period 2020-2045. The results indicate that the Portsmouth Water Operational Area (PWOA) will see a similar increase in both properties and population over the planning period to that estimated in the previous plan, WRMP14. Taking into account proposals for demand management and metering, the forecast for average household demand in a normal year will fall over the planning period from 142 litres per head per day to 129 litres per head per day by 2044/45. Non-household demand is also forecast to fall over the planning period. Leakage has been reassessed as part of a wider industry revised harmonisation programme. As a result of the full Sustainable Economic Level of Leakage (SELL) appraisal, the Company has set an initial leakage reduction target of 7.1Ml/d, reducing leakage from 35 Ml/d down to 27.9 Ml/d by 2025.

2.1.7 For the draft WRMP, the baseline supply/demand balance showed a deficit at average and peak week demand. In addition, Water Resources South East[13] has identified the need for further bulk supplies from Portsmouth Water to a neighbouring water company (Southern Water). Portsmouth Water has included bulk supplies in the WRMP as follows:

- Throughout the planning period (April 2020 - March 2045), the Company will provide Southern Water with two bulk supplies, both for 15 Ml/d to their Sussex and Hampshire zones.
- Two additional supplies to Southern Water, of 9 Ml/d and 21 Ml/d into their Hampshire zone in 2024/25 and 2029/30 respectively.

2.1.8 The total bulk supply to Southern Water will therefore be up to a total of 60 Ml/d by 2030.

2.1.9 These bulk supplies drive the supply/demand balance which shows a deficit at both annual average and critical period throughout the planning period. . Whilst, some uncertainties remain, Portsmouth Water has identified that both supply and demand options are needed to be developed and implemented to address the deficit.

2.1.10 In calculating the baseline forecast of available water supply for the WRMP, Portsmouth Water has taken into account a range of environmental factors, which are summarised below.

Sustainability Reductions

2.1.11 Sustainability reductions, or reductions in abstractions licences which result in reductions in DO, may be required to protect international or national designated conservation sites, to protect locally important but undesignated sites, or to deliver Water Framework Directive (WFD) objectives.

2.1.12 In this context, the environmental sensitivity of the area in which Portsmouth Water operates has been a key consideration in the development of the WRMP. There are ten 'Natura 2000' sites within the PWOA including six SACs and four SPAs[14]. Other internationally important sites include four Ramsar Sites (Solent & Southampton Water; Portsmouth Harbour; Pagham Harbour; and Chichester & Langstone Harbours). In addition, there are 39 SSSIs, 5 National Nature Reserves and 28 Local Nature Reserves.

[13] Water Resources in the South East (WRSE) is a sector-wide partnership that selects the best options to solve deficits across the region, promoting a south-east strategy for water.
[14] JNCC (2017) Protected Sites http://jncc.defra.gov.uk/

2.1.13 Portsmouth Water has completed previous environmental investigations on the effects of abstractions on sources including the Hamble Estuary, Titchfield Haven and Fareham Creek, leading in the case of Titchfield Haven to a reduction of 2 Ml/d in DO. In March 2018, the Environment Agency notified the Company that three water resource investigations would be required during the next five year period (2020 – 2025). Two were associated with conservation objective standards, biodiversity standards and the National Environment and Rural Communities Act 2006 and one related to the WFD. Portsmouth Water is committed to work with the Environment Agency and carry out investigations to assess 'risk of deterioration' at their sources and put any necessary measures in place to prevent deterioration before allowing abstraction to increase.

Resilience

2.1.14 National guidance[15] has emphasised the importance of assessing and improving resilience of the water supply systems and water resources. This has included determining resilience to droughts, and the severity of the drought that would require the imposition of severe restrictions to water supplies beyond the use of hosepipe and non-essential use bans.

2.1.15 To address this, in line with specific guidance[16], and the Cabinet Office's four components of resilience[17], the following have been assessed:

- **Resistance**: the impacts of a 1 in 200 year drought on the supply-demand balance was assessed.
- **Reliability**: the DO of supply side options was assessed at the 1 in 200 year level. It was concluded that they should achieve the identified yields under droughts up to and including this severity. The demand savings were considered to be less reliable because they depend on customer behaviour. However, overall, the Company concluded that the mix of resource options and demand management options together provide a sufficiently reasonable degree of reliability in the Company's plan.
- **Redundancy**: the capacity of the Company's water resource system to ensure continuity of service in the event of disruption has been considered. It relates to network connectivity as well as water resource capacity. The supply-demand surplus is likely to be overstated as it assumes a maximum yield from all options whereas it is more likely that they will vary over time. In reality, sources will be operated to supply only as much water as is required to meet demand (depending on where the water is required and other constraints such as licences). The Company concluded that selected options would result in a degree of redundancy in the water resources system, which will contribute to its resilience.
- **Response and Recovery**: some options would provide Portsmouth Water with an improved understanding of its network and of demands placed on the system. These options comprise the two tranches of the fixed network of permanent noise loggers connected to telemetry (D004a and D004b), as well as metering on the change of occupancy (C006 and C006a), voids metering (C084) and smart meter trial (C005) options. The effect of these options would therefore be expected to improve the Company's identification of, and subsequently its response to and recovery from any disruptive events.

2.1.16 In addition to being supported by the economic appraisal, the Company has taken account of the outcomes of the WRSE Group collaborative project by including Havant Thicket Winter Storage Reservoir (R013). Havant Thicket Winter Storage Reservoir helps support Southern Water deliver

[15] Environment Agency and Natural Resources Wales (2018) *Water Resources Planning Guideline: Interim Update*. Available at: https://cdn.naturalresources.wales/media/686174/interim-wrpg-update-july18-final-changes-highlighted.pdf
[16] UKWIR (2016) *WRMP 2019 Methods – Risk Based Planning*. Report ref: 16/WR/02/11
[17] Cabinet Office (2011) *Keeping the Country Running: Natural Hazards and Infrastructure. – A Guide to improving the resilience of critical infrastructure and essential services*

greater drought resilience in the most cost-effective way by supplying Portsmouth Water customers directly, and freeing water from other abstractions to be transferred. It also increases the diversity of the Company's sources which may potentially achieve a net improvement in resilience.

Options identification, appraisal and selection

2.1.17 Portsmouth Water has identified a supply deficit over the lifetime of the plan. The identification, appraisal and selection of options to address the supply demand deficit has been informed by detailed consideration of their potential environmental effects. Options considered in preparing WRMP19 were broadly categorised as, customer-side, production-side, distribution-side and resource management options.

2.1.18 The process of options identification included a review of as many potential solutions as possible (the 'unconstrained list' of options) to identify 'feasible' (constrained) water management options to address the predicted deficit. These 'feasible' options were then reviewed in relation to financial, environmental and social costing to identify 'preferred options' to resolve the supply deficits.

2.1.19 The approach involved a multi-stage, multi-criteria options appraisal process that included consideration of SEA, HRA and WFD, technical and operational feasibility, resilience considerations and evidence from customer research. The inclusion of the statutory environmental assessment processes helped to embed environmental considerations into the options assessment process from the outset.

2.1.20 The unconstrained options were generated from past and present information available to the Company and take into account the core business functions and government aspirations. This included a review of options identified for previous WRMPs, WRSE options and third party options. The Company's unconstrained option list comprised 183 potential options. The viability of these options was then considered by applying screening criteria to identify those to take forward for more detailed options appraisal, i.e. as part of the 'feasible' options list. The screening criteria included consideration of technical feasibility. This was determined with reference to environmental objectives or regulatory constraints (such as the risks of WFD deteriorations, adverse effects on international and national designated conservation sites, possible significant effects on designated landscapes and cultural features) and any opportunities to mitigate effects. To support this, environmental information collated as part of the SEA was used.

2.1.21 Following the screening, a total of 25 feasible options were identified for Portsmouth Water to consider further. These were then examined further by taking into account financial costs, social and environmental costs, carbon costs, yield and delivery uncertainties.

2.1.22 All feasible options were assessed against the SEA objectives to identify whether potentially significant effects were likely to occur which would then require further assessment, or if serious enough the rejection of an option. The completion of the HRA of the feasible options had the added benefit of identifying options that might be high risk in terms of plan delivery if they were selected, as they were unlikely to meet the requirements of the Habitat Regulations, or where further detailed assessment and studies would be needed before the option could be fully assessed.

