

Hampshire Water Transfer and Water Recycling Project

Consultation Report

Appendix F – Statutory Summer 2024 Consultation 3 of 7 Documents

VOLUME NUMBER: 5

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May 2026

Version 0



from
**Southern
Water** 

The Southern Water logo consists of the words 'Southern' and 'Water' stacked vertically in a blue, sans-serif font. To the right of the text is a graphic of three wavy blue lines representing water.

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F.10 Outline Construction Environmental Management Plan

Hampshire Water Transfer & Water Recycling Project Outline Construction Environmental Management Plan

VOLUME NUMBER: -

PLANNING INSPECTORATE NUMBER: WA010002

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from
**Southern
Water** 

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1 Introduction

1.1 Purpose of this document

- 1.1.1 This preliminary Outline Construction Environmental Management Plan (CEMP) has been prepared by Southern Water ('the Applicant').
- 1.1.2 The preliminary Outline CEMP has been prepared to support the Preliminary Environmental Information (PEI) Report which sets out the preliminary findings of the Environmental Impact Assessment (EIA) process for the proposed Hampshire Water Transfer and Water Recycling Project (the 'Proposed Development').
- 1.1.3 This preliminary Outline CEMP is based on draft Order Limits, as shown in PEI Report Figure 1.1 Site location and Proposed Development application boundary in PEI Report Volume III. The Proposed Development design is currently under development and environmental information is still being assembled. Following the PEI Report and the Summer 2024 Consultation on the Proposed Development, the feedback from the consultation will be collated and taken into consideration with regards to further assessment and design work undertaken in relation to the Proposed Development. The Outline CEMP will have regard to ongoing environmental surveys and assessments as well as consultation feedback.
- 1.1.4 The preliminary predicted environmental effects of the Proposed Development are identified in the PEI Report, which reports on the likely significant effects of the Proposed Development following the implementation of primary (embedded) and tertiary (inexorable) mitigation embedded to date. The PEI Report then reports on the preliminary likely significant effects of the Proposed Development following the implementation of any secondary (foreseeable) mitigation where known, which are called 'residual effects'. All identified topic tertiary measures to be adopted during construction to avoid and reduce environmental effects are listed in the Register of Environmental Actions and Commitments (REAC) contained in section 5 and Table 5-2 of this document.
- 1.1.5 The preliminary Outline CEMP indicates the measures that the Applicant proposes to include in the Outline CEMP to be submitted with the Development Consent Order (DCO) application, based on the outcomes of the PEI Report. It sets out the approach to environmental management throughout the construction phase of the Proposed Development. Operational impacts are outlined in the relevant technical assessment chapters within the PEI Report as well as their specific design measures including primary and tertiary mitigation. At this stage, the document sets out measures, commitments, and actions to manage environmental effects during construction of the Proposed Development as identified through the PEI assessment process.
- 1.1.6 This preliminary Outline CEMP has been produced at an appropriate level of detail for the preliminary design stage. The Outline CEMP will be developed and refined prior to the DCO application as the assessment is progressed and undertaken and the design and construction principles and approaches continue to develop. The Outline CEMP will be submitted as part of the DCO application and will be secured through the DCO. The detailed CEMP will set out plans and method statements in accordance with the Outline CEMP for certain construction activities.

1.2 Description of the Proposed Development

1.2.1 The Proposed Development comprises the construction, operation, maintenance and renewal of:

- Proposed Water Recycling Plant (WRP) in the vicinity of Budds Farm Wastewater Treatment Works (WTW) with a total peak output (i.e. during severe drought conditions) of approximately 60 million litres per day (ML/d) of recycled water. During sweetening flow (i.e. non-peak/drought) operation, the output of the proposed WRP is expected to be approximately 20ML/d depending on water availability at Bedhampton Springs (an existing operational Portsmouth Water site which provides water to Havant Thicket Reservoir) to maintain water levels in Havant Thicket Reservoir. The proposed WRP may also increase output from the sweetening flow during dry and drought conditions. There would be three pumping stations at the site including the proposed High Lift Pumping Station (HLPS).
- Proposed Underground Pipelines between Budds Farm WTW and the proposed WRP to accommodate up to approximately 80ML/d peak transfer volumes in each direction.
- Proposed Pipelines to transfer at peak operation approximately 60ML/d of recycled water from the proposed WRP to Havant Thicket Reservoir, and at peak operation approximately 90ML/d of source water from Havant Thicket Reservoir to the proposed HLPS. The proposed Pipelines would either consist of two separate sections (one from the proposed WRP to Bedhampton Springs, and one from Bedhampton Springs to Havant Thicket Reservoir) or a single continuous section between the proposed WRP and Havant Thicket Reservoir. Bedhampton Springs is an existing operational Portsmouth Water site which will provide water to Havant Thicket Reservoir.
- Proposed Underground Pipeline to transfer at peak operation approximately 90ML/d of water from Havant Thicket Reservoir to Otterbourne WSW via the proposed HLPS. During sweetening flow operation, the pipeline would transfer at least 20ML/d of water from Havant Thicket Reservoir to Otterbourne WSW. The section between Havant Thicket Reservoir and the proposed HLPS is as described in the previous bulletpoint.
- Proposed Above Ground Plant comprising proposed Intermediate Pumping Stations and proposed Break Pressure Tanks located along the proposed Underground Pipeline between Havant Thicket Reservoir and Otterbourne WSW.

1.2.2 The Proposed Development would also comprise the use of, or change of use of, the following existing infrastructure:

- Use of the Havant Thicket Reservoir for the storage of source water (water that is used as a source for drinking water) which includes recycled water from the proposed WRP and spring water from Bedhampton Springs.
- Diversion of treated wastewater streams at Budds Farm WTW.
- Increases in flows received at Otterbourne WSW.
- The use of the Eastney Long Sea Outfall, Eastney Pumping Station, and associated Eastney Transfer Tunnel for the release of reject water from the proposed WRP.

- The use of pipelines that are being consented and constructed separately by Portsmouth Water between Bedhampton Springs and Havant Thicket Reservoir.

1.3 Definitions

1.3.1 In this preliminary Outline CEMP, the **contractor** means any contractor appointed by the Applicant to deliver the construction works (and also includes any subcontractors appointed by the contractor to carry out any part of the construction works).

1.4 CEMP stages

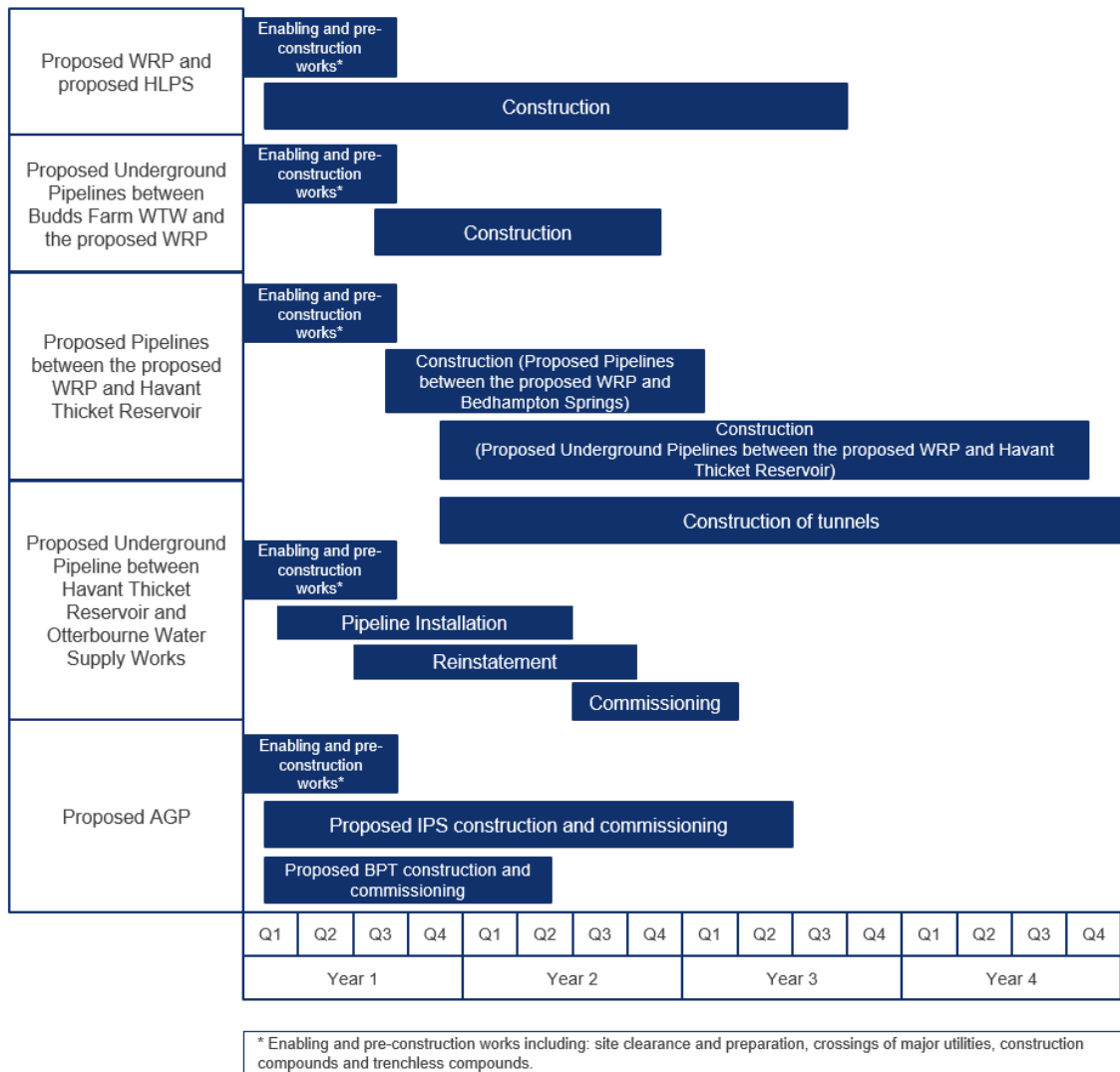
1.4.1 The CEMP sets out the measures for control and management of environmental effects during construction. Table 1-1 summarises the different iteration stages of the CEMP and when it will be produced or refined.

Table 1-1 CEMP iteration stages

Project stage	CEMP iteration	Produced/refined
Design - PEI Report	Preliminary Outline CEMP is the first iteration of the CEMP produced during the design stage.	Produced
Design – ES	Outline CEMP will be the second iteration of the CEMP refined in line with the ES and EIA outcomes and submitted with the DCO application.	Refined
Construction	The detailed CEMP would be the third iteration refined for the construction stage for the consented project, prepared by the contractor. It is anticipated that this will be secured via a DCO requirement.	Refined

1.5 Construction programme

1.5.1 The anticipated construction programme for the Proposed Development is set out in Graphic 1-1.



Graphic 1-1 Indicative construction programme

1.5.2 Graphic 1-1 sets out that the Proposed Development is anticipated to be constructed over a four-year period. It is currently expected that construction would commence in 2028 however this is dependent on the granting of the DCO and the detailed design programme.

