

Hampshire Water Transfer and Water Recycling Project

Environmental Statement – Chapter 1 Introduction

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The Southern Water logo consists of three stylized, wavy blue lines of varying lengths, positioned to the right of the text 'Southern Water'.

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1 Introduction

1.1 Purpose of this Report

- 1.1.1 This Environmental Statement (ES) has been prepared on behalf of Southern Water Services Limited. The ES sets out the findings of the Environmental Impact Assessment (EIA) process for the Hampshire Water Transfer and Water Recycling Project (hereafter referred to as the 'Proposed Development'). The Proposed Development is a scheme comprising a combination of both water transfer and water recycling technology that would play a major role in making up the shortfall in water supply across the Hampshire supply area, especially in a drought¹.
- 1.1.2 Regulation 14(1) of the Infrastructure Planning (Environmental Impact Assessment) Regulation 2017 (the 'EIA Regulations') [1] states that "*An application for an order granting development consent for EIA development must be accompanied by an environmental statement.*" As such, this ES accompanies the Development Consent Order (DCO) application submitted to the Planning Inspectorate acting under delegation on behalf of the relevant Secretary of State (SoS).
- 1.1.3 This ES has been prepared following an iterative EIA process that has taken into account and been influenced by:
1. Findings of the EIA Scoping Report submitted on 21 July 2023 and taking account of the EIA Scoping Opinion adopted by the SoS on 31 August 2023.
 2. The preliminary assessment findings identifying where likely significant effects may arise as a result of the Proposed Development, set out in the Preliminary Environmental Information (PEI) Report in accordance with Regulation 12 of the EIA Regulations, shared as part of the statutory consultation under Sections 42, 47 and 48 of the Planning Act 2008 [2] (PA 2008) (hereafter referred to as the 'Summer 2024 Consultation').
 3. Ongoing assessment work and development of mitigation measures.
 4. Engagement with statutory consultees and other stakeholders during the EIA process.
 5. Consultation responses on the Proposed Development from the Summer 2024 Consultation.
 6. Consultation responses on the Proposed Development from the statutory consultation (hereafter referred to as the 'Spring 2025 Consultation').
 7. Consultation responses on the Proposed Development from the statutory targeted consultation (hereafter referred to as the 'Autumn 2025 Consultation').
 8. Consultation responses on the Proposed Development from the statutory targeted consultation (hereafter referred to as the 'Spring 2026 Consultation').
- 1.1.4 The ES describes the Proposed Development and alternatives considered, the approach to the EIA, and sets out the assessment findings and likely significant

¹ Droughts are naturally occurring events and are typically characterised by a prolonged period of abnormally low rainfall, leading to a shortage of water.

effects of the Proposed Development. It also details the measures proposed to avoid, reduce and/or mitigate such effects. This allows the Planning Inspectorate (acting under delegation on behalf of the relevant SoS) to reach a reasoned conclusion on the likely significant effects of the Proposed Development on the environment, considering the current information and methods of assessment.

- 1.1.5 The findings of the ES are summarised within the Non-Technical Summary (NTS) (Document reference 6.1, DCO Volume 6), provided as part of this ES.