2.1.23 The relative economic costs and benefits of all feasible options, to the extent which they have been possible to monetise were analysed using 'current' Economics of Balancing Supply and Demand (EBSD) decision-making approaches to determine the least-cost planning solution.

2.1.24 To develop a combination of feasible options which balances supply and demand throughout the Company's supply area from 2020/21 to 2044/45, the Company has undertaken a programme appraisal. This ensures that the non-monetisable impacts of options (both negative and positive) are taken into account, together with any risks and uncertainties that have not been captured

earlier in the options appraisal process. The programme appraisal is qualitative, assessing the performance of programmes of options in the following areas:

- total cost;
- performance against SEA objectives;
- programme risk (including yield uncertainty, cost and programme uncertainty, Water Framework Directive and flexibility);
- alignment with Government policy priorities;
- customer preferences; and
- resilience.

2.1.25 Portsmouth Water's preferred approach to maintaining the supply-demand balance was then selected. It is focused on optimising the use of existing water sources while continuing to drive down leakage and water consumption to achieve a more sustainable use of water resources. It takes account of environmental protection and customer preferences and the need to provide additional bulk supplies to neighbouring water companies as part of the regional approach to resilience.

Consultation and engagement

2.1.26 Portsmouth Water has undertaken extensive stakeholder and customer engagement during the preparation of the WRMP. This has included ongoing engagement with the statutory SEA consultation bodies and in particular, Portsmouth Water has liaised closely with the EA to ensure that the WRMP complies with the requirements of the Habitats Directive and WFD.

2.2 Environmental considerations in the Strategic Environmental Assessment

2.2.1 To provide the context for the SEA, and in compliance with the SEA Directive and SEA regulations, the relevant aspects of the current state of the environment and its evolution without the WRMP were considered at the outset of the SEA process, along with the environmental characteristics likely to be significantly affected by the plan. This information was contained in the SEA Scoping Report and subsequently updated as part of the Environmental Report.

2.2.2 The key environmental, social and economic issues identified in PWOA and subsequently reflected in the assessment of WRMP options are summarised in **Table 2.1**.

Table 2.1 Key economic, social and environmental issues relevant to the WRMP

Topic	Key Sustainability Issues
Biodiversity	• The need to protect and enhance protected sites designated for nature conservation. • The need to protect and enhance non-designated sites. • The need to continue to improve the condition of priority habitats to support increases in wildlife, biodiversity and important protected species. • The need to maintain/enhance ecological connectivity. • The need to work within environmental limits and capacities.
Geology and Soils	• The need to maintain or improve the quality of soils/agricultural land. • The need to protect and enhance sites designated for their geological interest.

Topic	Key Sustainability Issues
	• The need to make use of previously developed land and minimise land take. • The need to maintain soil function.
Water	• The need to maintain and improve water quality. • The need to maintain seasonal flows in groundwater and surface water. • The need to ensure the continued risk of flooding is mitigated effectively. • The need to improve the ecological status of water bodies.
Air Quality and Climate	• The need to minimise emissions of pollutant gases and particulates and enhance air quality. • The need to reduce the need to travel and promote sustainable modes of transport. • The need to reduce greenhouse gas emissions arising from implementation of the WRMP. • The need to take into account and where possible adapt to the potential effects of climate change. • The need to increase environmental resilience to the effects of climate change.
Human Environment	• The need to ensure that water resource requirements of people and visitors can be met at all times, in a sustainable way. • The need to ensure that water resources remain affordable. • The need to ensure that the WRMP measures do not impact on the health and well-being of all members of the community. • The need to ensure that the WRMP measures do not adversely affect the economy. • The need to ensure that vulnerable people are not affected by implementation of the WRMP measures. • The need to avoid disruption through effects on the transport network. • The need to ensure resilience of water supply/treatment infrastructure against climate change effects.
Material Assets and Resource Use	• The need to promote water efficiency measures (including metering). • The need to ensure that leakage is managed at a sustainable economic level in the region. • The need to maintain water supplies to a level where water demand is met. • The need to reduce energy consumption. • The need to ensure efficient use of resources such as construction materials. • The need to minimise waste arisings, promote reuse, recovery and recycling and minimise the impact of wastes on the environment and communities.
Cultural Heritage	• The need to protect and enhance areas, features, landscapes and sites of archaeological and cultural heritage interest, and their settings.
Landscape	• The need to protect the natural beauty of the area, especially within designated sites such as Chichester Harbour AONB and South Downs National Park. • The need to protect and maintain the landscape distinctiveness of the area.

2.2.3 The issues listed above were reflected in the objectives and guide questions that collectively comprised the framework used to assess the WRMP (see **Table 2.2**).

Table 2.2 Assessment framework used to assess the WRMP

Topic Area	SEA Objective	Guide Questions
Biodiversity	1. To ensure the protection and enhancement of biodiversity, priority habitats and species	Will the option protect and enhance priority species, habitats and sites designated for their nature conservation value?
		Will the option protect and enhance non-designated sites and local biodiversity?
		Will the option provide opportunities for new habitat creation or restoration and link existing habitats as part of the development process?

Topic Area	SEA Objective	Guide Questions
Geology and Soils	2. To ensure the appropriate and efficient use of land and protect soil quality and geodiversity	Will the option protect and enhance coastal and marine habitats and species?
		Will the option result in a change in the quality of habitats due to changes in groundwater/river water quality or quantity?
		Will the option affect riparian vegetation structure?
		Will the option minimise the loss of best and most versatile agricultural land?
		Will the option protect and enhance soil health?
		Will the option minimise conflict with existing land use patterns?
		Will the option minimise land contamination?
		Will the option utilise previously developed (brownfield) land?
		Will the option protect and enhance protected sites designated for their geological interest and wider geodiversity?
Water	3. To protect and enhance water quality and surface and groundwater resources and the ecological status of water bodies	Will the option minimise the demand for water resources?
		Will the option protect and improve surface water, groundwater and coastal water quality?
		Will the option result in changes to river flows?
		Will the option result in changes to groundwater levels?
		Will the option prevent the deterioration of Water Framework Directive (WFD) waterbody status (or potential)?
Water	4. To reduce the risk of flooding	Will the option have the potential to cause or exacerbate flooding in the catchment area?
		Will the option have the potential to help alleviate flooding in the catchment area?
		Will the option enhance water infiltration and retention?
		Will the option be at risk of flooding or be affected by flooding, if it occurred?
Air Quality and Climate	5. To limit the causes and effects of climate change and increase resilience to the consequences of climate change	Will the option reduce vulnerability to the effects of climate change by appropriate adaptation?
		Will the option increase environmental resilience to the effects of climate change?
		Will the option reduce or minimise greenhouse gas emissions?
		Will the option deliver new infrastructure that is energy efficient or makes use of renewable energy sources?
Human Environment	6.To maintain and enhance the economic and social wellbeing of the local community	Will the option ensure sufficient infrastructure is in place for predicted population increases?
		Will the option create local employment opportunities?
		Will the option support the local and regional economy?
		Will the option ensure that an affordable supply of water is maintained and vulnerable customers protected?
		Will the option avoid disruption through effects on the transport network?
		Will the option ensure the continuity of a safe and secure drinking water supply?

Topic Area	SEA Objective	Guide Questions
Human Environment	7.To ensure the protection and enhancement of human health	Will the option ensure that surface water and bathing water quality are maintained within statutory standards?
		Will the option adversely affect human health by resulting in increased noise and/or adverse effects on air quality?
		Will the option affect opportunities for recreation and physical activity?
Material Assets	8. To promote the wise use of resources	Will the option minimise the demand for raw materials?
		Will the option lead to reduced leakage from the supply network?
		Will the option improve efficiency in water consumption?
		Will the option seek to minimise the demand for raw materials?
		Will the option reduce or minimise energy use?
		Will the option promote the re-use and recycling of waste materials and reduce the proportion of waste sent to landfill?
		Will the option promote the use of sustainable design and materials?
Cultural Heritage	9. To conserve and enhance cultural and historic assets	Will the option conserve or enhance the historic environment, including heritage assets such as historic buildings, conservation areas, features, places and spaces, and their settings?
		Will the option conserve or enhance archaeological sites and/or remains?
		Will the option affect public access to, or enjoyment of, features of cultural heritage?
Landscape	10.To conserve and enhance landscape character and other protected features	Will the option minimise adverse visual impacts?
		Will the option avoid adverse effects on, and enhance where possible, protected/designated landscapes (including woodlands), townscapes or seascapes such as National Parks or AONBs be avoided?
		Will the option affect public access to existing landscape features?