1.6 Structure of this preliminary Outline CEMP

1.6.1 The remainder of this preliminary Outline CEMP is structured as follows:

- Section 2: Environmental policy, legal and regulatory requirements. This section provides an overview of the legislative requirements the contractor, once appointed, must adhere to, along with the relevant consents and permissions, and an outline of the environmental records and inspections needed.
- Section 3: Roles and responsibilities. This section defines the roles which a contractor, once appointed, will identify within the Outline CEMP, to deliver the environmental commitments. This section provides a description of construction staff training procedures and outlines induction, training, and

briefing procedures for staff. This section also outlines the monitoring and reporting requirements.

- Section 4: General site requirements. Outlines standard procedures such as working hours, site layout and good housekeeping, incident reporting and worksite security.
- Section 5: Environmental actions and commitments, including the REAC Table 5-2. This section identifies the environmental commitments to address the environmental effects of the works. The detailed CEMP developed by the contractor, once appointed, would be developed in accordance with the principles set out in Table 5-2.
- Section 6: Construction management plans. This section lists the construction management plans that will be provided as appendices to the Outline CEMP for submission with the DCO, along with the management plans and environmental method statements the constructor shall prepare for certain environmental topics.
- List of abbreviations and references.

2 Environmental policy, legal and regulatory requirements

2.1 Environmental policy and legal requirements

- 2.1.1 The contractor, once appointed, will adhere to all legislative requirements. The control measures included in the Outline CEMP shall be designed to achieve regulatory compliance as a minimum and additionally, to accord with best practice, where relevant.
- 2.1.2 The contractor, once appointed, will be responsible for managing construction in accordance with the DCO. In order to ensure compliance with the environmental requirements identified in the ES and to encourage continual improvement in environmental performance, the contractor, once appointed, will develop and maintain an Environmental Policy as part of their Environmental Management System (EMS). This policy will be developed in line with the objectives of the Proposed Development, and will set out how the contractor, once appointed, will:
- Adhere to the requirements of all relevant legislation.
 - Commit to mitigating the impacts associated with construction.
 - Commit to good practice in environmental performance.
 - Identify opportunities to improve the Proposed Development's whole life performance in terms of environmental and social implications.
- 2.1.3 The contractor, once appointed, shall be required to have EMS based on the requirements of BS EN ISO 14001:2015. The contractor's (once appointed) EMS will define appropriate control measures and monitoring systems to be employed during the planning of construction of the works for all relevant topic areas, as listed in the REAC Table 5-2. The EMS is the primary mechanism by which environmental policy commitments such as compliance with relevant legislation and standards, pollution prevention and continual improvement in environmental performance are measured, monitored and delivered.

2.2 Consents and permissions

- 2.2.1 The contractor, once appointed, will be responsible for obtaining and adhering to additional consents and permissions for the construction works that relate directly to measures within the Outline CEMP. A brief indicative summary of possible consent requirements identified includes:
- Licences for legally protected species (including with regards to badger, bats, hazel dormice, otter, water vole, great crested newt and Schedule 1 birds as per the Wildlife and Countryside Act 1981 (as amended)).
 - Environmental Permits for the management of waste from site, to protect the environment against contamination.
 - Environmental Permits for a mobile crushing operations.
 - Environmental Permits (for example, water discharge and groundwater activities, industrial emissions).
 - Section 61 agreement under the Control of Pollution Act (1974).

Section 61

- 2.2.2 Where required the contractor, once appointed, will seek to obtain consents from the relevant local authority under Section 61 of the Control of Pollution Act 1974 for the proposed construction works. Applications will be made to the relevant local authority for a Section 61 consent at least 28 days before the relevant work is due to start, or earlier, if reasonably practicable.
- 2.2.3 The application of a Section 61 consent will require noise (and where appropriate vibration) assessments to be undertaken and Best Practicable Means measures set out to manage noise associated with construction of the Proposed Development.

2.3 Environmental records inspections

- 2.3.1 This section describes systems of recording and inspections that will be required to maintain an audit trail of the environmental obligations. This will be managed through the Quality and Safety Management Systems (QSMS) and the EMS of the contractor, once appointed, which will be certified in line with the ISO 14001 standards.
- 2.3.2 The management systems would set out processes, practices, and plans for monitoring and implementing environmental management on site, and for responding to noted areas of non-compliance. This will ensure that a high standard of environmental control is maintained during the construction of the Proposed Development through the corrective action system managed by the contractor.
- 2.3.3 The contractor's (once appointed) EMS will establish record-keeping arrangements and a central filing system for checklists, reports and monitoring consistent with the Project QSMS and EMS.
- 2.3.4 To encourage continual performance improvement, the contractor, once appointed, should ensure that relevant aspects of the EMS, including management plans and strategies are regularly reviewed, audited, and updated.

3 Roles and responsibilities

3.1 Site roles and responsibilities

- 3.1.1 The contractor, once appointed, will be required to produce and adhere to a detailed CEMP which has been brought forward in accordance with the Outline CEMP. The Applicant will take appropriate action where required to ensure compliance.
- 3.1.2 The responsibilities in relation to implementation and adherence to the detailed CEMP will be defined in the Outline CEMP to be submitted as part of the DCO.
- 3.1.3 The contractor, once appointed, shall establish a management structure that includes an organisational chart encompassing all staff responsible for delivery of environmental mitigation measures and shall include this chart within the detailed CEMP. The chart will set out the respective roles and responsibilities with regard to the environment.

3.2 Training and competence

- 3.2.1 The contractor, once appointed, will hold responsibility for the identification of training requirements of their personnel. The identification of training requirements will enable appropriate training to be provided and suitably qualified and experienced professionals will be engaged for this purpose.
- 3.2.2 The training programmes will prepare relevant staff with the appropriate level of knowledge on health and safety regulations, community relations, and environmental topics, in addition to the ability to adhere to environmental control measures and advise employees of changing circumstances throughout the construction operations.
- 3.2.3 Specific training needs will be identified and provided for all personnel involved in work activities that could result in adverse impacts on the environment. Training would include reference to the importance of adhering to the contents of the CEMP and the potential consequences of departure from specified method statements. Environmental training in the form of Toolbox Talks will also be undertaken on site, evidence of which would be maintained on record.
- 3.2.4 The contractor, once appointed, will ensure all personnel conducting environmental tasks are suitably qualified and/or experienced for the roles and responsibilities that they are employed to undertake. The contractor, once appointed, will monitor and record that all staff have attended the relevant environmental induction or training prior to undertaking any activities on site.
- 3.2.5 The contractor, once appointed, will develop a programme of training on environmental issues prior to and during the construction stage. On commencement of site mobilisation, the contractor, once appointed, will be responsible for site inductions and training. All site personnel and visitors are to receive site safety induction and environmental awareness training from the principal contractor, once appointed, prior to commencing work on site. This would introduce accountability for personnel working on the Proposed Development.

- 3.2.6 Those participating on or near to specific activities that have an environmental impact are required to attend additional training or Toolbox Talks which will be led by the contractor, once appointed, or specialists on ecology (species-specific or location-specific), pollution control, waste management and emergency procedures for minor and major incidents.

3.3 Monitoring and reporting

- 3.3.1 The contractor, once appointed, will undertake the appropriate monitoring and reporting as outlined for each environmental topic within the detailed CEMP. The monitoring process will evaluate the effectiveness of mitigation measures and the potential impact of construction operations associated with the Proposed Development.

4 General site requirements

4.1 Construction working hours

4.1.1 The typical working hours for construction of the Proposed Development would be as follows:

- **Monday to Friday:** 07:00 to 19:00 in summer and 07:00 to 17:30 in winter
- **Saturday:** 07:00 to 17:00

4.1.2 Works outside these typical working hours or overnight (including Sundays and bank holidays) may be required for construction of some aspects of the Proposed Development including, but not restricted to, trenchless crossings and tunnelling construction works within or near highways and railways, and abnormal load deliveries. This may be as a result of ground conditions that require continuous working or for works within highways to reduce traffic disruption. The Outline CEMP will provide further information on typical working hours and the process for working outside of these.

4.2 Site layout and good housekeeping

4.2.1 To reduce the likelihood of an environmental incident or nuisance occurring, the contractor will ensure good housekeeping and cleanliness on sites, the following measures will be used, where relevant:

- Provision of staff welfare facilities and waste management.
- Cleanliness on site.
- Effective preventative pest and vermin control.
- Prohibition of open fires, and a requirement to take measures to control the risk of fire.
- Removal or stopping and sealing of drains and sewers taken out of use; no discharge of site run-off to ditches, watercourses, drains, sewers or soakaways without the agreement of the appropriate authority.
- Maintenance of wheel-washing facilities or other containment measures.
- Location of storage, machinery, equipment, and temporary buildings to minimise environmental effects and, where practicable, outside flood risk areas.
- Containing and limiting the visual intrusion of construction sites, as far as reasonably practicable.

4.3 Daily inspection check list

4.3.1 The contractor, as the responsible construction site owner, will ensure environmental mitigation and staff responsibilities are made clear to site managers, sub-contractors, and site supervisors. This would be managed through site inductions and specialist training as outlined in section 0. The contractor will make key staff aware of their responsibilities for undertaking daily routine checks of the site and equipment.

- 4.3.2 It will be essential that the contractor has processes and protocols in place for environmental aspects to be checked. The contractor will insert their standard inspection forms and checklists that are associated with their internal EMS into the detailed CEMP appendices for information.
- 4.3.3 Once inspection and daily checks have been completed, they will be logged, and corrective actions implemented by the delegated site manager in discussion with the contractor.

4.4 Incident reporting

- 4.4.1 The contractor will be responsible for the development of the emergency procedures associated with construction of the Proposed Development. The procedures will be standardised across the various work sites and will account for the anticipated hazards relevant to the site-specific layout. The emergency procedures will contain phone numbers for the emergency services and the principal staff of the contractor, in addition to the method for notifying statutory authorities.
- 4.4.2 The contractor will develop and implement appropriate measures to control the risk of pollution resulting from construction operations. The contractor will prepare a Pollution Prevention Management Plan which will provide detail on how to handle and report environmental incidents, including proactive management practices to ensure that any pollution incident that may occur is controlled, reported to relevant parties and remediated. The plan will define the criteria for implementing the relevant measures.

4.5 Worksite security

- 4.5.1 The contractor will carry out site-specific assessments of security and trespass risk and implement appropriate control measures. The following measures will be used to prevent unauthorised access to the site:
- Use of fencing or hoarding as appropriate.
 - Site lighting at site perimeters as appropriate.
 - Adequate security measures as deemed appropriate.
 - CCTV where required.
- 4.5.2 The design of hoardings around construction activities shall include consideration of the character of the surrounding landscape. Fencing and hoarding shall be kept well maintained by the contractor throughout construction. The features will further enhance the site security and public safety.

4.6 Lighting

- 4.6.1 Construction activity may require the use of temporary lighting to allow safe working outside daylight hours and in areas restricted from natural light. This has the potential to cause nuisance and adversely impact upon nearby sensitive receptors including the South Downs National Park's protected dark skies [1], local residents and ecology. Lighting which causes glare can also negatively affect workers.