1.2 The Applicant

- 1.2.1 The Proposed Development is being progressed by Southern Water Services Limited ('the Applicant'). The Applicant is responsible for supplying water and providing wastewater² services to over four million customers in the South East of England, operating across Hampshire, Kent, the Isle of Wight and East and West Sussex.
- 1.2.2 The Applicant is governed under the Water Industry Act 1991 [3]. In accordance with Section 37A of the Water Industry Act 1991, the Applicant is required to meet statutory duties as a water undertaker to prepare, publish and maintain a Water Resources Management Plan (WRMP).
- 1.2.3 A WRMP sets out how each water undertaker will manage and develop water resources to meet their supply obligation for at least the next 25 years. The Applicant produced a WRMP (2020 – 2070) in 2019 (WRMP19) [4], which outlined proposed long-term solutions to protect the unique chalk rivers in Hampshire, the River Test and River Itchen, and make up future water shortfalls. This included a long-term and large-scale water resource solution, or Strategic Resource Option (SRO).
- 1.2.4 The Applicant published its Draft WRMP24 on 14 November 2022 for consultation [5]. Consultation on this draft was undertaken between 14 November 2022 and 20 February 2023 and the Applicant developed a Statement of Response which addressed the issues raised in the consultation [6]. A revised Draft WRMP24 was published by the Applicant on 11 September 2024 [7], and consultation of this revised draft was undertaken between 11 September 2024 and 4 December 2024. The Applicant developed a Statement of Response to the revised Draft WRMP24 and has submitted a Final Draft WRMP24 [8] seeking permission from the Department for the Environment, Food and Rural Affairs (Defra) to publish the final WRMP24. The Draft WRMP24, revised Draft WRMP24 and Final Draft WRMP24 reaffirmed the need for a SRO to meet the WRMP19 and continuing water resource deficit. The preferred SRO to meet this need is the Proposed Development, for the purposes of the DCO application, which would play a major role in making up the shortfall in water supply across the Hampshire supply area.

1.3 Overview of the Proposed Development

- 1.3.1 The Proposed Development is in southern Hampshire, with parts located in and extending from Havant to Otterbourne. The site location and Proposed

² A combination of water from kitchens, bathrooms, sinks and taps (in domestic and non-domestic properties) and rainwater from roads and roofs, that is transported to, and cleaned at, a wastewater treatment works.

Development application boundary is shown on ES Figure 1.1 Location of the Proposed Development and Order Limits, Volume III (Document reference 6.3, DCO Volume 6). The need for the Proposed Development is set out within the Case for the Project, (Document reference 5.6, DCO Volume 5).

- 1.3.2 The Proposed Development would use advanced treatment techniques to turn treated wastewater³ from Budds Farm Wastewater Treatment Works (WTW) into purified recycled water⁴ at a Water Recycling Plant (WRP). The WRP site would be located near Budds Farm WTW, at a site south of Havant. The recycled water would then be transferred via two pipelines to Havant Thicket Reservoir. This would supplement the source water⁵ proposed to be stored in the reservoir by Portsmouth Water. Two pipelines would connect the WRP site to Bedhampton Springs, transferring recycled water to Bedhampton Springs and source water back to the WRP site, before onwards transfer to the Otterbourne Water Supply Works (WSW), approximately 35km to the north-west. The transfer of recycled water and source water between Bedhampton Springs and Havant Thicket Reservoir would utilise Portsmouth Water's pipelines between these sites which are subject to a separate planning consent. At Otterbourne WSW, source water would be treated to strict drinking water standards ready for supply to homes and businesses. Reject water⁶ created during the water recycling process at the WRP site would be transferred via a pipeline to Budds Farm WTW before utilising existing infrastructure at Budds Farm WTW to enable release via the existing Eastney Transfer Tunnel (TT), Eastney Pumping Station (PS) and Eastney Long Sea Outfall (LSO) operated by the Applicant. A detailed description of the Proposed Development is contained in ES Chapter 3 Description of the Proposed Development, Volume I (Document reference 6.1, DCO Volume 6).
- 1.3.3 The Proposed Development comprises a number of principal components which are outlined in this section.

Water Recycling Plant site

- 1.3.4 The WRP site would be located approximately 300m north-west of Budds Farm WTW, to the north of Harts Farm Way, south of the A27 and west of the Hermitage Stream. It would consist of a main process building where the water recycling process would be undertaken, along with kiosks for control equipment, administrative buildings and parking facilities. A guide showing the advance treatment techniques used in the water recycling process at the WRP site has been provided in Graphic 3-15 in ES Chapter 3 Description of the Proposed Development, Volume I (Document reference 6.1, DCO Volume 6).
- 1.3.5 During maximum operation, especially during drought conditions, the WRP site would receive approximately 82 megalitres per day (MI/d) of treated wastewater

³ Wastewater (see footnote 2) that has been treated to strict regulatory standards and is typically released to rivers or the sea.