2.2.4 The SEA has used a three stage process to assess the effects of the draft and revised draft final WRMP. The first stage is a high level assessment of all feasible (constrained) water management options (including supply side, demand side and leakage options) against the 10 SEA assessment objectives outlined in **Table 2.2** with the findings presented in a summary matrix. The second stage is a more detailed assessment (where information permits) of the preferred options identified in the draft WRMP. For this stage, the potential effects (positive, negative or neutral) and the significance of the effects of each of the preferred options against each of the SEA objectives has been recorded, along with commentary setting out the reasons for the assessment results, any assumptions and uncertainties and, where appropriate, potential mitigation measures. The third stage is an assessment of the revised preferred options that, in combination, form Portsmouth Water's final proposed programme of options using the same assessment matrix as for stage two. The assessments considered:

- the nature of the potential effect (what is expected to happen);
- the timing and duration of the potential effect (e.g. short, medium or long term);
- the geographic scale of the potential effect (e.g. local, regional, national);

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- the location of the potential effect (e.g. whether it affects rural or urban communities, or those in particular parts of the supply area);
- the potential effect on vulnerable communities or sensitive habitats;
- the reasons for whether the effect is considered significant;
- the reasons for any uncertainty, where this is identified; and
- the potential to avoid, minimise, reduce, mitigate or compensate for the identified effect(s) with evidence (where available).

2.2.5 An important part of the SEA process is the assessment of reasonable alternatives. For the purposes of the SEA of the WRMP, the feasible options have been assessed as reasonable alternatives to the preferred options that comprise the Draft WRMP and Revised Draft Final WRMP.

2.2.6 A summary of the assessment of the effects of all the final selected options is included in the Final WRMP.

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3. How the findings of the Environmental Report have been taken into account

This chapter summarises the SEA stages and the relationship with the preparation of the WRMP and presents the key conclusions and recommendations of the SEA, and Portsmouth Water's response.

3.1 Overview

3.1.1 The SEA Environmental Report and WRMP have been developed in tandem. **Table 3.1** details key stages of the SEA and its relationship with the development of the WRMP.

Table 3.1 Key stages in the development of the Environmental Report and its relationship with the WRMP

Strategic Environmental Assessment	WRMP	Relationship
Scoping		
The scoping stage of the SEA identified other relevant plans, programmes and environmental protection objectives which could be affected by, or which could affect, the WRMP. **The scoping stage also characterised the relevant aspects of the current state of the environment and its evolution without the WRMP.**	The WRMP used the plans and programmes identified to ensure that it was fully in compliance with local, national and international policy and legislation. Baseline information supported early optioneering.	The links between the other relevant plans, programmes, policies and strategies that were applicable to the WRMP and its Environmental Report were outlined. These included plans and programmes at an international, European or national level covering a variety of topics. Information on environmental issues helped determine constraints on the suitability of certain options. The SEA objectives ensured that the full range of social, economic and environmental issues was considered in the WRMP's development.
Assessment		
Testing the plan or programme objectives against the SEA objectives	The Environment Report and the WRMP were developed together.	The Environmental Report and option appraisals were jointly used to derive the WRMP.
	The WRMP considered unconstrained water management options for the Portsmouth Water's WRZ forecast to be in deficit. The unconstrained list of water management options was screened using a set of criteria resulting in a shortlist of feasible options that were taken forward for further assessment.	The SEA baseline information and objectives were used to help inform and refine option screening criteria and initial commentary in respect of the potential environmental effects of the unconstrained options.

Strategic Environmental Assessment	WRMP	Relationship
The SEA assessed 25 feasible options compromising production and resource options, customer demand options; and distribution options for potential consideration to address the deficit.	The capital, operating and social and environmental costs of the feasible options were assessed and their environmental effects, taking into account the findings of the SEA, WFD, HRA and E&S costings. Along with ongoing discussion with stakeholders, this information was used to identify potential preferred options.	The feasible options were subject to a range of assessments including SEA as well as assessment of environmental and social costs and benefits. The findings of the SEA helped to identify the preferred options.
The SEA included a detailed assessment of the preferred options.	Consultation was undertaken on the WRMP to incorporate the opinions of stakeholders and customers on economic, customer and financial aspects of the WRMP. The short- and long-term risks of each option were also taken into account. A summary of the likely significant effects on the environment of the final selected options is included in the Final WRMP.	The findings of the detailed assessment supported the selection of the preferred options and rejection of alternatives (the feasible options). The findings of the detailed assessment included mitigation measures that were incorporated into the WRMP.
Reporting		
The key findings of the Environmental Report are presented along with Portsmouth Water's response in **Table 3.2** below. The extent to which the findings have informed the final WRMP is detailed in **Section 5** of this Post Adoption Statement.		
Consultation		
Responses to consultation on the Environmental Report are presented in **Section 4** and **Appendix B**. The extent to which the consultation has informed the final WRMP is detailed in **Section 4 and 5** of this Post Adoption Statement.		
Monitoring		
Proposals for monitoring identified in **Section 6** of this Post Adoption Statement will be implemented by Portsmouth Water.		

3.2 Key findings of the SEA

3.2.1 As demonstrated in **Table 3.1** above, the SEA process has played an important role in the development of the WRMP. The key findings of the Environmental Report are summarised in **Table 3.2** together with Portsmouth Water's response.

Table 3.2 Key findings of the Environmental Report

No.	Key Environmental Report Findings	Portsmouth Water's Response
1	Construction of the selected options for the final WRMP were assessed as likely to result in neutral or minor negative effects against the majority of the SEA objectives.	The findings of the assessment are noted. It is Portsmouth Water's view that as the majority of the preferred options have only neutral or minor effects, it is a reflection of the successful

No.	Key Environmental Report Findings	Portsmouth Water's Response
		integration of environmental assessment outcomes into the WRMP development process.
2	The implementation of Option R013 would exceed £10m in capital investments regarding the construction of Havant Thicket impound reservoir (IR) which is expected to generate supply chain benefits and a number of employment opportunities as well as increased spend in the local economy by contractors and construction workers. Similarly, the implementation of Option C006 would represent a significant capital investment (£21.5m, albeit over 20 years) which is expected to generate a number of long term jobs and which could have effects on the local economy. Notwithstanding, HGV movements associated with the development of Havant Thicket IR and the implementation of Option C006 have the potential to cause traffic disruption within the public road network. Options R013 and C006 have been assessed as having a mixed significant positive effect on SEA Objective 6. No further significant positive effects were identified during the assessment of the construction of the options.	The findings of the assessment are noted. Reflecting the mitigation and enhancements identified in the Environmental Report, Portsmouth Water will seek, where possible, to enhance positive effects on the local economy and communities through: • investment; • utilising local labour; and • appointing local contractors/sub-contractors and utilising locally sourced materials. In order to minimise potential disruption to local highways networks during construction, Portsmouth Water will undertake a Transport Assessment at the project stage (where appropriate) to support the identification of mitigation measures which may include, for example, avoiding HGV movements during peak traffic periods, using alternative routes and where movements are unavoidable, ensuring early notification to local communities.
3	Given the scale of construction activity associated with the construction of Havant Thicket IR (Option R013) and the number of meters implemented in Option C006, both options were assessed as having a significant negative effect on climate change (SEA Objective 5). Option C006 was also assessed as having a significant negative effect against waste and resources (SEA Objective 8). The magnitude of change resulting from the ongoing construction of Havant Thicket IR is expected to have a significant negative effect on the surrounding landscape (SEA Objective 10) as recreational and residential receptors may perceive the works as adversely impacting the visual amenity associated with the proximate South Down National Park's setting in addition to altering the local greenfield setting and character. A significant negative effect against flood risk (SEA Objective 4) was identified for Option R023a. The source boreholes and pumping station where works would be undertaken are located in Flood Zone 3. In consequence activities would be at risk of flooding (1 in 100 or greater annual probability of river flooding).	Through implementation of the WRMP, Portsmouth Water will strive to use the most up to date approaches to mitigate negative impacts and to enhance beneficial effects for each individual scheme, noting that there will be technological advances over the 25 year lifetime of the plan. Measures to reduce greenhouse gas emissions and resource use during construction will be considered including, for example, the use of low emission plant, reused/recycled materials during construction and minimisation of waste. Where possible, Portsmouth Water will seek to reduce the landscape and visual impacts associated with the construction of the preferred options through the implementation of mitigation (e.g. screening). Landscape and visual impacts will be fully considered and assessed at the project stage whilst landscape and visual impact would be a key consideration in the determination (by the relevant local planning authority) of any planning application(s) related to the schemes under the relevant Town and Country Planning regulations. Portsmouth Water will seek to reduce the flood risks associated with any options through consideration, where appropriate, of further assessment, suitable alternative locations, mitigation, adaptive and resilience design measures and/or scheduling of activities.
4	The operation of the selected options of the final WRMP are assessed as likely to have either neutral or positive effects against the majority of SEA objectives during operation. The design capacity of Options R013 and R022a, 23 Ml/d and 12.5 Ml/d respectively, would help to ensure the continuity of a safe and secure drinking water supply which may in-turn support economic and population growth. In the case of Option R013, the new	The findings of the assessment are noted. It is Portsmouth Water's view that as the majority of the preferred options have only neutral or minor effects, it is a reflection of the successful integration of environmental assessment outcomes into the WRMP development process. Portsmouth Water will support economic growth in the area through continuing local investment and considering the potential to hire local contractors where possible.