- 4.6.2 Controlling the amount of light pollution (backlight / up light and glare) generated on site not only reduces and/or mitigates nuisance and disturbance, but also reduces the energy used on site. Measures will be adopted to enhance safety and security within and around the construction sites.
- 4.6.3 Where working after dark is necessary, task lighting will be kept to a minimum. Lighting would be of the lowest luminosity necessary for safe delivery of each task. It would be designed, positioned and directed to reduce the intrusion into adjacent properties and habitats, in particular to avoid light spill on sensitive habitats and, wherever practicable, to avoid any light spill within 20m of any confirmed bat roost.

4.7 Communication

- 4.7.1 The contractor shall arrange and attend meetings with relevant statutory bodies as necessary.
- 4.7.2 Site environmental notice boards shall display the Environmental Policy of the contractor, Emergency Contact List, relevant statutory and non-statutory advice; guidance; and any other relevant information. These Environmental Notice Boards shall be situated in prominent positions.
- 4.7.3 Contact details for the Site Offices will be publicised in advance of the works using appropriate measures such as site signage and notice boards. A detailed reporting procedure will be developed and implemented throughout the construction phase by the contractor.
- 4.7.4 Careful monitoring of complaints received, including recording details of the location of the affected party, time of the disturbance and nature of the disturbance shall be undertaken to assist with managing the works to reduce the likelihood of further complaint.
- 4.7.5 The contractor will be required to sign up and adhere to the Considerate Constructors Scheme.

5 Environmental actions and commitments

5.1.1 The REAC (Table 5-2) identifies the environmental actions and commitments of the construction works. The REAC (Table 5-2) presents an initial register which has been developed using information from the PEI assessment. The REAC (Table 5-2) includes:

- A clear and specific description of the action/commitment to be taken.
- The objective of that action/commitment.
- The relevant PEI Report chapter.

5.1.2 Additional information such as responsible persons, monitoring requirements and how the actions and commitments will be implemented or secured will be set out in the Outline CEMP that is submitted as part of the DCO.

5.1.3 Table 5-1 provides a summary of the scope of each column within the REAC (Table 5-2).

Table 5-1 Explanatory guide to REAC table columns

Column	Explanation
Reference (ref.)	A unique identifier defined within the REAC table to enable simple reference to individual measures.
Environmental action/commitment	Clear and specific description of the action/commitment is defined, including the specific location.
Objective	The objective of the action/commitment. Reference to relevant legislation requirements which the action/commitment meets.
Relevant PEI Report Chapter	The source of the action (e.g. topic assessment within PEI Report). Where no source reference is given, the measure is normally one which is relevant across a range of technical areas and is a broader control measure (e.g. working hours).

5.1.4 The REAC (Table 5-2) does not define general legislative requirements. However, the measures outlined in the REAC (Table 5-2) will comply with applicable legislation and recognised industry good practice.

5.1.5 The contractor, once appointed, will be responsible for updating the REAC contents when preparing the detailed CEMP. The CEMP will be prepared in accordance with the principles of this preliminary Outline CEMP.

Table 5-2 REAC Table

Ref	Environmental action/commitment	Objective	Relevant PEI Report Chapter
Air quality and odour			
AQ1	<p>Communications:</p> <ul style="list-style-type: none"> Develop and implement a stakeholder communications plan that includes community engagement before work commences on site. Display the name and contact details of person(s) accountable for air quality and dust issues during construction works. This may be the environment manager/engineer or site manager. Display the regional or office contact information. 	To minimise disturbance/nuisance to communities as a result of dust, air pollution and exhaust emission during the construction works.	PEI Report Chapter 6 Air quality and odour, Volume I
AQ2	<p>Dust management:</p> <ul style="list-style-type: none"> Develop and implement a Dust Management Plan (DMP) as part of the CEMP. The DMP may include measures to control other emissions, approved by the local planning authority. 		
AQ3	<p>Site management:</p> <ul style="list-style-type: none"> Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken. Make the complaints log available to the local planning authority if requested Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the logbook. 	To minimise dust, air pollution and exhaust emission during the construction works.	
AQ4	<p>Monitoring:</p> <ul style="list-style-type: none"> Carry out regular site inspections to monitor compliance with the DMP, record inspection results, 		

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Ref	Environmental action/commitment	Objective	Relevant PEI Report Chapter
	<p>and make an inspection log available to the local planning authority when requested.</p> <ul style="list-style-type: none"> ▪ Increase the frequency of the site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. 		
AQ5	<p>Preparing and maintaining the construction site:</p> <ul style="list-style-type: none"> ▪ Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible. ▪ Erect solid screens or barriers around dusty activities during construction works. ▪ Use dust suppression system where there is a high potential for dust production and the site is active for an extensive period. ▪ Avoid site runoff of water or mud. ▪ Keep site fencing, barriers and scaffolding clean using wet methods. ▪ Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. ▪ Manage storage areas to prevent wind whipping. 		
AQ6	<p>Construction operations:</p> <ul style="list-style-type: none"> ▪ Only use cutting, grinding, or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g., suitable local exhaust ventilation systems. ▪ Ensure an adequate water supply on the site for effective dust/particulate matter 		

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Ref	Environmental action/commitment	Objective	Relevant PEI Report Chapter
	<p>suppression/mitigation, using non-potable water where reasonably practicable and appropriate.</p> <ul style="list-style-type: none"> ▪ Use enclosed chutes and conveyors and covered skips. ▪ Reduce drop heights from handling equipment and use fine water sprays on such equipment wherever appropriate. ▪ Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods. 		
AQ7	Waste management: avoid bonfires and burning of waste materials.		
AQ8	Ensure sand and other aggregates are stored in appropriate manner to reduce dust generation for example the use of bunded areas.		
AQ9	<p>Measures specific to trackout:</p> <ul style="list-style-type: none"> ▪ Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. ▪ Avoid dry sweeping of large areas where reasonably practicable. ▪ Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport. ▪ Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable. 		

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Ref	Environmental action/commitment	Objective	Relevant PEI Report Chapter
	<ul style="list-style-type: none"> ▪ Record all inspections of haul routes and any subsequent action in a site logbook. ▪ Install hard surfaced haul routes where reasonably practicable, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned. ▪ Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud) prior to leaving the site where reasonably practicable. ▪ Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits. ▪ Locate access gates at least 10m from receptors where reasonably practicable. 		
AQ10	All vehicles would switch off engines when stationary – no idling vehicles.	To reduce Non-Road Mobile Machinery (NRMM) pollutant emissions from construction.	
AQ11	Avoid the use of diesel- or petrol-powered generators and instead use mains electricity or battery powered equipment where reasonably practicable.		
AQ12	Impose and clearly indicate a maximum-speed-limit of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas.		
AQ13	NRMM and plant should be well maintained. If any emissions of dark smoke occur, then the relevant machinery should stop immediately, and any problem rectified.		
AQ14	All NRMM should use fuel equivalent to ultralow sulphur diesel (fuel meeting the specification within EN590:2004) where reasonably practicable.		

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Ref	Environmental action/commitment	Objective	Relevant PEI Report Chapter
AQ15	Consideration given to the siting of NRMM within the working area. Where practicable, locating generators and plant at the greatest distance from receptors would reduce the potential for air quality effects.		
AQ16	<p>All diesel NRMM should be fitted with Diesel Particulate Filter (DPF) conforming to defined and demonstrated filtration efficiency (load/duty cycle permitting):</p> <ul style="list-style-type: none"> ▪ The ongoing conformity of plant retrofitted with DPF, to a defined performance standard, should be ensured through a programme of on-site checks. ▪ Fuel conservation measures should be implemented, including instructions to: <ul style="list-style-type: none"> ○ Throttle down or switch off idle construction equipment. ○ Switch off the engines of trucks while they are waiting to access the site and while they are being loaded or unloaded. <p>Ensure equipment is properly maintained to ensure efficient fuel consumption.</p>		
AQ17	Control odour as needed during the cut and fill programme of the proposed WRP due to exposure of the landfill waste.	Control odour as needed during the cut and fill programme of the proposed WRP due to exposure of the landfill waste.	
AQ18	During excavation of contaminated materials, suppress odour where necessary through damping down and/or misting as appropriate.		
Archaeology and cultural heritage			
ACH1	Use of trackway and/or matting for access where reasonably practicable in areas of archaeological interest during construction.	To avoid disturbance to areas of archaeological interest.	PEI Report Chapter 7 Archaeology and cultural heritage, Volume I

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Ref	Environmental action/commitment	Objective	Relevant PEI Report Chapter
ACH2	Use of standardised noise reduction techniques covered in the noise and vibration section of this table (NV2), and/or phasing of works as necessary as set out in NV1.	To reduce the risk of noise and vibrations on cultural heritage assets.	
ACH3	Adherence to the written scheme of investigation, agreed with the relevant consultees, which will define the scope and methods of archaeological investigation required.	To reduce the risk of damage to cultural heritage assets found on site.	
ACH4	Adherence to the written scheme of geoarchaeological investigation, agreed with the relevant consultees.	To minimise disturbance of deposits of geoarchaeological interest.	
ACH5	Reinstatement of vegetation and earthworks as far as reasonably practicable for the Proposed Development subject to limitations set out in LVI2.	To minimise loss of existing landscape features of value, such as trees, woodland, and hedgerows.	PEI Report Chapter 7 Archaeology and cultural heritage, Volume I, subject to limitations as set out in LV12
Terrestrial and freshwater biodiversity			
TFB1	Best practice measures that will be implemented during construction of the Proposed Development to mitigate construction-related effects on biodiversity associated with dust deposition, air pollution (see AQ1 to AQ18), pollution incidents (see MAD5), water quality (see WE1 to WE16), light (see TFB12), noise, and vibration (see NV1 and NV2). Further details will be included within the Outline CEMP that will be submitted with the DCO application, e.g. damping down of construction areas as part of dust prevention. The Outline CEMP will include proactive actions and measures to control pollution risks.	To reduce pollution risk.	PEI Report Chapter 8 Terrestrial and freshwater biodiversity, Volume I
TFB2	Construction working areas and haul routes will be clearly demarcated in the CEMP prepared by the contractor, once appointed, and boundaries adhered to where these are located adjacent to retained habitats.	To reduce damage to retained habitats.	
TFB3	The contractor, once appointed, will comply with relevant protected species legislation including with regards to	Protected species licence compliance.	

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	badger, bats, hazel dormice, otter, water vole, great crested newt and Schedule 1 birds. Appropriate licences would be obtained where necessary from Natural England for all works affecting protected species as identified by the ES and through pre-construction surveys. All applicable works would be undertaken in accordance with the relevant mitigation requirements and conditions set out in those licences.		
TFB4	Pre-construction surveys will be undertaken by the contractor, once appointed, to confirm and update the baseline survey findings, as required, to ensure mitigation is consistent with the current baseline. Further pre-commencement checks will be undertaken, as required.	To manage changes in the baseline between DCO production and commencement of construction.	
TFB5	The contractor, once appointed, will provide a suitable method statement in accordance with the Outline INNS Management Plan that will accompany the DCO application. This will set out how identifiable areas with the potential presence of plant species listed in Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and other Invasive Non-Native Species (INNS) would be demarcated, and how any affected soils would be appropriately managed throughout the works, including any disposal.	To minimise spread of INNS due to construction activities.	
TFB6	A qualified and experienced Ecological Clerk of Works (ECoW) would be available during the construction phase, to advise, supervise and report on the delivery of the mitigation methods and controls outlined in the CEMP. The ECoW would be supported as necessary by appropriate specialists. The ECoW will ensure that the Outline CEMP is implemented.	To minimise damage to or disturbance of ecological features or receptors.	