⁴ Purified water that has been produced by taking treated wastewater (see above) and removing remaining impurities using advanced treatment techniques.

⁵ Water that is used as a source for drinking water. This water is treated to strict regulatory standards at the Otterbourne WSW before being supplied to customers.

⁶ During the water recycling process, reject water is produced. Reject water is water containing impurities removed from the treated wastewater.

from Budds Farm WTW to produce a total maximum output of approximately 60MI/d of recycled water. At maximum operation the WRP site would produce approximately 22MI/d of reject water.

- 1.3.6 A minimum flow operation is required to ensure that the infrastructure is in regular working use for when the maximum transfer is required, especially during drought conditions. At minimum flow operation, approximately 10MI/d of recycled water would be produced, generated from approximately 14MI/d of treated wastewater from Budds Farm WTW. During minimum operation, approximately 4MI/d of reject water from the WRP site would be released via the existing infrastructure operated by the Applicant, consisting of Eastney TT, Eastney PS and Eastney LSO.
- 1.3.7 Three pumping stations would be located at the WRP site:
1. One pumping station would pump recycled water from the WRP to Bedhampton Springs.
 2. A second pumping station would pump process waste (generated by the WRP process but separate to reject water which is released via the Eastney LSO) and welfare facility waste from the WRP site to the existing sewer network for return to Budds Farm WTW.
 3. A third pumping station would pump source water transferred from Bedhampton Springs onwards to Otterbourne WSW.
- 1.3.8 No pumping station is required to transfer reject water from the WRP site to Budds Farm WTW for release via the Eastney LSO, as these flows would be transferred using a gravity pipeline due to the topography of the two sites.

Pipelines between Budds Farm Wastewater Treatment Works and the Water Recycling Plant site

- 1.3.9 The Pipelines between Budds Farm WTW and the WRP site would comprise two pipelines (each approximately 700m in length) that would be installed between Budds Farm WTW and the WRP site on the same route. These Pipelines would be tunnelled, using trenchless construction methods, under the Hermitage Stream and Harts Farm Way. The Pipelines would be constructed to accommodate a maximum transfer capacity of approximately 82MI/d to and from the WRP site and Budds Farm WTW.
- 1.3.10 Treated wastewater would be pumped to the WRP site by a new pumping station at Budds Farm WTW. The pumping station would include an above-ground kiosk, all other elements of the pumping station would be located below-ground. A permanent access road would connect to the existing internal access roads within Budds Farm WTW.
- 1.3.11 Reject water would be transferred to the Eastney TT using gravity. Works at Budds Farm WTW would include new connections to transfer flows to and from the WRP site.

Pipelines between the Water Recycling Plant site and Bedhampton Springs

- 1.3.12 The Pipelines between the WRP site and Bedhampton Springs would transfer recycled water from the WRP site to Bedhampton Springs, and source water from Bedhampton Springs back to the WRP (for transfer to Otterbourne WSW).

- 1.3.13 The transfer between Bedhampton Springs and Havant Thicket Reservoir would utilise Portsmouth Water’s pipelines (which are subject to a separate planning consent received in May 2025). Bedhampton Springs is an existing operational Portsmouth Water site which will provide source water to Havant Thicket Reservoir. At maximum operation, the Pipelines would enable the transfer of approximately 60MI/d of recycled water from the WRP to Bedhampton Springs and approximately 90MI/d of source water from Bedhampton Springs to the WRP site, for onward transfer to Otterbourne WSW.
- 1.3.14 The Pipelines between the WRP site and Bedhampton Springs, would each be approximately 750m in length, passing underneath the A27 and Mill Lane. A section of the Pipelines east of Mill Lane would be above-ground where they are within the boundary of the Bedhampton Springs site. This is due to the proximity of the Pipelines to groundwater abstraction at Bedhampton Springs used by Portsmouth Water and its location within a Source Protection Zone 1.
- 1.3.15 Connection infrastructure would be developed at Bedhampton Springs to connect into Portsmouth Water’s pipelines between Bedhampton Springs and Havant Thicket Reservoir.