No.	Key Environmental Report Findings	Portsmouth Water's Response
	reservoir could potentially provide new social and recreational facilities and activities in addition to increasing foot traffic within Portsmouth which could provide a minor economic boost to local businesses. The operation of C079 and C080 would generate reductions of water demand by domestic and commercial customers through the restriction of non-critical water uses should facilitate a water saving of up to 8.1 Ml/d to 8.3 Ml/d which could subsequently be utilised elsewhere during times of drought. Similarly, D004a and D004b would generate notable water savings through leakage reduction. As all four options would generate savings in excess of 5 Ml/d; therefore, consistent with the definitions of significance, they were assessed as having a significant positive effect on resource use (SEA Objective 8)	
4	In some cases, there is an opportunity to reduce some of the potential negative effects. The detail of this mitigation needs to be considered during the planning phases of each of the individual component schemes within the preferred options. Example mitigation measures identified include: • Depending on the location of the leakage repair works appropriate mitigation measures would be adopted during construction to manage the risk of flooding and minimise any potential impacts on sites important to biodiversity, heritage assets and designated landscape sites.	The findings of the assessment are noted. Mitigation will be considered during the planning phases of each of the individual schemes. Best practice procedures will be followed for all construction works and opportunities will be sought to go above and beyond standards set down in guidance.

4. How the opinions expressed in response to the consultation have been taken into account in preparing the Final Plan

This chapter summarises the consultation stages for the WRMP and SEA, and outlines how the consultation responses have been taken into account.

4.1 Overview

4.1.1 A summary of the approach to consultation and the outcomes on the SEA and Draft WRMP are provided in the sections that follow.

4.2 SEA consultation

4.2.1 Consultation has been an integral part of the SEA of Portsmouth Water's WRMP. This has included the following main activities:

- consultation with the statutory SEA bodies on the scope of the SEA; and
- formal public consultation on the Environmental Report containing the SEA of the Draft WRMP.

SEA scoping consultation

4.2.2 Portsmouth Water published the SEA Scoping Report for the WRMP for a consultation period beginning the 22nd July to 26th August 2016. Six responses were received from:

- Historic England;
- Natural England;
- Environment Agency;
- Arun District Council;
- South Downs National Park Authority; and
- Sussex Wildlife Trust.

4.2.3 The comments received from these organisations were shown in Appendix C of the Environmental Report containing the SEA of the draft WRMP (see https://www.portsmouthwater.co.uk/news/publications/water-resources-planning/.

4.2.4 The responses resulted in amendments to the baseline information and assessment framework that has been used to assess the options.

4.2.5 Responses broadly welcomed the proposed scope of the SEA, with comments providing:

- Suggestions for additional plans and programmes and baseline information. These were largely accepted and included in the updated contextual information presented in Sections 2 and 3 of the Environmental Report.

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- Suggested amendments to the SEA Objectives and guide questions that comprise the SEA framework. These were also largely accepted and included, for example:
  - suggesting additional guide questions for soil health, water infiltration and retention and riparian vegetation structure;
  - suggesting an additional guide question for no deterioration of Water Framework Directive (WFD) waterbody status (or potential);
  - suggesting a revised guide question for cultural heritage focused on archaeological remains.

Public consultation on the Environmental Report

4.2.6 The Environmental Report documented the findings of the assessment of feasible options, the preferred options and alternatives, outlining where any likely significant effects were identified and proposing, where appropriate, mitigation measures. This was subject to consultation alongside the Draft WRMP for 12 weeks from 5th March and 25th May 2018.

4.2.7 The Environmental Report indicated that Portsmouth Water welcomed, in particular, views on:

- Whether the Environmental Report had described the likely significant effects of the feasible and preferred options?
- Whether there are other likely significant environmental effects that should have been identified that would have affected the choice of preferred option included in the Draft WRMP
- Whether the proposed arrangements for monitoring the significant effects of the implementation of the WRMP were agreed with?

4.2.8 Responses were received to the consultation from the following organisations:

- Environment Agency;
- Natural England;
- Hampshire and Isle of Wight Wildlife Trust; and
- Sussex Wildlife Trust.

4.2.9 Comments received included those:

- requesting further evidence of how the SEA has influenced the development of the WRMP;
- requesting further information on the approach to WFD;
- welcoming the principle of developing a winter storage reservoir at Havant Thicket as a key element of the water resource planning.

4.2.10 The comments received from these organisations and Portsmouth Water's response are detailed in **Appendix B** of this PAS.

4.3 Consultation on the Draft WRMP

4.3.1 Consultation on the development of the WMRP has included:

- **Ongoing dialogue with the members of Water Resources in the South East (WRSE)** to identify how best to share the water resources at a regional level and address regional resilience to current and future pressures on water resources arising from climate change, population growth and the need to protect the environment. The core membership comprises

six water companies (Affinity Water, South East Water, Southern Water, SES Water, Thames Water and Portsmouth Water) working alongside the Environment Agency, Ofwat, the Consumer Council for Water, Natural England, Defra, the Canal & River Trust, the Greater London Authority, and other partners.

- **Ongoing engagement with WRMP Stakeholder Group**, established at WRMP14 to facilitate discussion with those organisations who made representations or expressed an interest in the Company's previous plan.
- **Ongoing discussion with the Portsmouth Water Customer Challenge Group**, who help to direct Portsmouth Water in both engaging with customers, for example, the Group has considered the following:
  - relevance and make-up of the sample for the Company's qualitative research on the WRMP;
  - how conflicts between different customer feedback should be treated and the associated weighting each element should be given as part of the triangulation process; and
  - how customer acceptability has translated into both short-term priorities (the setting of Performance Commitments over the next five years) and longer-term commitments.
- **Engagement with the local authorities** in the PWOA with the aim of developing a consistent set of assumptions between Portsmouth Water's WRMP and Local Authority Plans.
- **Customer research** including qualitative customer research (such as focus groups, surveys), quantitative research (examining future performance levels) and ongoing customer insight data (such as that captured from inbound customer contacts, complaint and compliment data).
- **Pre-consultation on the Draft WRMP** with regulators, Government, neighbouring companies and key stakeholders such as the Consumer Council for Water, the EA and Ofwat to ask those organisations what they expected from the WRMP and to highlight any issues.
- **Formal consultation on the Draft WRMP** (alongside which the SEA Environmental Report was published).
- **Publication of Statement of Response**, outlining how the comments received on the Draft WRMP have been taken into account in the development of the Final WRMP.