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TFB7	Where individuals of any species protected by biodiversity legislation are noted during the works, construction operations will stop in those areas and the ECoW contacted for further advice on how to proceed, as indicated in the CEMP.		
TFB8	Exclusion fencing will be used, where necessary to protect retained habitats and avoid species mortality. Further details will be included in the Outline CEMP that will be submitted with the DCO application.		
TFB9	Where sensitive features are to be retained within or immediately adjacent to the draft Order Limits, an appropriate buffer zone would be created where this extends within the draft Order Limits. The buffers would be established using appropriate fencing and signage. A suitable method statement would be produced to ensure that construction works are undertaken in a manner that reduces the risk of damage or disturbance to the sensitive feature, which will sit within the Outline CEMP submitted with the DCO application.	To minimise damage to retained habitats.	
TFB10	<p>During the bird breeding season, the removal of vegetation with the potential to support bird nests should be avoided, or should be programmed for the period outside of the breeding bird season where practicable.</p> <p>The bird breeding season is defined by the government as March to August inclusive, but several species nest outside of this period and decisions will be ultimately informed by an experienced ornithologist. If it is not possible to remove vegetation outside of the breeding bird season, then the risk would be mitigated by pre-construction checks by a suitably experienced ornithologist, and carried out within 24-48 hours maximum of work starting. A suitable methodology for</p>	To minimise disturbance of breeding birds	

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	<p>checking if active nests are present will be determined by a suitably qualified ornithologist based on habitat type and visibility.</p> <p>Appropriate protection measures would be put in place should active nests be found. If nests are found, work will not proceed in these areas until any chicks have fledged or are no longer reliant on the nest. These would include exclusion zones around active nests until chicks fledge or nests become inactive as determined by monitoring by the ECoW as disturbance distances vary between species.</p>		
TFB11	<p>Habitat with the potential to support hibernating protected species would not be removed between November and March (inclusive) without supervision by the ECoW, or unless previous mitigation has been implemented to exclude, remove, or encourage these animals out of the works area (e.g. habitat manipulation for dormice and reptiles).</p>	<p>To minimise damage to or disturbance of hibernation features.</p>	
TFB12	<p>Where working after dark is necessary, task lighting will be kept to a minimum. Lighting would be of the lowest luminosity necessary for safe delivery of each task. It would be designed, positioned and directed to reduce the intrusion into adjacent properties and habitats, in particular to avoid light spill on sensitive habitats and, wherever practicable, to avoid any light spill within 20m of any confirmed bat roost.</p>	<p>To minimise disturbance to ecological features or receptors, notably bat roosting or hibernation features.</p>	
TFB13	<p>Working within ecologically designated sites would be controlled using a variety of methods. These would take account of the reasons for designation to identify the appropriate techniques to reduce impacts. This could</p>	<p>To minimise damage to or disturbance of designated sites.</p>	

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	include reducing working corridor widths or the use of low ground pressure plant.		
TFB14	Open cut crossings of watercourses would be subject to temporal constraints, dependant upon the assemblage of freshwater species present. Between October to December and March to May (both inclusive), works undertaken in the channel or close to bank tops would be reduced/restricted because of the sensitivity of these periods for fish species (if present). Where not possible, the flow will be maintained during construction (such as a temporary side channel).	To minimise damage to or disturbance of watercourses.	
TFB15	Where reasonably practicable, no works will take place within 5m of the bank top of any watercourse. Where this is not possible (i.e. at crossing points) best practice guidance for pollution prevention will be followed.	To minimise damage to or disturbance of watercourses.	
TFB16	All habitats suitable for common reptiles would be subject to two-stage habitat manipulation between mid-March and mid-October under the supervision of an ECoW. Vegetation clearance would be achieved using appropriate equipment based on the type of vegetation to be removed, the area affected, and the risk of killing or injuring reptiles. Construction works could commence immediately after completion of the second stage.	To minimise risk of killing or injuring reptiles.	
TFB17	Where practicable, replacement hibernacula and refugia would be provided using arisings from vegetation clearance, and within the draft Order Limits to mitigate habitat loss to reptiles and amphibians.	To minimise habitat loss for reptiles and amphibians.	
TFB18	Where practicable, potential disturbance to ponds would be timed to avoid the amphibian breeding season (January to June, inclusive) or would be supervised by an ECoW.	To minimise habitat loss for amphibians.	

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TFB19	<p>Where there would be a risk of animal entrapment, such as where excavations have to be left open overnight and cannot be covered, one 45° ramp every 50m will either be included in the construction of the excavation or placed within it to allow animals to escape. Deeper excavations would be appropriately fenced to prevent animals from gaining access.</p> <p>All excavations left open overnight or longer will be checked for animals prior to the continuation of works or infilling.</p>	To minimise risk of animal entrapment.	
TFB20	A construction exclusion zone will be set up around trees to be retained. This will separate root protection areas (RPAs) and ancient tree buffer zones from the works area using temporary tree protection fencing where practicable. The protective fencing will be maintained for the duration of the construction phase and checked on a regular basis.	To minimise damage to tree roots resulting in loss of trees.	
TFB21	In the event that an RPA or buffer zone cannot be excluded from the works area, mitigation such as ground protection and manual excavation will be utilised. No machinery or material will be stored within the RPA.		
Carbon and climate change			
CCC1	Measures to reduce emissions from vehicle, plant and equipment use are aligned with the measures set out in AQ10, AQ11, and AQ13.	To reduce the amount of greenhouse gas emissions to the global atmosphere.	PEI Report Chapter 10 Carbon and climate change, Volume I
CCC2	<p>Implement the Temporary Construction Drainage Plan measures as set out in WE5 and WE6 to reduce the risk of flooding.</p> <p>Incorporate the following measures to account for the exposure of site workers and construction plant to</p>	Climate change resilience.	

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	<p>extreme weather events ensuring appropriate preparation and responses are in place to minimise the impact of climate change hazards during construction:</p> <ul style="list-style-type: none"> ▪ Schedule construction activities based on timely weather forecasts. ▪ Monitor on-site weather conditions and severe weather alert services. ▪ Incorporate a severe weather protocol and assign clear responsibilities in the event of an emergency; and ▪ Require contractors, once appointed, to include additional provisions in their management plans based on weather conditions during construction such as additional rest breaks during heatwaves, securing stored equipment and material during high wind events and specifying de-icing equipment during cold spells. 		
Land quality and ground conditions			
LQGC1	Develop and adhere to risk assessments and method statements protective of human health, the environment and controlled waters informed by findings from ground investigations and interpretive reports.	Reduce potential risks to human health, environmental and controlled water receptors from potentially contaminated soils and groundwater.	PEI Report Chapter 11 Land quality and ground conditions, Volume I
LQGC2	Appropriate personal protective equipment will be worn by all contractors, once appointed.	Reduce exposure of workforce, landowners, and land users to contaminated soils and groundwater and associated health impacts.	
LQGC3	Provision of welfare facilities.	Reduce exposure (for instance dermal cross contamination) of workforce to contaminated soils and groundwater and associated health impacts.	

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LQGC4	Monitoring of works including air quality and odour as outlined in AQ17, AQ18, AQ3 and AQ4.	To minimise odour and dust nuisance.	
LQGC5	Appropriate storage area management and dust suppression as outlined in AQ2, AQ3 and AQ5.	To reduce the risk relating to the creation and inhalation of wind-blown dusts.	
LQGC6	The Contractor, once appointed, will prepare a Plan for dealing with unforeseen contamination which would be secured as a requirement within the DCO.	To reduce risk to human health, environmental and controlled water receptors from unforeseen contamination.	
LQGC7	Adoption of CL:AIRE Definition of Waste Code of Practice to manage the re-use of excavated soils on site. The contractor, once appointed, will be required to produce and adhere to a Materials Management Plan that will be prepared in line with the Outline Materials Management Plan that will form part of the Outline CEMP submitted with the DCO application.	To maximise sustainability and provide an audit trail to demonstrate the appropriate use of materials (excluding areas of landfilling).	PEI Report Chapter 11 Land quality and ground conditions, Volume I and PEI Report Chapter 16 Resource and waste management, Volume I
LQGC8	A Site Waste Management Plan (SWMP) will be prepared to record any decisions given to materials resource efficiency when designing and planning the Proposed Development. Any assumptions on the nature of the Proposed Development; its design; the construction method or materials employed, in order to minimise the quantity of waste produced by the Proposed Development; or maximise the amount of waste reused, recycled or recovered, will be captured within the SWMP. The SWMP will be prepared in line with the Outline SWMP that is to be submitted with the DCO application and attached as an appendix to the Outline CEMP.	To maximise sustainability through reusing, recycling or recovering waste.	PEI Report Chapter 11 Land quality and ground conditions, Volume I and PEI Report Chapter 16 Resource and waste management, Volume I
LQGC9	Undertake a piling risk assessment where piles are to be used in areas of potential contamination in line with the EAs Piling and Penetrative Ground Improvement	To mitigate risk of release of contaminated water/leachate into watercourses/groundwater and to minimise the potential increase in ground	PEI Report Chapter 11 Land quality and ground conditions, Volume I

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	Methods on Land Affected by Contamination: Guidance on Pollution Prevention [2]. This piling risk assessment will form part of the Foundation Works Risk Assessment for submission with the DCO application.	gas risk via the creation of preferential pathways due to piling.	
Land use and agriculture			
LUA1	Adherence to the Soils Resource Management Plan to be prepared by the contractor, once appointed, in line with the Outline Soils Resource Management Plan that is to be submitted with the DCO application and attached as an appendix to the Outline CEMP.	Reduce the impact upon soils.	PEI Report Chapter 12 Land use and agriculture, Volume I
LUA2	Adherence to the SWMP to be prepared by the contractor, once appointed, in line with the Outline Site Waste Management Plan that is to be submitted with the DCO application and attached as an appendix to the Outline CEMP.		
LUA3	Adhere to the Outline Landscape and Ecology Management Plan, that is to be submitted with the DCO application and attached as an appendix to the Outline CEMP.		
LUA4	Where open spaces will be partially required for construction, maintain safe access to unaffected areas of open space where feasible and appropriate.	Reduce the impact on open space.	
Landscape and visual			
LV11	Reduce the duration and footprint of construction activity where reasonably practicable; locating development in the least prominent positions and wherever practicable maximising the distance from nearby visual receptors; positioning the works to make use of existing natural	Minimise impact of construction on the landscape and visual receptors.	PEI Report Chapter 13 Landscape and visual, Volume I