Pipeline between the Water Recycling Plant site and Otterbourne Water Supply Works

- 1.3.16 An underground pipeline, approximately 35km in length, would transfer approximately 90MI/d of source water at maximum flow operation, in extreme drought conditions from 2040 onwards, from the WRP site to Otterbourne WSW. During normal conditions, the Pipeline between the WRP site and Otterbourne WSW is expected to increase from approximately 23MI/d in 2034/2035 to almost 50MI/d by 2050, with flows fluctuating thereafter between 40MI/d and 50MI/d up to 2075. Note that these are annual average figures and it is likely that the transfer will operate at capacity every year, on some days in the year, i.e. the capacity of 90MI/d is not just required in an extreme drought events. Above Ground Plant (AGP) would support the transfer of water from the WRP site to Otterbourne WSW.
- 1.3.17 Due to the length of the Pipeline, it has been divided into sections (Sections D to M), informed by local planning authority boundaries and roads.

Above Ground Plant

- 1.3.18 As a result of the length of the Pipeline between the WRP site and Otterbourne WSW, AGP would be required to support the transfer of source water to overcome the topography of the route.
- 1.3.19 The Proposed Development would potentially⁷ include the following AGP:
1. Intermediate Pumping Stations (IPS) along the Pipeline between the WRP site and Otterbourne WSW to re-pressurise the pipe where pressure falls to the point that the Pipeline can no longer convey the required flow via gravity.
 2. Break Pressure Tanks (BPT) along the Pipeline between the WRP site and Otterbourne WSW to be located at high points of the route. From BPTs, source

⁷ Required configuration of AGP will be confirmed post-consent. All potential AGP are therefore included and assessed as part of the ES to provide a worst case AGP configuration for the Proposed Development.

water would be gravity fed onwards from the tank (to reduce the amount of energy required to transfer water).

- 1.3.20 Two IPS, one BPT and one combined IPS and BPT would be required along the Pipeline to support the transfer of source water from the WRP site to Otterbourne WSW.

Invasive Non-Native Species Treatment at Otterbourne Water Supply Works

- 1.3.21 Works are proposed at Otterbourne WSW as part of the Proposed Development to ensure the addition of source water transferred from Havant Thicket Reservoir would not introduce pathways for the spread of Invasive Non-Native Species (INNS).
- 1.3.22 The INNS Treatment would comprise repurposing an existing tank and development of a treatment plant. The treatment plant would either be housed within an existing redundant building, or a new building would be developed.

Use of Havant Thicket Reservoir for the storage of recycled water and use of pipelines between Bedhampton Springs and Havant Thicket Reservoir

- 1.3.23 The Proposed Development would use the Havant Thicket Reservoir for storage of recycled water prior to transfer to Otterbourne WSW. Recycled water from the WRP would be transferred to, and combined with, source water contained within the Havant Thicket Reservoir. Havant Thicket Reservoir is a development proposed by Portsmouth Water that received planning permission in October 2021 (Havant Borough Council (HBC) planning application ref. PP/20/00990 and East Hampshire District Council (EHDC) planning application ref. 51680/001), and has subsequently been amended by a section 73 application (HBC APP/24/00312 and EHDC 51680/0012).
- 1.3.24 The Proposed Development would also connect to and use pipelines from Bedhampton Springs to Havant Thicket Reservoir, a Portsmouth Water development that received planning permission in October 2021, with the revised application approved in May 2025 (HBC planning application ref. APP/24/00405). The pipelines are within the Order Limits.