Consultation on the Draft WRMP

4.3.2 The Draft WRMP was made available for public consultation from 5th March until 25th May 2018. The plan was published in accordance with the Water Industry Act 1991, Sections 37 A to D, as amended by Section 62 of the Water Act 2003.

4.3.3 Representations on the Draft WRMP were received from a total of 15 organisations:

- Environment Agency;
- Water Services Regulation Authority (Ofwat);
- Defra;
- Natural England;
- West Sussex County Council;
- Hampshire County Council;
- Partnership for Urban South Hampshire;

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- Havant Borough Council;
- Test Valley Borough Council;
- Fareham Borough Council;
- Rowlands Castle Parish Council;
- Sussex Wildlife Trust;
- Wessex Chalk Stream and Rivers Trust;
- Canal & River Trust;
- Hampshire and Isle of Wight Wildlife Trust.

4.3.4 During the consultation period, Portsmouth Water also contacted over 38,000 customers directly and invited them to respond to an online survey. A total of 2,212 online questionnaires were completed.

4.3.5 The Company's SoR was published in September 2018 (see https://www.portsmouthwater.co.uk/news/publications/water-resources-planning/).

4.3.6 The main changes made to the draft WRMP as a result of the consultation, customer engagement and representations made by Defra are summarised in **Table 4.1**.

Table 4.1 Main changes that have been made to the draft WRMP

Issue	Issue Description of Main Changes made by Portsmouth Water
Customer and stakeholder engagement	The Company has made significant changes to the Draft Plan to capture the customer and stakeholder engagement activities that have been and continue to take place. This is summarised in a new chapter.
Property forecast	The forecast of property growth within the supply area has been revised to take into account comments made by EA and Ofwat. For the Final WRMP, Local Authority plan-based figures have been used. The changes may result in a less even profile for housing growth with a steeper increase in property growth in the early part of the planning period until 2030.
Leakage	Additional leakage options have been included in the Final WRMP and text amended so that leakage options are presented more clearly. For the Final WRMP, in addition to the traditional district metering approach, a more 'innovative' option of permanent noise loggers in a fixed network has been considered. This option uses telemetry to collect data continuously. The new option is selected in the preferred plan in preference to the district metering.
Metering and Per Capita Consumption	The Company's metering programme has been updated as a result of the customer consultation and the views expressed by the Regulators. For the Final Plan, the Company's metering programme comprises a baseline of Optant metering and New Build metering. The preferred plan includes Change of Occupier Metering, voids metering and the 'meters not for revenue' smart meter trial which is designed to increase the number of meter optants and will provide valuable information to customers on their usage. The preferred plan also includes water efficiency schemes which will assist customers in reducing their consumption. Following comments received from the EA, text has been added to provide further explanation with regards to the two phases of Change of Occupier metering Although a programme of compulsory metering cannot currently be implemented, it has been costed, and the effect of implementing such a programme has been considered with the sensitivity testing undertaken on the preferred plan.

Issue	Issue Description of Main Changes made by Portsmouth Water
Options appraisal	The Company's option appraisal and programme appraisal process has been updated as a result of comments from the Regulators. The Final WRMP contains revised text that sets out the Company's options appraisal process more clearly and contains more information around how the final plan has been taken through programme appraisal.
Sensitivity Testing	The Company's sensitivity testing has been revised following comments received from the Regulators. The Final WRMP contains a section which outlines how the sensitivity testing has been undertaken and describes why certain scenarios were considered, the likelihood of the scenario and how the Company will manage these risks. The results are presented and discussed in detail. The sensitivity scenarios consider the main areas of uncertainty concerning risk to supply and demand. The sensitivity scenarios include possible future sustainability changes including tighter flow standards on the River Itchen.
Havant Thicket Reservoir and Bulk supplies	In light of the comments received by customers and stakeholders, the text in the Final WRMP has been revised to make it clearer how the strategic reservoir option will be used as well as addressing concerns raised on the impact on bills and environmental impacts.
Headroom	EA and Ofwat feedback highlighted double counting of oil spill shutdown events in the headroom and outage calculations and the EA asked the Company to revisit options to reduce uncertainty as well as clarifying its approach on Time Limited Licences (TLL).
Outage	Stakeholder feedback highlighted issues with the methodology for calculating outage in relation to accounting for changes to the supply system in the planning period, the impact of activities to reduce outage and potential double counting of pollution incidents. EA feedback also highlighted issues with the Company's high level outage in the Draft plan, potentially driving unnecessary investment and impacting resilience and transfers. The outage assessment has therefore been revisited to reflect operational practice during critical supply-demand periods.
Directions	A table demonstrating compliance with the Directions has been included. This signposts the location where each Direction has been addressed. Additional text has been included in the relevant sections to provide further clarity on costs and assumptions to address comments received from the EA relating to Direction 3 e, f and h.

4.3.7 As outlined in **Table 4.1**, following consideration of the responses received on the draft WRMP19, Portsmouth Water updated the plan in light of the submissions with changes made to a number of aspects of the planning and its treatment of leakage, options appraisal, forecasting and proposed schemes.

4.3.8 Following a review of the SoR and the changes made in the Draft WRMP, on the 5th November 2019 the Secretary of State for the Environment, Food and Rural Affairs gave Portsmouth Water direction to publish the Final WRMP.

5. The reasons for choosing the WRMP as adopted, in light of the other reasonable alternatives dealt with

This chapter presents Portsmouth Water's reasons for choosing the WRMP as adopted, in light of the other reasonable alternatives dealt with.

5.1 Reasons for the selection of the final WRMP

5.1.1 Long-term planning for the provision of public water supplies is a vital aspect of maintaining the security of supply to customers whilst respecting the needs of the environment. Water resource planning has been a regular activity for water companies for many decades, and the Government has introduced legislation that requires companies to prepare Water Resources Management Plans (WRMPs) and for public consultation to be carried out. Portsmouth Water's Final WRMP 2019 has been prepared in accordance with the statutory guidance and policies issued by the Environment Agency and Defra.

5.1.2 In preparing the plan, Portsmouth Water has engaged extensively with customers and stakeholders both prior to publishing its Draft WRMP and during the public consultation period following its publication. The Company has taken the views of its customers and stakeholders very seriously and has demonstrated the influence that this engagement process has had on shaping its Final WRMP. In parallel, the plan is closely aligned to the Government's expectations for ensuring resilient water supplies in the long-term enabled by reductions in demand and regional resource sharing through the use of greater bulk supplies to neighbouring companies.

5.1.3 In developing its WRMP, the Company has worked closely with the Water Resources in the South East (WRSE) Group which is a sector-wide partnership that selects the best options to solve deficits across the region. The modelling undertaken by the WRSE Group indicated that there is both the scope (through options available to Portsmouth Water) and the need for the Company to provide additional bulk supplies to Southern Water, to assist its neighbour in meeting deficits it faces during the planning period. In consequence, the WRMP 2019 will make a major contribution to long-term resilient water resources in the South East by providing additional bulk supplies to Southern Water (SWS). This will be enabled by a twin-track approach to reduce leakage and lower PCC, and the development of Havant Thicket Winter Storage Reservoir (HTWSR). The reservoir was selected by the Water Resources in the South East (WRSE) modelling as a solution to future potential water shortages in the region.

5.1.4 The preferred plan has a strong focus on demand management measures (leakage, metering and water efficiency) and demonstrates the Company's commitment to a twin-track approach of resource management and customer- and distribution-side options to balance supply and demand.

5.1.5 Portsmouth Water chose the Final WRMP options using a standard industry method that includes consideration of technical feasibility, financial costs and benefits, and quantified impacts on the environment and community, taking into account the findings of the SEA, WFD and HRA as well as input from key stakeholders. The analysis undertaken indicates that the options selected under the preferred plan are required under a range of drought conditions and not just in a 1 in 200 -year drought event.

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5.1.6 The Final WRMP options represents Portsmouth Water's preferred, or best value solution, rather than the least cost solution. It is focused on optimising the use of existing water sources while continuing to drive down leakage and water consumption to achieve a more sustainable use of water resources. It takes account of environmental protection and customer preferences and the need to provide additional bulk supplies to neighbouring water companies as part of the regional approach to resilience.

6. The measures decided concerning monitoring

This chapter presents the monitoring measures to be used to monitor the likely significant environmental effects of implementing the WRMP.