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	features such as landform and vegetation to screen views.		
LVI2	Loss of existing landscape features of value will be mitigated with replacement planting as close to the location, type and character of the existing vegetation as practicable.	Avoid or minimise loss of existing landscape features of value, such as trees, woodland, and hedgerows.	
Major accidents and disasters			
MAD1	The risk of damage to utilities will be managed through the contractor's (once appointed) Permit to Dig which will include details for an emergency response which would be employed should a utility be damaged. Further information on this will be included in the ES and the Permit to Dig.	To manage risk of damage to utilities during construction phase.	PEI Report Chapter 14 Major accidents and disasters, Volume I
MAD2	Where the works occur within a flood risk zone, the contractor, once appointed, would be obliged to carry out a risk assessment and install necessary control measures to mitigate the risk of flooding.	To manage flooding risk.	
MAD3	The contractor, once appointed, would include the risk of fire and the way in which they would respond to an incident in an Emergency Management Plan.	To manage fire risk.	
MAD4	Various types of mitigation have been recommended in PEI Report Appendix 14.2 UXO survey, Volume II, appropriate to the risk level, including a Unexploded Ordnance (UXO) Safety and Awareness Briefing, Site Specific Safety Instructions, Explosive Ordnance Disposal Engineer Watching Brief and magnetometer surveys.	To manage UXO risk.	
MAD5	Best practice pollution prevention measures and the requirements for a Pollution Prevention Management Plan. The Pollution Prevention Management will be produced by the contractor, once appointed, for pollution events, which will provide detail on how to handle and	To manage pollution risk.	PEI Report Chapter 14 Major accidents and disasters, Volume I

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	report environmental incidents, including measures to manage spills (e.g. through the use of a spill kit), and to clean up following an incident.		
Noise and vibration			
NV1	<p>Use of Best Practicable Means (as per BS 5228-1) during construction works. Application of below measures to control and reduce construction noise emissions:</p> <ul style="list-style-type: none"> ▪ Scheduling works, where practicable, to minimise noise and vibration emissions at highly sensitive times. ▪ Scheduling works, where practicable, to avoid multiple activities being undertaken simultaneously near to Noise and Vibration Sensitive Receptors (NVSRs). ▪ Selection of plant and working methods to minimise noise and vibration emissions whilst carrying out the work in an efficient and cost-effective manner. ▪ Shut down or throttling back of plant to idling speed in between periods of use. ▪ Maintenance of plant and equipment in good working order, with particular attention being paid to the condition of silencers and acoustic panels. ▪ Locating noisy equipment to minimise noise levels at NVSRs. ▪ Provision of acoustic screening and enclosures where required. ▪ Provision of less intrusive plant movement alarms, such as broadband vehicle reversing warnings and 	To comply with the requirements of the Control of Pollution Act 1974 to implement Best Practicable Means and minimise potential for construction noise and vibration to disturb occupants or users of sensitive receptors.	PEI Report Chapter 15 Noise and vibration, Volume I

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	<p>that vary the loudness level according to ambient noise levels.</p> <ul style="list-style-type: none"> Reducing intensity of works where required (e.g. due to proximity of NVSRs). 		
NV2	<p>Monitoring of noise and vibration during construction, to include physical and observational checks/audits at locations to be determined in consultation with relevant Local Planning Authorities. Locations selected shall be determined by the works being undertaken (and level of anticipated noise) and the sensitivity of receptor and will be informed by further calculations once detailed design and construction planning is complete.</p>	<p>To demonstrate that occupants or users of sensitive receptors are not being unduly disturbed by construction noise or vibration.</p>	
Resources and waste management			
RWM1	<p>A SWMP will be developed and implemented.</p>	<p>To reduce waste generation and ensure waste is managed in accordance with the waste hierarchy and Duty of Care requirements.</p>	<p>PEI Report Chapter 16 Resource and waste management, Volume I</p>
RWM2	<p>Dispose of hazardous construction material at non-hazardous landfill sites within a separate cell for Stable Non-Reactive Hazardous Waste (SNRHW) providing it meets SNRHW waste acceptance criteria.</p> <p>Further options under consideration for mitigating hazardous construction waste management effects, include:</p> <ul style="list-style-type: none"> Treatment and remediation of hazardous soils off-site. Off-site disposal or recovery through dewatering and incineration. 	<p>Reduce reliance on hazardous waste landfill capacity and reduce effect of hazardous construction waste.</p>	
Socio-economics, tourism and health			

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STRH1	Adhere to the Skills and Employment Plan that is to be submitted with the DCO application.	Support the development and employment of local skills.	PEI Report Chapter 17 Socio-economics, tourism and health, Volume I
STRH2	Adherence to PRow management measures and the Rights of Way Management Plan that will be submitted with the DCO application.	Minimise Right of Way severance.	PEI Report Chapter 3 Description of the Proposed Development, Volume I
STRH3	Secure barrier fencing, lighting (appropriate to setting) and gateperson (where practicable) to be in place to reduce safety risks and perceptions of safety risks around construction sites for the public.	Maintain public safety around construction sites.	PEI Report Chapter 17, Socio-economics, tourism and health, Volume I
Traffic and transport			
TT1	The contractor, once appointed, will be required to develop individual Construction Traffic Management Plans (CTMPs) for the relevant construction activities post DCO based on the principles set out in the Framework CTMP that will be submitted with the DCO application. The contractor, once appointed, will then need to adhere to the individual CTMPs.	To minimise the impacts of construction traffic on the local transport network.	Identified in EIA Scoping Response Hampshire County Council (HCC)
TT2	Adhere to the Framework Traffic Management Strategy that will be submitted with the DCO application.	To outline how traffic management will be implemented to minimise the impacts of construction in the public highway on the local transport network.	Identified in EIA Scoping Response (HCC)
TT3	The contractor, once appointed, will be required to develop a detailed Construction Worker Travel Plan(s) post DCO based on the principles set out in the Framework Construction Worker Travel Plan that will be submitted with the DCO application.	To reduce the traffic impacts of construction workers on the local transport network.	
TT4	Adhere to the Rights of Way Management Plan that will be submitted with the DCO application.	Outline how the PRow network will be impacted and the measures proposed to	Engagement with HCC

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		reduce impacts on pedestrian and cycle delay.	
Water environment			
WE1	Adhere to the Environment Agency (EA) Approach to Groundwater Protection 2018 Framework.	To minimise direct and indirect impacts on groundwater quality and groundwater resources.	
WE2	A Risk Assessment and Method Statement (RAMS) is to be prepared by the contractor, once appointed, specific to the tunnelling operations within the Source Protection Zone (most critically SPZ1 and 1c) and agreed with key stakeholders (EA and abstraction operators). The RAMS is to include a description on the tunnelling selection and methodology, evidence of past successful utilisation within karstic Chalk and SPZ1, identification of key risks to the aquifer (e.g., slurry loss, turbidity etc) and control measures to reduce risks. The Outline RAMS is to be prepared and appended to the Outline CEMP submitted with the DCO application.	Minimise impact on public water supplies.	PEI Report Chapter 19 Water environment, Volume I
WE3	Adhere to the water monitoring strategy that will be submitted as part of the ES. The strategy should include long-term groundwater monitoring in key areas (from installation to post-construction) to ascertain seasonal variability in groundwater levels and monitor groundwater fluctuations pre, during and post construction. A Water Monitoring Plan will be developed by the contractor, once appointed, in accordance with the Water Monitoring Strategy. This will be agreed with the EA and will confirm the pre-construction baseline and verify predicted impacts to the local groundwater regime from temporary and permanent construction effects during and post-construction.	Minimise hydrological/hydrogeological impacts.	

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WE4	A voids treatment protocol is to be developed by the contractor, once appointed, and to be agreed with the EA, to document how voids encountered during construction within the Chalk would be mitigated.	Minimise pollution risks and construction risks.	
WE5	<p>A Temporary Construction Drainage Plan will be prepared by the contractor, once appointed, to manage the quality and quantity of construction stage drainage, in accordance with the Outline Temporary Construction Drainage Strategy to be submitted with the Outline CEMP forming part of the DCO application. This is likely to include:</p> <ul style="list-style-type: none"> ▪ Channels with sufficient capacity to convey the required range of flows at each location. ▪ Changes in runoff to be attenuated and discharged at a controlled rate (green field runoff rate or equivalent). ▪ Temporary interceptor drainage ditches parallel to the pipeline corridor and any trenched crossings and soil storage areas to intercept surface water runoff. ▪ Use of pumps to remove water from trenches during pipeline installation. ▪ During decommissioning of drains, standing water should be pumped out to settling tanks and sediment that has settled out within the drain should be left in place with soil replaced in reverse order and vegetation reinstated. 	To manage surface water and associated flood risk during construction.	
WE6	The Temporary Construction Drainage Plan prepared by the contractor, once appointed, in accordance with the Outline Temporary Construction Drainage Strategy submitted with the DCO application will also incorporate	To reduce the risk of sediment entrainment during construction.	

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	<p>measures to reduce/remove risk of sediment entrainment, including:</p> <ul style="list-style-type: none"> ▪ Routing to avoid water resources and flood risk receptors where reasonably practicable. ▪ Limit the extent of open excavations along pipeline routes at any one time (as far as reasonably practicable). ▪ Topsoil to be stored and capped to minimise wind/water erosion. ▪ Minimise subsoil exposure and retain strips of undisturbed vegetation on the edge of working areas. ▪ On-site retention of sediment will be maximised by routing all drainage through site drainage systems. ▪ Interceptor drains for the settlement of sediment (sediment traps - locally wider/deeper areas of drains that encourage passive deposition). ▪ Where water enters construction areas, water would be pumped via settling tanks/filtration ponds before being discharged to local ditches or drains via interceptor drains to remove sediment. ▪ Weekly monitoring of sediment traps via visual inspection with increased monitoring during inclement weather. ▪ Cleaning of wheels to prevent soil and sediment on road surfaces. ▪ Where vegetation has been removed, reseed to prevent future runoff. 		
WE7	A range of measures will be incorporated to manage potential contamination risks, including:	To manage the risk of accidental spillages or leakage of contaminants into surface and groundwaters during construction.	