Release from Eastney Long Sea Outfall

- 1.3.25 The reject water from the WRP site would be returned to Budds Farm WTW using the Pipelines between Budds Farm WTW and the WRP site. The reject water would then be transferred and released using the existing infrastructure, operated by the Applicant, Eastney TT and Eastney PS to the Eastney LSO.
- 1.3.26 Works on the Eastney TT would include the connection at Budds Farm WTW for the reject water from the WRP.

Other works

- 1.3.27 The construction and operation of the principal components of the Proposed Development would be supported by other works, which are expected to include, but not limited to:

1. Temporary works to support construction (i.e. temporary construction compounds and water storage lagoons and temporary access to construction areas).
 2. Permanent works to support operation and maintenance including permanent access to the AGP.
 3. Isolation, washout and air valves along the length of the pipelines.
 4. Highway works and Public Rights of Way diversions and enhancements, where required.
 5. Landscaping and environmental mitigation, enhancement, and compensation measures.
- 1.3.28 The Proposed Development will require demolition, disassembly and/or temporary relocation of a number of small structures.

1.4 Need for Environmental Impact Assessment

- 1.4.1 EIA is a process, within UK law, which requires the preparation, assessment and consideration of information relating to the likely significant effects of a development on the environment. The SoS uses the ES and environmental information to ensure adequate knowledge of the likely significant effects of a development and to make an informed decision whether to grant consent for the development.
- 1.4.2 In May 2022, the SoS made a Direction under Section 35(1) of the PA 2008 confirming the Proposed Development as a project of national significance for which an application for DCO is required⁸.
- 1.4.3 The EIA process which applies to the Proposed Development sits under EIA Regulations.
- 1.4.4 An EIA is not needed for all developments. Developments that fall under Schedule 1 of the EIA Regulations must have an EIA. Developments that fall under Schedule 2 of the EIA Regulations are those which have been identified as having the potential to cause likely significant effects on the environment due to their nature, size or location and, for which, an EIA may be required.
- 1.4.5 The Proposed Development falls within the threshold set out in Schedule 2 paragraph 10(l) of the EIA Regulations, relating to the “*installations of long-distance aqueducts*”. The Proposed Development would include a pipeline constructed to carry water from a source to a treatment and distribution point at distance. In engineering terms, the Proposed Development therefore falls within that definition through the transfer of source water from the Havant Thicket Reservoir to Otterbourne WSW.
- 1.4.6 The Applicant acknowledges that the Proposed Development falls within Schedule 2 of the EIA Regulations, as the Proposed Development has the potential to have likely significant effects on the environment due to its scale and complexity. Therefore, it was considered that the Proposed Development would be an EIA development. The SoS was informed in writing on 21 July 2023 that the Applicant

⁸ Following a variation request made by the Applicant, the SoS varied the Direction under of the relevant provisions of the PA 2008 in November 2024

proposed to provide an ES in respect of the Proposed Development and make an application for DCO, under Regulation 8(1)(b) of the EIA Regulations.

- 1.4.7 Additional relevant environmental legislation applies to the Proposed Development, which requires additional assessments. The additional assessments are described below, along with the relevant environmental legislation that require them.