6.1 Monitoring measures

6.1.1 The SEA Directive requires the significant environmental effects of implementing a plan to be monitored. Monitoring the effects of the WRMP can help to answer questions such as:

- Were the SEA predictions of effects accurate?
- Is the WRMP contributing to the achievement of the SEA objectives?
- Are mitigation measures performing as well as expected?
- Are there any adverse effects? Are these within acceptable limits, or is remedial action desirable?

6.1.2 Portsmouth Water expect to monitor the effects of the WRMP alongside the other impacts of their operations, and as such, are likely to rely on existing sources of information that are collected either by Portsmouth Water or by other relevant organisations such as the Environment Agency or Natural England.

6.1.3 Consistent with the proposals of the Environmental Report, potential effects against all the SEA objectives have been included in the monitoring framework, which is set out in **Table 6.1**. Portsmouth Water will take a broad view of the findings of their ongoing monitoring processes to identify whether the WRMP has any significant unforeseen effects. Where these are identified, Portsmouth Water may be required to put in place specific monitoring arrangements and will consider how best to mitigate or avoid the adverse consequences.

Table 6.1 Measures for monitoring effects

Objective	Indicator	Source of Information	Commentary
1. To ensure the protection and enhancement of biodiversity, priority habitats and species.	Condition of specific protected sites (e.g. SACs and SPAs)	Natural England	Open communication between Natural England and Portsmouth Water results in up-to-date information and identification of any potential issues.
	Condition of SSSIs on water industry land holdings	Natural England, Portsmouth Water	Condition assessment of designated land on Portsmouth Water's landholdings, both area and condition may change.
	Biological monitoring (macroinvertebrates, macrophytes, fisheries, Bird surveys)	Environmental Agency, Portsmouth Water, Angling clubs, British Trust for Ornithology	Using these data sets and comparing them against other monitored information such as levels and flows will assist in identifying whether there are any adverse effects and if mitigation measures are performing as well as expected.

Objective	Indicator	Source of Information	Commentary
	Number and area of new or restored habitats	Portsmouth Water	Portsmouth Water could consider recording the number of locations and area of habitats created or restored, e.g. Havant Thicket IR.
2. To ensure the appropriate and efficient use of land and protect soil quality and geodiversity.	Number/ floorspace of water infrastructure built on previously developed land	Portsmouth Water	Portsmouth Water could record the number and floorspace of new buildings that are built on previously developed land.
	Condition of sites designated for geological interest (e.g. geological SSSIs) on water industry land holdings	Portsmouth Water	Condition assessment of designated land on Portsmouth Water's landholdings, both area and condition may change.
3. To protect and enhance water quality and surface and groundwater resources and the ecological status of water bodies.	River flows, river levels, lake and reservoir levels. Water quality of surface waters	Portsmouth Water, Environmental Agency	At sensitive sites previous studies should be used to inform monitoring and assessment. For example any Drought Permit (DP) Environmental Assessments and associated environmental monitoring plans.
	River flow and level characteristics	Portsmouth Water, Environmental Agency	Monitoring can be compared to historic records.
	Groundwater levels, recharge characteristics and abstracted groundwater quality	Portsmouth Water, Environmental Agency	At sensitive sites previous studies should be used to inform monitoring and assessment. For example any Drought Permit (DP) Environmental Assessments and associated environmental monitoring plans.
	Leakage	Portsmouth Water Annual Performance Report	Portsmouth Water report these data to Ofwat and the EA as part of the annual returns process.
4. To reduce the risk of flooding.	Number of properties that experience flooding as a result of burst in the water supply distribution network.	Portsmouth Water	Portsmouth Water could record the number of properties that experience flooding as a result of bursts on the water supply distribution network.
	Number of properties that experience internal flooding from public sewers.	Portsmouth Water, Environmental Agency	Portsmouth Water report these data to Ofwat as part of the statutory returns process.
5. To limit the causes and effects of climate change and increase resilience to the consequences of climate change.	Quantity of greenhouse gas emissions per megalitre of water supplied	Portsmouth Water	Portsmouth Water's energy managers can use company data taken from the Annual Report, and guidance from the UKWIR greenhouse gas workbook and BEIS (Department for Business, Energy & Industrial Strategy) conversion factors to derive this information.

Objective	Indicator	Source of Information	Commentary
	Energy use used in the operational phase of water treatment and supply.	Portsmouth Water Annual Performance Report	Portsmouth Water should hold and record energy consumption data e.g. via accounts / invoices to enable quantification of the proposed indicator.
	Renewable energy generated; renewable energy purchased.	Portsmouth Water Annual Performance Report	Portsmouth Water should record renewable energy generation data, in addition to data on renewable energy purchased e.g. via accounts / invoices.
6. To maintain and enhance the economic and social wellbeing of the local community.	Population and projected population change over time	Portsmouth Water, Office for National Statistics	Portsmouth Water report these data to the Environmental Agency as part of the annual return process and to Ofwat as part of the Strategic Business Plan.
	Proportion of customers who pay more than 3% of their income on water and sewerage	Portsmouth Water	Portsmouth Water could identify the proportion of customers who pay more than 3% of their income on water and sewerage.
7. To ensure the protection and enhancement of human health.	Compliance with drinking water standards at customers' taps (%).	Portsmouth Water – drinking water quality report	Portsmouth Water reports these data to Ofwat as part of the statutory returns process (Annual Performance Report) and to the Drinking Water Inspectorate.
	Compliance with water quality standards under the EC Bathing Waters Directive.	Environment Agency	The Environment Agency monitors the compliance of bathing waters and reports this annually.
	Number of Portsmouth Water sites with public access which provide sporting, recreational and leisure resources and number of visits per year.	Portsmouth Water	Portsmouth Water hold information on the number of annual visitors to sites where specific visitor facilities are provided (e.g. Staunton Country Park)
	Number of nuisance-related complaints e.g. noise, dust	Portsmouth Water	Portsmouth Water could record the number of nuisance-related complaints made in relation to implementation of the WRMP.
8. To promote the wise use of resources.	Chemicals Use in Water Supply	Portsmouth Water (services data)	Information on chemical use should be held in accounts.
	Amount of primary and recycled aggregates used.	Portsmouth Water (contractors/consultants)	Information on aggregate use and recycling should be held by Construction managers and accounts (contractors / consultants accounts, waste or procurement records)
	Proportion of waste sent to landfill	Portsmouth Water	Information on quantities, classification and proportion of waste disposed to landfill should be held by Portsmouth Water.
	Levels of leakage	Portsmouth Water Annual Performance Report	These indicators will help identify whether the WRMP does contribute to the achievement of this SEA objective.

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Objective	Indicator	Source of Information	Commentary
	Trends in overall per capita consumption.	Portsmouth Water Annual Performance Report	Portsmouth Water should hold and record capita consumption data.
9. To conserve and enhance cultural and historic assets.	Loss / damage or discovery / protection of cultural, historic and industrial heritage features. Including loss of landscapes of Historic Interest and natural heritage features (including for example field systems, field boundaries) that contribute to the cultural and historic distinctiveness of the area.	Portsmouth Water, Historic England	Historic England's regional field monument wardens monitor the condition of all statutorily protected monuments.
10. To conserve and enhance landscape character and other protected features.	Loss or damage to landscape character and features of designated sites.	Portsmouth Water	Portsmouth Water could consider recording the number and floorspace of new buildings above ground infrastructure that are built within designated landscape sites.

Appendix A SEA Compliance

Table A.1 details the SEA Regulations' requirements of the Post Adoption Procedures and indicates where relevant information required can be found in this report.