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	<ul style="list-style-type: none"> ▪ Fuels, oils lubricants and other chemicals to be clearly labelled and the site should retain an up-to date COSHH inventory. ▪ Fuels, oils lubricants and other chemicals to be stored in bunded compound (volume of which shall be at least equivalent to the capacity of the tank or tanks plus 10%), located in designated areas taking into account security, location of sensitive receptors and pathways (such as drains and watercourses), and inspected at least weekly for signs of spillage, leaks and damage. ▪ Portable bowsers with built-in bunds should be used for any refuelling activities required in working area, with the bowsers returned to the construction compound overnight. ▪ Small plant to be provided with drip trays. ▪ All construction plant should be inspected for fuel leaks before being delivered to working areas. ▪ Biodegradable oils to be used where reasonably practicable. ▪ Concrete/cement mixing (if required) and washing areas should be located at least 10m away from nearest water body; Washing areas to incorporate settlement and recirculation systems to allow water to be reused and all washing out of equipment would take place in a contained area and the water collected for disposal off-site. ▪ A Pollution Prevention Management Plan to be prepared by the contractor, once appointed, for pollution events will provide detail as to how to report and deal with environmental incidents including measures to manage spills (e.g. through use of spill 		

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	kits), or the release of hazardous substances, and to clean up following an incident.		
WE8	Undertake a piling risk assessment where piles are to be used in SPZ1 or SPZ2 areas, in line with the EAs Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention [2]. Further sensitive groundwater areas requiring a piling risk assessment may be identified during the Environmental Impact Assessment process. This piling risk assessment will form part of the Foundation Works Risk Assessment for submission with the DCO application.	To mitigate risk of release of cement to groundwater and increasing turbidity during piling, on local high value receptors (such as Public Water Supplies).	
WE9	Unforeseen contamination to be managed in line with requirements of LQGC6.	To mitigate risk of release of contaminated water into watercourses/groundwater.	
WE10	There may be a requirement for waste water from construction activities (such as dewatering) to be treated prior to discharge to foul sewer, ground or surface water (with the appropriate consents or permits).	Measures to manage pollution risks to the water environment associated with construction activity.	
WE11	<p>Additional measures to be employed when working in Flood Zone 2 or 3 to manage site safety and minimise pollution risk during periods of extreme weather (i.e. flooding):</p> <ul style="list-style-type: none"> ▪ Contractor, once appointed, to sign up to Environment Agency (EA) Floodline flood warning service. ▪ Machinery to be stored or returned to areas of hard standing, preferably remote from flood water or where not possible, sufficiently constrained as not to wash away. ▪ No spoil to be stored on functional flood plains (flood zone 3b). 	Measures to manage flood risk and prevent entrainment of plant and materials in case of a flood event.	

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	<ul style="list-style-type: none"> ▪ No storage of soil or other materials on watercourse banks and where possible, spoil to be set back from watercourses by 9m (this prevents excessive loading on watercourse banks and minimises risk of stored material entering the watercourses). ▪ Stores of chemicals/oils/fuels to be surrounded by an impervious bund wall and installed in the remotest possible location away from watercourses and from rising water and walls should be of sufficient height and structural soundness to withstand flood water ingress. ▪ Debris to be safely contained reducing risk of large items from entering flood flow. ▪ Monitoring of sediment traps more frequently during heavy rain and remove sediment, if necessary, prior to rain events. 		
WE12	<p>Where trenched crossings are to be carried out on an ordinary watercourse, the following measures will be incorporated:</p> <ul style="list-style-type: none"> ▪ Installation of a temporary dam should be undertaken upstream and downstream of the crossing point and the trench excavated in a dry environment. ▪ River flow should be maintained between the two dams using a temporary pump or flume using fish friendly filters. All pumps/flumes/diversion channels should be appropriately sized to maintain downstream flows whilst minimising upstream impoundment. ▪ The time a temporary dam is in place should be restricted as far as possible and fish rescue should 	<p>Measures to potential effects on watercourses associated with watercourse crossings.</p>	

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Ref	Environmental action/commitment	Objective	Relevant PEI Report Chapter
	<p>be undertaken between the temporary dams prior to dewatering.</p> <ul style="list-style-type: none"> ▪ Flood warning and evacuation measures should be put in place to both site users and off-site receptors associated with temporary works in watercourses. ▪ Where diversion channels are used, geotextiles or similar should be used to line the channel and prevent sediment release into the watercourse. ▪ Scour protection may be required to protect the river bed downstream of the dam from high energy flow at any outlets from flumes/pumps. 		
WE13	<p>Where temporary culverts are required for crossings (e.g. where haul road access across water courses is required), the following measures are required:</p> <ul style="list-style-type: none"> ▪ The culvert should be installed below the channel bed to avoid upstream impoundment, maintain sediment continuity and minimise impacts on the movement of fish and aquatic invertebrates. ▪ The culvert should be sized to accommodate likely worst-case flows (e.g. bankfull flow or equivalent), to be calculated for each crossing location and agreed with the appropriate competent authority as part of the permitting process. ▪ Suitable scour protection should be included to minimise impacts on the bed and banks of the channel. 	<p>To minimise the potential effects on watercourses associated with pipeline crossings.</p>	
WE14	<p>The pipeline should typically be installed at least 2m below the bed of the water body (dependent on local geology and geomorphological risks). This avoids exposure during periods of higher energy flow when the bed could be mobilised and the consequent change in</p>	<p>To minimise the potential effects on watercourses associated with pipeline crossings.</p>	

Hampshire Water Transfer and Water Recycling Project
Outline Construction Environmental Management Plan

Ref	Environmental action/commitment	Objective	Relevant PEI Report Chapter
	<p>geomorphological conditions. This depth takes into consideration anticipated climate-change related changes in fluvial flows and erosion that will occur over time. In addition, vegetation would not be removed from the banks unless necessary to undertake the works, in which case removal would be restricted to the smallest practicable footprint.</p>		
WE15	<p>For sections that are installed using trenchless techniques, a Bentonite Breakout Management Plan will need to be prepared by the contractor, once appointed, (to be done in accordance with the Outline Bentonite Breakout Management Plan submitted with the DCO) and agreed with the EA prior to commencement of construction activities.</p> <p>The Bentonite Breakout Management Plan is to consider breakout of all drilling fluids or muds (not just bentonite) that could breakout to the environment.</p> <p>Measures within this plan will need to include:</p> <ul style="list-style-type: none"> ▪ Measures to ensure drilling stops once a breakout is reported. ▪ Measures to contain breakout for example sandbags to minimise extent of smothering. ▪ Measures to remove released bentonite if a significant volume is released - for example pumped back to a bentonite lagoon within the trenchless crossing compound or pumped to interceptor drains. This would be confirmed by the contractor, once appointed, in advance of the commencement of construction. 	<p>To manage potential effects associated with the use of bentonite during pipeline installation for trenchless techniques - smothering of aquatic habitats.</p>	
WE16	<p>Discharges from proposed washout valves will be undertaken at a controlled rate, following a process to be defined in a Washout Management Plan to be produced by the Operator (and agreed with the EA and Lead Local</p>	<p>To minimise the effects of commissioning discharges on the hydrology and flood risk of surface waters.</p>	

Hampshire Water Transfer and Water Recycling Project
Outline Construction Environmental Management Plan

Ref	Environmental action/commitment	Objective	Relevant PEI Report Chapter
	Flood Authorities) being done so in accordance with the Outline Washout Management Plan submitted with the DCO application.		
WE17	A Flood Risk Emergency Plan will be produced by the contractor, once appointed, and agreed with the EA and LLFAs prior to commencement of construction. This will identify specific flood risks, including likely depth and duration, availability of flood warnings, identification of access and egress routes and will set out the emergency actions / measures that the contractor, once appointed, will implement to ensure the safe evacuation of staff and construction plant working in areas at risk of flooding in case of an emergency.	To maintain site and construction workers safety and prevent pollution in the event of a flood incident.	

6 Construction management plans

6.1.1 The construction management plans that will be provided as appendices to the Outline CEMP for submission with the DCO application include the following, noting that this list may evolve as the environmental assessments progress:

- Outline Materials Management Plan
- Outline Soils Resource Management Plan
- Outline Temporary Construction Drainage Strategy
- Outline Bentonite Breakout Management Plan
- Outline Risk Assessment and Method Statement (RAMS)
- Foundation works risk assessment

6.1.2 The contractor, once appointed, shall prepare Management Plans for certain environmental topic areas for inclusion within or accompanying the detailed CEMP post consent which will include:

- Bentonite Breakout Management Plan
- Construction Traffic Management Plans
- Construction Worker Travel Plans
- Dust Management Plan
- Emergency Management Plan
- Materials Management Plan
- Pollution Prevention Management Plan
- Site Waste Management Plan
- Soils Resource Management Plan
- Temporary Construction Drainage Plan
- Voids Treatment Protocol.
- Flood Risk Emergency Plan
- Plan to deal with unforeseen contamination
- Risk Assessment Method Statement (RAMS)
- Water Monitoring Plan

6.2 Contractors' method statements

6.2.1 The contractor, once appointed and once consent has been granted, shall prepare Environmental Method Statements for environmental topic areas at detailed design (for example, site clearance) for construction, as required. Commitments to produce specific method statements are included in the REAC, Table 5-2.

List of abbreviations

6.2.2 Table 6-1 provides definitions of technical terms and abbreviations used in this Outline CEMP.

Table 6-1 Abbreviations

Glossary term	Description
AIA	Arboricultural Impact Assessment
CEMP	Construction Environmental Management Plan
COSHH	Control of Substances Hazardous to Health
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
DMP	Dust Management Plan
DPF	Diesel Particulate Filters
EA	Environment Agency
EIA	Environmental Impact Assessment
ECow	Ecological Clerk of Works
EMS	Environmental Management System
ES	Environment Statement
HCC	Hampshire County Council
HLPS	High Lift Pumping Station
INNS	Invasive Non-Native Species
m	metres
MI/d	Million litres per day
mph	Miles per hour
NRMM	Non-Road Mobile Machinery
NVSR	Noise and Vibration Sensitive Receptors
PEI	Preliminary Environmental Information
PM ₁₀	Particulate Matter 10
PRoW	Public Rights of Way
QSMS	Quality and Safety Management Systems
RAMS	Risk Assessment and Method Statement
REAC	Register of Environmental Actions and Commitments
RPA	Root Protection Area
SNRHW	Stable Non-Reactive Hazardous Waste
SPZ1	Source Protection Zone 1

Hampshire Water Transfer and Water Recycling Project
Outline Construction Environmental Management Plan

Glossary term	Description
SWMP	Site Waste Management Plan
UXO	Unexploded Ordnance
WRP	Water Recycling Plant
WSW	Water Supply Works
WTW	Wastewater Treatment Works

References

- [1] South Downs National Park's Authority, "Dark-Skies-Technical-Advice-Note," 2018. [Online]. Available: <https://www.southdowns.gov.uk/wp-content/uploads/2018/04/TLL-10-SDNPA-Dark-Skies-Technical-Advice-Note-2018.pdf>.
- [2] Environment Agency, "Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention," May 2001. [Online]. Available: <https://webarchive.nationalarchives.gov.uk/ukgwa/20140329082415/http://cdn.environment-agency.gov.uk/scho0501bitt-e-e.pdf>.



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The logo graphic for Southern Water, featuring three stylized, horizontal wavy lines that resemble water waves.

F.11 Equality Impact Assessment

Hampshire Water Transfer & Water Recycling Project Equality Impact Assessment

VOLUME NUMBER: -

PLANNING INSPECTORATE NUMBER: WA010002

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Water** 

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1 Executive summary

1.1 Introduction to the Proposed Development

- 1.1.1 The Hampshire Water Transfer and Water Recycling Project (the ‘Proposed Development’) is a drought resilience scheme comprising a combination of both water transfer and water recycling technology that during drought¹ conditions would play a major role in making up any shortfall in water supply across the Hampshire supply area.
- 1.1.2 The Proposed Development would use an advanced treatment process to turn treated wastewater² into purified recycled water³ at a proposed Water Recycling Plant (WRP) to be located south of Havant in the vicinity of Budds Farm Wastewater Treatment Works (WTW). The recycled water would then be transferred via a pipeline to Havant Thicket Reservoir. This would supplement the source water⁴ proposed to be stored in the reservoir by Portsmouth Water. A proposed Underground Pipeline would be constructed to transfer source water from the Havant Thicket Reservoir to the Otterbourne Water Supply Works (WSW), approximately 40 kilometres to the north-west. Here it would be treated to strict drinking water standards ready for supply to homes and businesses. A detailed description of the Proposed Development is contained in Preliminary Environmental Information (PEI) Report Chapter 17 Description of the Proposed Development, Volume I, and summarised in section 4 of this report.