Habitat Regulation Assessment

- 1.4.8 A Habitats Regulations Assessment (HRA) has been undertaken for all protected sites within the National Site Network (NSN) and Ramsar Sites (within 5km of the Proposed Development or those with hydrological connections to the Proposed Development, and all Special Areas of Conservation (SAC) designated specifically for bats within 15km of the Proposed Development), in accordance with the Conservation of Habitats and Species Regulations 2017 as amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. The NSN includes existing and potential SAC and Special Protection Areas (SPA). Details of the protected sites considered in the assessment are provided in ES Chapter 8 Terrestrial and freshwater biodiversity, Volume I (Document reference 6.1, DCO Volume 6), and ES Chapter 9 Marine biodiversity, Volume I (Document reference 6.1, DCO Volume 6).
- 1.4.9 The HRA follows a multi-stage screening and assessment process outlined in Planning Inspectorate (2024) Nationally Significant Infrastructure Projects: Advice on Habitats Regulations Assessments [9]. A HRA - Stage 1 Screening, combined with a Marine Conservation Zone (MCZ) Assessment Screening (presented in Habitats Regulations Assessment and Marine Conservation Zone Assessment Stage 1 – Screening and Assessment Screening, Appendix A of Information for Habitats Regulations Assessment – Stage 2 Appropriate Assessment and Marine Conservation Zone – Stage 1 Assessment (Document reference 5.2, DCO Volume 5), was produced and issued to key stakeholders in April and June 2024. The HRA - Stage 1 Screening considered whether the Proposed Development would result in likely significant effects on NSN and Ramsar Sites, in combination with other developments or alone, and which designated sites should be brought forward to the HRA - Stage 2 Appropriate Assessment. This concluded that likely significant effects could not be screened out for habitat sites, Ramsar Sites and interest features of a NSN site. Therefore, a Habitats Regulations Assessment – Stage 2 Appropriate Assessment and Marine Conservation Zone – Stage 1 Assessment (Document reference 5.2, DCO Volume 5) has been produced separately to the ES and is submitted as part of the DCO application.

Marine Conservation Zone Assessment

- 1.4.10 A MCZ Assessment Screening has been undertaken, in accordance with the Marine and Coastal Access Act 2009 [10]. The MCZ assessment considers the extent to which the Proposed Development could impact on the protected features of a MCZ or any ecological or geomorphological process on which the conservation of any protected feature of a MCZ is (wholly or in part) dependent, within 5km of the Proposed Development. The assessment follows guidance from the Marine Management Organisation [11, 12, 13]. The MCZ assessment is split into a three-

stage process consisting of; Assessment Screening, MCZ - Stage 1 Assessment, and the MCZ - Stage 2 Assessment.

- 1.4.11 A MCZ Assessment Screening considers at a high level the proximity and potential connectivity of the Proposed Development to any nearby MCZs. If a pathway for potential impacts is identified, or the Proposed Development is found to be in close proximity to a MCZ, the MCZ assessment progresses to a Stage 1 MCZ Assessment. The MCZ - Stage 1 Assessment identifies if adverse effects are likely to arise and establishes whether mitigation measures would be required to meet the conservation objectives of the MCZ.
- 1.4.12 A MCZ Assessment Screening, combined with a HRA - Stage 1 Screening (presented in Habitats Regulations Assessment and Marine Conservation Zone Assessment Stage 1 – Screening and Assessment Screening, Appendix A of Information for Habitats Regulations Assessment – Stage 2 Appropriate Assessment and Marine Conservation Zone – Stage 1 Assessment (Document reference 5.2, DCO Volume 5), was produced for the Proposed Development and issued to key stakeholders in April and June 2024. This identified that likely significant effects cannot be screened out for MCZ and therefore a MCZ - Stage 1 Assessment was required. A MCZ - Stage 2 Assessment is not required. The MCZ - Stage 1 Assessment has been produced separately to the ES, and is combined with the Habitats Regulations Assessment – Stage 2 Appropriate Assessment and Marine Conservation Zone – Stage 1 Assessment (Document reference 5.2, DCO Volume 5), and is submitted as part of the DCO application.