Table A.1 Compliance of this Report with the Requirements of the SEA Regulations

SEA Regulations Requirement	Location in the Post Adoption Statement (where appropriate)
Information as to adoption of plan or programme (SEA regulation 16)	
(1) As soon as reasonably practicable after the adoption of a plan or programme for which an environmental assessment has been carried out under these Regulations, the responsible authority shall - **(a) make a copy of the plan or programme and its accompanying environmental report available at its principal office for inspection by the public at all reasonable times and free of charge; and** **(b) take such steps as it considers appropriate to bring to the attention of the public** **(i) the title of the plan or programme;** **(ii) the date on which it was adopted;** **(iii) the address (which may include a website) at which a copy of it and of its accompanying environmental report, and of a statement containing the particulars specified in paragraph (4), may be viewed or from which a copy may be obtained;** **(iv) the times at which inspection may be made; and** **(v) that inspection may be made free of charge.**	A copy of the WRMP and accompanying reports and documentation is available at: https://www.portsmouthwater.co.uk/news/publications/water-resources-planning/ A paper copy of the WRMP, Environmental Report and this Post Adoption Statement are available for public viewing at: Portsmouth Water Ltd West Street Havant Hampshire PO9 1LG The office is open from 8:30am until 4:30pm Monday to Friday.
(2) As soon as reasonably practicable after the adoption of a plan or programme - **(a) the responsible authority shall inform—** **(i) the consultation bodies;** **(ii) the persons who, in relation to the plan or programme, were public consultees for the** **purposes of regulation 13; and** **(iii) where the responsible authority is not the Secretary of State, the Secretary of State;** **and** **(b) the Secretary of State shall inform the Member State with which consultations in relation** **to the matters referred to in paragraph 3.**	A copy of the WRMP and accompanying reports and documentation is available at: https://www.portsmouthwater.co.uk/news/publications/water-resources-planning/ A copy of the SEA Environmental Report is available at: https://www.portsmouthwater.co.uk/news/publications/water-resources-planning/ This Post Adoption Statement addresses (iii) and contains particulars specified in paragraph (4) as outlined below.
(3) The matters are -	

SEA Regulations Requirement	Location in the Post Adoption Statement (where appropriate)
(a) that the plan or programme has been adopted; **(b) the date on which it was adopted; and** **(c) the address (which may include a website) at which a copy of—** **(i) the plan or programme, as adopted,** **(ii) its accompanying environmental report, and** **(iii) a statement containing the particulars specified in paragraph (4),** **may be viewed, or from which a copy may be obtained.**	
(4) The particulars referred to in paragraphs (1)(b)(iii) and (3)(c)(iii) are -	
(a) how environmental considerations have been integrated into the plan or programme;	Section 2
(b) how the environmental report has been taken into account;	Section 3
(c) how opinions expressed in response to - **(i) the invitation referred to in regulation 13(2)(d);** **(ii) action taken by the responsible authority in accordance with regulation 13(4),** **- have been taken into account;**	Section 4 and Portsmouth Water's Statement of Response (see: https://www.portsmouthwater.co.uk/news/publications/water-resources-planning/)
(d) how the results of any consultations entered into under regulation 14(4) have been taken into account;	Not applicable - no transboundary consultation with other EU Member States took place
(e) the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with; and	Section 5
(f) the measures that are to be taken to monitor the significant environmental effects of the implementation of the plan or programme.	Section 6.
Monitoring of implementation of plans and programmes (SEA regulation 17)	
(1) The responsible authority shall monitor the significant environmental effects of the implementation of each plan or programme with the purpose of identifying unforeseen adverse effects at an early stage and being able to undertake appropriate remedial action.	Monitoring procedures are set out in Section 6. Portsmouth Water will identify effects and undertake remedial action (as necessary) as the WRMP is implemented.
(2) The responsible authority's monitoring arrangements may comprise or include arrangements established	The monitoring procedures set out in Section 6 will complement existing monitoring arrangements where possible.

SEA Regulations Requirement	Location in the Post Adoption Statement (where appropriate)
otherwise than for the express purpose of complying with paragraph (1).	

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Appendix B Environmental Report consultation responses

Table B.1 Environment Agency (on the Environmental Report accompanying the Draft WRMP)

Consultation Question	Section	Consultee Response	Response/Action
Q1. Does the assessment set out in this SEA Environmental Report describe the likely significant environmental effects of the feasible and preferred options?		None received	N/A
Q2. Do you think that there are other likely significant environmental effects that should have been identified that would have affected the choice of preferred option included in the Draft Water Resources Management Plan?		It is not clear whether/how the SEA has influenced the preparation of the draft plan and selection of the preferred options and how the least cost plan was amended to include the best environmental options.	Comment noted. The SEA report includes a summary in Figure 1.3 of the interlinkages between the SEA process and the development of the WRMP. The Assessment Methodology (section 4.4) outlines the assessment approach to the options. Section 6.1 and Section 6.3 of the revised Environmental Report provides information on the factors (and decision making processes) that informed the selection of the preferred options. In this regard, they are supplementary to the information outlined with the dWRMP with respect to the options appraisal, environmental appraisal and programme appraisal. The SEA Post Adoption Statement (PAS), consistent with regulation 16(4) of The Environmental Assessment of Plans and Programmes Regulations 2004, will include details of how environmental considerations have been integrated into the final WRMP and how the findings of the Environmental Report have been taken into account. The PAS will also present the reasons for choosing the options that make up the final WRMP, in the light of the others considered.
		The company has not undertaken a WFD assessment of all the options in its plan. It is noted that the baseline analysis outlines the current baseline status of river, coastal and groundwater bodies. The SEA Environmental Report, however, does not	Comment noted. It is not appropriate to consider the effects of all the WRMP options on WFD water bodies. These will include options for

Consultation Question	Section	Consultee Response	Response/Action
		provide any specific explanation of the basis on which any potential effects on WFD objectives and waterbody status have been assessed for the options under consideration and their construction and operational phases. In reporting on SEA objective 3 (water), the assessment matrices in places refer to previous WFD investigations / assessments/ modelling (e.g. pages E5; E8; F8; F21), but the background to these references is not provided and it is unclear whether this previous work requires updating in the context of the draft WRMP 2019 and how any updates will be progressed. For example, in places the need for further modelling is highlighted (e.g page E14; F41). The draft WRMP includes further details on activities under the National Environment Programme (3.3.6 and 3.3.7) and it is stated that abstraction at identified sites is considered by Portsmouth Water to be sustainable as current licences have been varied. Elsewhere the draft plan (6.6.3 Maximise Deployable Output) highlights that the Environment Agency has raised concerns about WFD waterbody deterioration in relation to two options (Street R021a and R023a). It is not clear how potential impacts on water and in particular WFD requirements have been evidenced for options and the significance of effects assessed, including any risk to WFD compliance. The company should detail within its SEA Environmental Report how and on what basis the potential effects of the proposed options on WFD waterbody status have been assessed and how any further assessment will be progressed to address any identified potential risk to WFD compliance.	demand management and water efficiency and leakage that will not have any effect on WFD water bodies (and would be outside the scope of a WFD assessment). The effects on WFD for the water supply options have been considered, where appropriate, against the SEA Objective 3 (To protect and enhance water quality and surface and groundwater resources and the ecological status of water bodies). Information used within the assessment of each has been drawn from the collected baseline information presented in Section 3 of the initial and revised Environmental Report (which includes references to previous studies undertaken by (or on behalf of) Portsmouth Water for a variety of water bodies as well as information from the EA e.g. WFD Classification Data for South East River Basin District. The definitions of significance (Appendix D) provide the basis for scoring any identified effects for all SEA assessment objectives (including objective 3) which have been recorded for the options. R021a Funtington DO Recovery is incorrectly described as 'Street' in the EA submission and there may be some unintended confusion with R023a West Street DO Recovery. In the case of R021a, as no additional abstraction outside the current licence would occur, the operation of the option was assessed as neutral against SEA objective 3. In the case of R023a, the assessment notes that 'the EA has expressed some reservations that this option could have a negative effect on the lower reaches of the River Meon during periods of low flow in combination with existing abstractions for spray irrigation… In the 2016 WFD classification (Cycle 2) the River Meon was classified as at moderate ecological status and good chemical status. The magnitude of the potential impact on the River Meon remains uncertain until further investigation is conducted. On this basis, whilst within licensed amount, the operation of this option is assessed as having an uncertain effect on water quality and quantity (SEA Objective 3)'.