1.2 Introduction to the Equality Impact Assessment

- 1.2.1 This Equality Impact Assessment (EqIA) assesses the potential effects of the construction, operation and decommissioning of the Proposed Development for people who share protected characteristics, as defined in the Equality Act 2010 (‘Equality Act’) [1]. These are: age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation.
- 1.2.2 Under the Equality Act, all public sector bodies, and those who exercise public functions, are subject to the Public Sector Equality Duty (PSED), which requires that they have ‘due regard’ to the need to eliminate unlawful discrimination, harassment and victimisation; advance equality of opportunity; and foster good relations between people who share a protected characteristic and those who do not. Undertaking an EqIA enables us to check, report and therefore demonstrate

¹ Naturally occurring events and are typically characterised by a prolonged period of abnormally low rainfall, leading to a shortage of water. Droughts can be of differing lengths and intensities, for instance a short event caused by a hot, dry summer, or a drought over several years where persistent low rainfall over the winter can seriously affect groundwater and river sources.

² Wastewater is 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. Treated wastewater has been treated to strict regulatory standards and is typically released to rivers or the sea.

³ Purified water that has been produced by taking treated wastewater (see above) and removing remaining impurities using advanced treatment techniques.

⁴ 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.

that we are fulfilling the PSED, and provides a record of how 'due regard' to the aims of the PSED have been shown.

1.2.3 The EqIA is being undertaken alongside the Environmental Impact Assessment (EIA) but does not form part of the Preliminary Environmental Information (PEI) Report. It draws on evidence presented in the PEI Report but does not seek to assign significance to equality effects. Instead, it is a qualitative assessment of any potential identified disproportionate and differential effects of the construction, operation and decommissioning of the Proposed Development for protected characteristic groups. These are defined as follows:

- **Disproportionate** effects arise where an impact is likely to have a proportionately greater effect on a protected characteristic group than other members of the general population.
- **Differential** effects arise where members of a protected characteristic group are likely to experience the impacts of a proposed project differently because of a particular need or sensitivity.

1.2.4 This version of the EqIA Report has been produced to support the Summer 2024 Consultation for the Proposed Development. The EqIA is an ongoing assessment and an updated version of the EqIA Report will be published to support the application for a Development Consent Order (DCO) for the Proposed Development.

1.3 Approach and methodology

1.3.1 The EqIA has considered the potential for disproportionate and differential effects to arise from the construction, operation and decommissioning of the Proposed Development. Topics considered as part of the assessment include:

- Employment and training opportunities
- Impacts on residential properties
- Impacts on community facilities and land used by protected characteristic groups
- Noise, visual or air quality impacts on residential communities or community land and facilities
- Transport impacts including severance and impacts on public transport, Public Rights of Way (PRoW) and pedestrian routes
- Safety and security.

1.3.2 In most cases, likely disproportionate or differential effects have been considered for a study area comprising the draft Order Limits for the Proposed Development plus a 500m buffer. This reflects the study areas used for relevant environmental assessments in the PEI Report, including PEI Report Chapter 12 Land use and agriculture, Volume I, and PEI Report Chapter 17 Socio-economics, tourism and health, Volume I. In relation to employment and training, likely disproportionate or differential effects have been assessed at local planning authority and sub-regional level, again reflecting the approach taken for PEI Report Chapter 17 Socio-economics, tourism and health, Volume I.

1.3.3 The EqIA has drawn on likely significant effects identified in relevant chapters of the PEI Report, including PEI Report Chapter 6 Air quality and odour, Volume I,

PEI Report Chapter 12 Land use and agriculture, Volume I, PEI Report Chapter 13 Landscape and visual, Volume I, PEI Report Chapter 15 Noise and vibration, Volume I, PEI Report Chapter 17 Socio-economics, tourism and health, Volume I, and PEI Report Chapter 18, Traffic and transport, Volume I. Effects on health reported in PEI Report Chapter 17 Socio-economics, tourism and health, Volume I, are not considered in the EqlA to avoid double counting of noise, air quality and transport impacts.

- 1.3.4 Effects from decommissioning of the Proposed Development are considered to be less than or no greater than those identified during the construction phase and are therefore assessed as construction effects as a likely worst case scenario.

1.4 Baseline and evidence review

- 1.4.1 The EqlA has drawn on baseline data presented in PEI Report Chapter 12 Land use and agriculture (section 12.7), Volume I and PEI Report Chapter 17 Socio-economics, tourism and health (section 17.7), Volume I. This includes national datasets such as Office for National Statistics (ONS) Census 2021, ONS Annual Population Survey, the Index of Multiple Deprivation, and Office for Health Improvement and Disparities (OHID) Public Health Profiles, as well as local sources such as the Hampshire Joint Strategic Needs Assessment (JSNA).
- 1.4.2 The EqlA also provides a summary of ONS Census 2021 baseline data relating to the representation of protected characteristic groups within the population of the study area. As far as possible, this data is presented at ward level. Where data is not available at ward level (for example in relation to gender identity and sexual orientation), it is instead presented for the local planning authorities within the study area.
- 1.4.3 The baseline also includes the locations of community facilities that may be used by protected characteristic groups within the study area, including schools, healthcare facilities, religious buildings and open space. These are presented in EqlA Figure 5.1 Community facilities. This information will be reviewed and updated for the EqlA Report to support the DCO application, drawing on information gathered through the stakeholder engagement and consultation process.
- 1.4.4 Alongside the baseline, an evidence review has been conducted to understand the potential sensitivities of protected characteristic groups in relation to the construction and operation of linear infrastructure. This has drawn on research and data published by relevant organisations such as the Equality and Human Rights Commission (EHRC), and the findings of EqlAs undertaken for other comparable projects including, for example, the EqlA for the Anglian Water Cambridge Wastewater Treatment Plant Relocation Project.

1.5 Assessment findings

- 1.5.1 The assessment has identified the following potential equality effects that could arise during the construction of the Proposed Development:
- **Disproportionate and differential** effects for young people as a result of new job and training opportunities during construction.

- **Differential** effects for young people, disabled people, women and people from Black and Minority Ethnic backgrounds as a result of new job and training opportunities during construction.
- **Disproportionate and differential** effects for children and young people, and differential effects for older people and disabled people as a result of the temporary loss of land at Hooks Mead Recreation Ground (proposed Underground Pipelines between the proposed WRP and Havant Thicket Reservoir only).
- **Differential** effects for disabled people as a result of temporary disruption to access at Albany Farm Care Home during construction.
- **Disproportionate** effects for children, young people, older people, disabled people and people from Black and Minority Ethnic groups using bus routes affected by temporary delays during construction.
- **Disproportionate** effects for women who are horse riders using routes affected by temporary delays for horse riders during construction.
- **Differential** effects for disabled people who are horse riders using routes affected by temporary delays for horse riders during construction.
- **Differential** effects for children, older people, disabled people, pregnant women and mothers of babies under six months using routes affected by temporary delays and disruption for pedestrians during construction.
- **Differential** effects for children, older people and disabled people living in properties affected by temporary construction noise.
- **Differential** effects for children, older people, disabled people and women, including pregnant women and mothers of babies under six months, as a result of the risks, or perceived risks, associated with construction sites and changes in the pedestrian environment.

1.5.2 The assessment has not identified any potential disproportionate or differential equality effects associated with the operation of the Proposed Development.

1.6 Actions and next steps

1.6.1 The assessment of equality effects identifies actions to:

- Reduce or remove potential adverse effects for groups with protected characteristics.
- Support the delivery of the potential positive equality effects associated with employment and training opportunities.

1.6.2 At this stage, identified actions include further engagement with stakeholders to understand the potential for effects and develop appropriate measures to address these; developing measures for inclusion in project documentation such as the Outline Construction Environmental Management Plan (CEMP) to support safety around construction sites and to reduce environmental impacts from construction; and developing measures for inclusion in project documentation such as the Outline Skills and Employment Plan (SEP) for the Proposed Development to support access to employment and training for protected characteristic groups. These actions will be kept under review and developed into an Action Plan for inclusion in the EqIA Report published with the DCO application, drawing on

information gathered through the stakeholder engagement and consultation process.

- 1.6.3 The PSED is an ongoing duty, and the findings of the EqIA will continue to inform the development of the project and its outcomes, which will seek to avoid adverse impacts on protected characteristic groups in the first instance. Next steps for the EqIA are to continue updating the baseline, drawing on engagement and consultation findings; to continue reviewing EIA findings and outputs to identify potential equality effects; to continue engaging with stakeholders; and to review identified actions and develop these into an Action Plan for the EqIA to be published with the DCO application, including developing measures for inclusion in project documentation such as the Outline SEP and Outline CEMP.

2 Introduction

2.1 Introduction to the Proposed Development

- 2.1.1 The Hampshire Water Transfer and Water Recycling Project (the ‘Proposed Development’) is a drought resilience scheme comprising a combination of both water transfer and water recycling technology that during drought⁵ conditions would play a major role in making up any shortfall in water supply across the Hampshire supply area.
- 2.1.2 The Proposed Development would use an advanced treatment process to turn treated wastewater⁶ into purified recycled water⁷ at a proposed Water Recycling Plant (WRP) to be located south of Havant in the vicinity of Budds Farm Wastewater Treatment Works (WTW). The recycled water would then be transferred via a proposed Pipeline to the planned Havant Thicket Reservoir. This would supplement the raw water proposed to be stored in the reservoir by Portsmouth Water. Another proposed Underground Pipeline would be constructed to transfer source water⁸ from the planned reservoir to the Otterbourne Water Supply Works (WSW), approximately 40 kilometres to the north-west. Here it would be treated to strict drinking water standards ready for supply to homes and businesses. A detailed description of the Proposed Development is contained in Preliminary Environmental Information (PEI) Report Chapter 17 Description of the Proposed Development, Volume I, and summarised in section 4 of this report.

2.2 Purpose of the EqlA Report

- 2.2.1 An Equality Impact Assessment (EqlA) is a systematic assessment of the potential effects of a project or policy on groups of people who share protected characteristics, as defined in the Equality Act 2010 [1] (‘Equality Act’). It considers whether protected characteristic groups could be affected disproportionately or differentially by a project or policy. The assessment also informs the identification of actions to address any adverse effects and to support the delivery of any beneficial effects. An EqlA helps to demonstrate that an organisation is meeting its obligations under the Equality Act, and provides evidence that equality issues have been taken into account in decision making and given effect.
- 2.2.2 This EqlA Report has been produced to support the Summer 2024 Consultation on the Proposed Development. It presents the initial findings of the assessment of the potential disproportionate and differential equality effects for protected characteristic groups that could arise as a result of the construction, operation and

⁵ Naturally occurring events and are typically characterised by a prolonged period of abnormally low rainfall, leading to a shortage of water. Droughts can be of differing lengths and intensities, for instance a short event caused by a hot, dry summer, or a drought over several years where persistent low rainfall over the winter can seriously affect groundwater and river sources.