Water Environment Regulations compliance assessment

- 1.4.13 The Water Environment Regulations (WER) compliance assessment evaluates whether the Proposed Development is compliant with the requirements of The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 [14]. This follows the process recommended in Planning Inspectorate (2024) Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive [15] and other relevant guidance and case law in the absence of published methodology across all types of water bodies. The assessment follows a three-stage approach; Stage 1: Screening, Stage 2: Scoping and Stage 3: Impact Assessment. The WER compliance assessment considers the extent to which the Proposed Development could result in deterioration of water body status, or prevent status targets, as established in the South East River Basin Management Plan [16], being achieved in the future.
- 1.4.14 A preliminary WER compliance assessment, consisting of Stage 1: Screening and Stage 2: Scoping, was undertaken and reported within PEI Report Appendix 19.2 Preliminary Water Environment Regulations compliance assessment, Volume II [17]. A full WER compliance assessment, consisting of an updated Stage 1 Screening and Stage 2 Scoping assessment as well as a complete Stage 3 Impact Assessment, has since been undertaken and is provided in ES Appendix 19.2 Water Environment Regulations compliance assessment, Volume II (Document reference 6.2, DCO Volume 6).

Flood Risk Assessment

- 1.4.15 A Preliminary Flood Risk Assessment (FRA) was provided as part of the Summer 2024 Consultation documentation (PEI Report Appendix 19.1 Preliminary Flood Risk Assessment, Volume II [18]). The Preliminary FRA assessed flood risk across the Proposed Development and has been updated to reflect the latest design and environmental changes. The FRA provides a Proposed Development wide assessment and forms part of ES Appendix 19.1 Flood Risk Assessment, Volume II (Document reference 6.2, DCO Volume 6).
- 1.4.16 Six separate site-specific FRAs have been prepared, one for each of the AGP sites (BPT/IPS-E, IPS-F, IPS-G and BPT-K); as well as for the WRP site and Budds Farm WTW. These are also presented in ES Appendix 19.1 Flood Risk Assessment, Volume II (Document reference 6.2, DCO Volume 6). All seven FRAs have been undertaken in accordance with the National Policy Statement for water resources infrastructure (NPSWRI) [19], the National Planning Policy Framework [20], Planning Practice Guidance and associated Flood Risk and Coastal Change guidance [21].
- 1.4.17 The purpose of these assessments is to demonstrate that:
1. Flood risk has been considered at all stages of the planning process to ensure the Proposed Development components are appropriate for their location.
 2. The Proposed Development would remain safe and operational throughout its intended design life.
 3. The Proposed Development would not increase flood risk elsewhere.
- 1.4.18 In addition, the site-specific FRAs for the AGP sites and WRP site include surface water management plans and outline the use of Sustainable Drainage Systems, in accordance with local planning policy, to ensure that these components of the Proposed Development do not result in increased rates or volumes of surface water runoff leaving the sites while also mimicking natural processes.

Biodiversity Net Gain

- 1.4.19 The statutory regime for Biodiversity Net Gain (BNG) for Nationally Significant Infrastructure Projects (NSIPs) under the Environment Act 2021 [22] is not expected to be implemented until November 2026 for DCO applications submitted after this date. As such, it is not expected to apply to the Proposed Development. Defra consulted on BNG for NSIPs in May 2025 and the Applicant has had regard to the proposed draft Biodiversity Gain Statement [23]. The Applicant has committed to delivering at least 10% BNG for the Proposed Development, and has prepared a Biodiversity Gain Plan (Document reference 7.11, DCO Volume 7), submitted with the DCO application, setting out its approach to the delivery of BNG.
- 1.4.20 The Biodiversity Gain Plan (Document reference 7.11, DCO Volume 7) specifies how the biodiversity values associated with the Proposed Development have been calculated and how the Statutory Biodiversity Metric (SBM) and associated User Guide, specific for Town and Country Planning Act (TCPA) developments, have been applied. Given the significant difference in nature and scale between TCPA developments and NSIPs consented under the PA 2008, it is not considered appropriate in all cases to follow the SBM User Guide applicable to the TCPA.

Where the proposed approach deviates from the TCPA requirements and the SBM User Guide, this has been identified within the document, with a clear explanation and justification provided.