Consultation Question	Section	Consultee Response	Response/Action
			Portsmouth Water will determine what further actions are required, as part of the finalisation of the WRMP.
		In the revised submitted version of dWRMP (March 2018), it is noted that Option R060 has been removed and Options R021a and R023a have been included in the assessment (sections 5.2; 5.3; 6.2 and Appendix E). However, concern still remains around potential secondary, synergistic and cumulative effects of the options. Section 6.3 focuses on the potential in-combination effects with other plans, but has limited information on the potential cumulative effects of the preferred options that comprise the draft plan and whether any significant environmental effects are likely due their interaction.	Comment noted. The SEA for the Draft WRMP presented the assessment of in combination impacts of the options included in the preferred plan. The results were reported in Table NTS.7 of the non-technical summary (the last two rows show the cumulative effects in construction and operation) and described on pages 20 to 25 of the non-technical summary. The full results of the in-combination assessment were presented in section 6.2 on pages 114 to 122 of the SEA Environmental Report. Section 6.3 of the Environmental Report (page 123-126) followed on from this assessment of cumulative impacts of options in the preferred plan and was a separate analysis which focused on the effects of the options that comprised the Draft WRMP preferred plan in combination with other plans and programmes. The Revised Plan contains a slightly different combination of options and therefore the assessment within the SEA Environmental Report has been updated accordingly. The results from the updated analysis have been included within the Draft Final WRMP.
		The plan contains carbon emissions associated with most preferred options in AMEC SEA Appendix E. However, the plan does not clearly present greenhouse gas emission estimates associated with: R021a deployable output Recovery R023a deployable output Recovery Current operations.	Comment noted. Estimates of embodied and operational carbon have been included for all options.
Q3. Do you agree with the proposed arrangements for monitoring the significant effects of the implementation of the WRMP? If not, what measures do you propose?		None received	N/A

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Table B.2 Natural England (on the Environmental Report accompanying the Draft WRMP)

Consultation Question	Section	Consultee Response	Response/Action
Q1. Does the assessment set out in this SEA Environmental Report describe the likely significant environmental effects of the feasible and preferred options?		None received	N/A
Q2. Do you think that there are other likely significant environmental effects that should have been identified that would have affected the choice of preferred option included in the Draft Water Resources Management Plan?		Natural England broadly welcomes the principle of developing a winter storage reservoir at Havant Thicket as a key element of the water resource planning in the dWRMP. By enabling the export of larger bulk supplies, the reservoir provides a key part of the solution to sustainability reductions required from Southern Water licence abstractions on the River Itchen SAC and River Test SSSI. These reductions are necessary to meet the conservation requirements of these two rivers in relation to their SAC and SSSI objectives on flow. Indirectly the reservoir will benefit the conservation of the Rivers Itchen and Test and, being in close proximity to important bird areas on the Solent (including large SPAs), is likely to attract an important freshwater bird interest if suitable habitat and sanctuary conditions are provided. These are highly significant positive impacts. Nonetheless we recognise that more work will be required to fully understand and mitigate the potential impacts of the scheme upon biodiversity. We are less content with unqualified statements in the dWRMP that the reservoir provides biodiversity benefits (e.g. paras 1.6 and 6.6.1). These statements also do not properly reflect the assessment of this proposal on biodiversity in the SEA which identified a minor negative effect from construction and a minor positive effect from operation. The reservoir will result in an extensive loss of terrestrial habitat, including areas with habitat and habitat of species of principal importance that fall under the requirements of Section 40 of the Natural Environment and Rural Communities Act 2006. Most notable is the loss of woodland habitat, much on ancient sites. This is a significant negative impact. As yet the company has not demonstrated how it will meet legislative and national planning policy requirements concerning this loss of biodiversity. This is	Comment noted. In extensive commentary on the effects of R013 on SEA Objective 1 (To ensure the protection and enhancement of biodiversity, priority habitats and species), consideration is given to the construction and operational effects on European sites, national designated sites, other habitats and protected species. The assessment notes that construction of the new Havant Thicket reservoir 'would result in a significant loss of semi-rural greenfield land and woodland/BAP site (currently under review regarding their status as Ancient Woodland); specifically, the Avenue (7.93 ha) and Upper Lake, Middle Clearing (2.53 ha), Round Wood (2.48 ha), and a Corsican Pine plantation (3.66 ha). Construction could therefore result in direct habitat loss, in addition to temporary localised effects on protected species within the vicinity (reptiles, dormice, and bats); however, substantial efforts are being made by Portsmouth Water to develop appropriate mitigation measures in partnership with Natural England and guided by an agreed set of mitigation principles. Given these cited mitigative measures and assuming that they are effectively implemented, and the licensing requirement for protected species, the effects on biodiversity (SEA Objective 1) are assessed as a minor negative'. In consequence the effects are assessed taking into account mitigation to provide a rounded assessment. No change is proposed.

Consultation Question	Section	Consultee Response	Response/Action
		ongoing work for which the company is seeking formal advice from Natural England, we will continue to work positively with them on this scheme. The dWRMP should recognise that there is also a loss of biodiversity from a winter storage reservoir at Havant Thicket and that measures will be required in conjunction with any authorisations for the reservoir to adequate meet legislative and national planning policy considerations. We also consider the levels of significance given to the biodiversity impacts of the proposed reservoir in the SEA are too low and should be reviewed.	
Q3. Do you agree with the proposed arrangements for monitoring the significant effects of the implementation of the WRMP? If not, what measures do you propose?		None received	N/A

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Table B.3 Hampshire and Isle of Wight Wildlife Trust (on the Environmental Report accompanying the Draft WRMP)

Consultation Question	Section	Consultee Response	Response/Action
Q1. Does the assessment set out in this SEA Environmental Report describe the likely significant environmental effects of the feasible and preferred options?		None received	N/A
Q2. Do you think that there are other likely significant environmental effects that should have been identified that would have affected the choice of preferred option included in the Draft Water Resources Management Plan?		On the supply side, the company propose only Deployable Output improvements in AMP7, which make best use of existing water resources by modifying infrastructure to improve operability. Of the schemes discussed, we note that most have minor negative and more substantial positive effects under the various criteria considered within the Strategic Environmental Assessment (SEA), the exception being 'Source H' for which the abstraction itself may be contributing to the risk of deterioration under WFD on the River Meon. This does not appear to be reflected in the SEA, and so raises the question of whether the underlying impacts of any schemes (rather than just the changes proposed to them) have been adequately considered in the Environmental Assessment process. It is important that the SEA is used not only to screen out any options that would be entirely environmentally unacceptable, but also to identify the opportunities for mitigating any of the negative impacts identified for the options that are to be taken forward.	Comment noted. In the case of the WFD effects on source H, the SEA (in the assessment of option R023a), notes that 'the EA has expressed some reservations that this option could have a negative effect on the lower reaches of the River Meon during periods of low flow in combination with existing abstractions for spray irrigation… In the 2016 WFD classification (Cycle 2) the River Meon was classified as at moderate ecological status and good chemical status. The magnitude of the potential impact on the River Meon remains uncertain until further investigation is conducted. On this basis, whilst within licensed amount, the operation of this option is assessed as having an uncertain effect on water quality and quantity (SEA Objective 3)'. Portsmouth Water will determine what further actions are required, as part of the regulatory environmental programme; WINEP.
Q3. Do you agree with the proposed arrangements for monitoring the significant effects of the implementation of the WRMP? If not, what measures do you propose?		None received	N/A

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Table B.4 Sussex Wildlife Trust (on the Environmental Report accompanying the Draft WRMP)

Consultation Question	Section	Consultee Response	Response/Action
Q1. Does the assessment set out in this SEA Environmental Report describe the likely significant environmental effects of the feasible and preferred options?		The final option contained within the dWRMP is that of a Drought Permit (DP) that would allow additional abstraction from 'Source S' during times of severe drought. The scheme has been assessed as having a potentially negative effect on biodiversity and water quantity & quality in the SEA due to the likely exacerbation of the effects of drought on the local water system. SWT encourages Portsmouth Water to be proactive in mitigating this risk by implementing habitat enhancements in advance of a DP being applied for.	Comment noted. Portsmouth water is developing an environmental monitoring plan in conjunction with Southern Water, to further understand the environmental impacts.
Q2. Do you think that there are other likely significant environmental effects that should have been identified that would have affected the choice of preferred option included in the Draft Water Resources Management Plan?		None received	N/A
Q3. Do you agree with the proposed arrangements for monitoring the significant effects of the implementation of the WRMP? If not, what measures do you propose?		None received	N/A