Environmental Net Gain

- 1.4.21 An Environmental Net Gain (ENG) assessment has been undertaken to ensure that, in addition to delivering BNG, the Proposed Development also delivers wider environmental gains relevant to the local area, and to national policy priorities, in accordance with the NPSWRI [19]. The ENG assessment is based on the outputs of the BNG assessment, i.e. the areas of habitats lost and gained through the Proposed Development and proposed onsite and offsite mitigation activities. It has quantified, and monetised where possible, changes to a wide range of ecosystem services including carbon sequestration, water purification, water regulation, natural hazard regulation and recreation, following the Water Resources Planning Guideline [24]. ENG is not within the scope of the EIA. The ENG Statement (Document reference 7.12, DCO Volume 7) is included in the DCO application.

1.5 The Environmental Impact Assessment team

- 1.5.1 Regulation 14(4) of the EIA Regulations requires that the ES is prepared by 'competent experts' and that *"the environmental statement must be accompanied by a statement from the applicant outlining the relevant expertise or qualifications of such experts"*.
- 1.5.2 The Applicant has engaged Ove Arup and Partners Limited (Arup) and Haskoning to lead the EIA and prepare the ES. Both Arup and Haskoning hold the Institute of Sustainability and Environmental Professional's (formerly Institute of Environmental Management and Assessment) EIA Quality Mark.
- 1.5.3 The development of the ES has therefore been led by Arup and Haskoning, who have been supported by a team of competent experts, from a number of organisations including, but not limited to, Arup, Haskoning and Mott MacDonald. The team comprises technical specialists who have extensive experience in the field of EIA. The details (including their experience and qualifications) of these competent experts are presented in ES Appendix 5.4 Statement of competence, Volume II (Document reference 6.2, DCO Volume 6). The individual experts demonstrate their competence through academic qualifications, membership of relevant professional institutions and practical experience in undertaking EIAs.

1.6 Structure of the Environmental Statement

- 1.6.1 The ES is provided in the following documents:
1. Volume I (this volume) Main Report (Document reference 6.1, DCO Volume 6)
 2. Volume II Appendices (Document reference 6.2, DCO Volume 6)
 3. Volume III Figures (Document reference 6.3, DCO Volume 6)
 4. Non-Technical Summary (Document reference 6.1, DCO Volume 6)
- 1.6.2 This report (Volume I) is structured as set out within Table 1-1.

Table 1-1 Structure of the Environmental Statement

Chapter	Content
1. Introduction	Sets out the intent of the ES and why an ES is required, introduces the Applicant, provides a high-level overview of the Proposed Development, the need for EIA and the structure of the ES.
2. Planning legislation and policy	Summarises the principal national, regional, local and marine legislative and policy context for the Proposed Development.
3. Description of the Proposed Development	Provides an overview of the Proposed Development including a description of its principal components and an outline of construction, operation and maintenance activities. It also includes a description of the primary mitigation measures embedded into the Proposed Development.
4. Consideration of alternatives	Provides a description of the reasonable alternatives relevant to the Proposed Development and its specific characteristics, along with the key reasons for selecting the chosen design option, considering the environmental effects to inform the decision-making process.
5. EIA approach and methodology	Sets out the purpose of the EIA process, the general approach and methodology for EIA and provides definitions for some of the key terms used within the EIA process. This section also describes the scoping process, confirming the scope of the EIA (i.e. topics scoped in and out), as well as consultation and technical engagement undertaken to inform the EIA.
6 to 19. Topic chapters	Sets out the assessment of the likely significant effects of the Proposed Development associated with the 14 topics scoped into the EIA.
20. Cumulative and in-combination effects	Provides the assessment of the cumulative effects and in-combination effects that may be experienced by common receptors from the Proposed Development.
21. Summary of likely significant residual effects	Summarises the likely significant residual effects of the Proposed Development that have been identified through the assessment of likely significant effects.

References

- [1] UK Parliament, “The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017,” 2023. [Online]. Available: <https://www.legislation.gov.uk/uksi/2017/572/contents>. [Accessed September 2024].
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The logo graphic for Southern Water, featuring three stylized, white, wavy lines that resemble water waves, positioned to the right of the text.