⁶ Wastewater is 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. Treated wastewater has been treated to strict regulatory standards and is typically released to rivers or the sea.

⁷ Purified water that has been produced by taking treated wastewater (see above) and removing remaining impurities using advanced treatment techniques.

⁸ 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.

decommissioning of the Proposed Development. It identifies additional measures that could be considered to reduce any adverse effects and to support the delivery of beneficial effects.

- 2.2.3 Feedback on this report will be analysed and used to inform an updated EqIA Report, which will be published alongside the Environmental Statement (ES) as part of the Development Consent Order (DCO) application for the Proposed Development. The updated EqIA Report will include an Action Plan which will set out the actions that have been identified through the assessment process to reduce or remove adverse effects for protected characteristic groups, and to support the delivery of positive effects.

2.3 Relationship with the EIA

- 2.3.1 The EqIA has been undertaken alongside the Environmental Impact Assessment (EIA) and has drawn on the findings of relevant environmental topics. These include:

- Preliminary Environmental Information (PEI) Report Chapter 6 Air quality and odour, Volume I
- PEI Report Chapter 12 Land use and agriculture, Volume I
- PEI Report Chapter 13 Landscape and visual, Volume I
- PEI Report Chapter 15 Noise and vibration, Volume I
- PEI Report Chapter 17 Socio-economics, tourism and health, Volume I
- PEI Report Chapter 18 Traffic and transport, Volume I

- 2.3.2 Additional information on the likely significant effects identified by these topics can be found in the relevant chapters of the PEI Report.

- 2.3.3 The EqIA has considered whether any of the likely significant effects identified by these topics have the potential to result in disproportionate or differential effects for protected characteristic groups, taking into account the relevant primary, secondary and tertiary mitigation identified in the PEI Report. By exception, it has also considered where non-significant effects identified in the PEI Report could have the potential to result in equality effects where it is known that there are protected characteristic groups with particular needs or sensitivities related to their protected characteristic/s that could be affected. Unlike the EIA, it does not seek to assess the significance of effects, but instead provides a qualitative assessment of the potential disproportionate or differential effects for protected characteristic groups.

Inputs into scheme development

- 2.3.4 Environmental specialists have inputted into the scheme development process through options appraisals and workshops which have sought to identify key constraints and sensitivities in particular locations and refine the design of the Proposed Development. This has included identifying sensitive receptors such as community facilities including schools, open space, healthcare facilities and religious buildings within the study area, and considering the potential impacts that could arise for users of these facilities as a result of the construction and operation of the Proposed Development in these areas.

3 Policy context

3.1 Introduction

3.1.1 This section provides an overview of the policy context that has informed the EqIA. This includes the Equality Act and the National Policy Statement for Water Resources Infrastructure (NPSWRI) [2], as well as relevant local and regional planning and equality policies.

3.2 The Equality Act 2010 and the Public Sector Equality Duty

3.2.1 Under the Equality Act, all public sector bodies, and those who exercise public functions, are subject to the Public Sector Equality Duty (PSED) [1]. The PSED requires that these bodies, in the exercise of their functions, have 'due regard' to the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Equality Act.
- Advance equality of opportunity between people who share a protected characteristic and those who do not.
- Foster good relations between people who share a protected characteristic and those who do not [3].

3.2.2 The PSED does not specify that public bodies should undertake EqIAs, but doing so helps to provide evidence that a body has shown due regard to its duties under the PSED.

Protected characteristics

3.2.3 There are nine protected characteristics defined in the Equality Act which are relevant to the PSED. These are:

- Age
- Disability
- Gender reassignment
- Marriage and civil partnership
- Pregnancy and maternity
- Race
- Religion or belief
- Sex
- Sexual orientation

3.2.4 In relation to the protected characteristic of marriage and civil partnership, only the first aim of the PSED applies.

3.2.5 Socio-economic inequality is not a protected characteristic in England and is therefore not within the scope of this assessment. The effects of the Proposed

Development on socio-economics and on health are assessed in PEI Report Chapter 17 Socio-economics, tourism and health (section 17.8), Volume I.

‘Due regard’

- 3.2.6 The concept of having ‘due regard’ has been tested in case law, and a set of principles known as the Brown Principles have been accepted. In summary, the Brown Principles mean that:
- Decision makers should be aware of their duty to have due regard to the identified needs.
 - Due regard is fulfilled before and at a time that a policy could affect protected characteristic groups, not just at the time a decision is taken.
 - The duty should be exercised in substance, with rigour and an open mind, in such a way that it influences the final decision.
 - The duty cannot be delegated and remains the responsibility of the body subject to the duty.
 - The duty is ongoing.
 - Records should be kept to demonstrate how the duty has been considered [4].
- 3.2.7 Accordingly, the EqIA should be updated throughout the Proposed Development lifecycle to show how equality considerations have been taken into account, and how any identified actions have been sought to be addressed.

3.3 National policy context

- 3.3.1 The Planning Act 2008 [5] is the primary legislation relating to the decision-making process for Nationally Significant Infrastructure Projects (NSIPs) and projects of national significance for which development consent is required. It provides the legal framework for applying for, examining, and determining Development Consent Order (DCO) applications.
- 3.3.2 The primary basis for deciding whether to grant a DCO is the NPSWRI. This sets out policies to guide how DCO applications should be decided and how the effects of water resources infrastructure are considered.
- 3.3.3 Section 4.13 of the NPSWRI is concerned with socio-economic impacts of water resources infrastructure and how these should be assessed and mitigated. Paragraph 4.13.4 states that:
- “Applicants should describe the existing socio-economic conditions in the areas surrounding the proposed development, following appropriate consultation with those most affected, and should refer to how the development’s socio-economic impacts correlate with local planning policies. The applicant should also describe the existing demographics within the area and assess how the development could affect any equalities groups⁹. Applicants should assess any likely significant positive and negative socio-economic or equalities impacts as part of an Environmental Statement.”*
- 3.3.4 In relation to decision making, Paragraph 4.13.11 states that:

⁹ Equalities groups means those groups with ‘protected characteristics’ as defined in the Equality Act 2010

“The decision maker should also consider the equality impacts, whether measures put forward by the applicant to mitigate any adverse equalities impacts caused by the development are acceptable or whether other mitigations should be pursued.”

3.3.5 PEI Report Chapter 17 Socio-economics, tourism and health (section 17.7), Volume I, sets out a socio-economic baseline comprising a community profile, economic profile and health profile for wards and local planning authorities within the study area for the Proposed Development, and a review of relevant local planning policies. The chapter assesses the likely significant positive and negative socio-economic effects of the Proposed Development, and includes consideration of mitigation.

3.3.6 Further demographic information relating to the representation of protected characteristic groups is set out in section 6 of this EqlA Report. An assessment of the likely positive (‘beneficial’) and negative (‘adverse’) equality effects arising from the Proposed Development is provided in section 7. The assessment recommends any further actions that could be considered to address adverse effects and support the delivery of beneficial effects.

3.4 Local policy context

3.4.1 A review of local planning policy has been undertaken to help identify key equalities considerations and priorities in each of the local planning authorities within the study area for the EqlA. Table 3-1 summarises local planning policies considered relevant to the EqlA for the Proposed Development.

Table 3-1 List of relevant local planning policy

Local planning authority	Relevant local policy and equality priorities
East Hampshire District Council (EHDC)	<p><u>East Hampshire District Local Plan: Joint Core Strategy (2014) [6]</u> The East Hampshire District Local Plan: Joint Core Strategy identifies the following key issues and challenges relevant to protected characteristic groups:</p> <ul style="list-style-type: none"> • An ageing population that can impact on the local workforce. • Difficulty in retaining skilled and talented young people. • Low skill levels and a shortage of vocational training. • High levels of out commuting, and a net loss of jobs across all sectors. <p>Relevant policies set out in the Joint Core Strategy are:</p> <ul style="list-style-type: none"> • CP5 Employment and Workforce Skills. • CP15 Gypsies, Travellers and Travelling Showpeople.CP16 Protection and Provision of Social Infrastructure. • CP17 Protection of Open Space, Sport and Recreation and Built Facilities.
Eastleigh Borough Council (EBC)	<p><u>Eastleigh Borough Local Plan 2016-2036 (Adopted April 2022) [7]</u> The Eastleigh Local Plan identifies the following key issues and challenges relevant to protected characteristic groups:</p>

Local planning authority	Relevant local policy and equality priorities
	<ul style="list-style-type: none"> • Low level of skills and therefore mainly low skill jobs available in the area. • An ageing population that implicates local housing, workforce and service needs. • Skills drainage – higher amounts of out commuting, net exporter of professional and technical residents. <p>Relevant local policies set out in the local plan are:</p> <ul style="list-style-type: none"> • S1 Delivering sustainable development • DM16 Workforce training requirements and new jobs • DM31 Gypsies, Travellers and Travelling Showpeople • DM32 Protection of recreation and open space facilities • DM36 Community, leisure and cultural facilities
<p>Fareham Borough Council (FBC)</p>	<p><u>Fareham Local Plan 2037 (2023) [8]</u></p> <p>The Fareham Local Plan identifies the following key issues and challenges relevant to protected characteristic groups:</p> <ul style="list-style-type: none"> • An ageing population that has impacts the housing needs of the borough. • 16% of the resident population have a long-term health problem or disability. • Overcrowding and a lack of sufficient space for the needs of children and young people. <p>Relevant local policies set out in the local plan are:</p> <ul style="list-style-type: none"> • NE10 Protection and Provision of Open Space • HP11: Gypsies, Travellers and Travelling Showpeople
<p>Havant Borough Council (HBC)</p>	<p><u>Havant Borough Core Strategy (2011) [9]</u></p> <p>The Havant Borough Core Strategy identifies the following key issues and challenges relevant to protected characteristic groups:</p> <ul style="list-style-type: none"> • Deprivation impacting young people and children. • High levels of young people aged 16-18 not in education, employment or training. • Local skills shortage in manufacturing, low level of appropriate skills in residents for the key employment roles/sectors in the borough. • High levels of in commuting, filling the high skill job roles available in the borough. • High worklessness in the area. • Lack of affordable or accessible childcare significantly impacting women and single parents capacity to work. • Low levels of vocational opportunities. <p>Relevant local policies set out in the core plan are:</p> <ul style="list-style-type: none"> • CS1 Health and Well-being

Local planning authority	Relevant local policy and equality priorities
	<ul style="list-style-type: none"> • CS3 Skills and Employability • CS7 Community Support and Inclusion • CS16 High Quality Design • CS20 Transport and Access Strategy. DM1 Recreation and Open Space • CS10 Gypsies, Travellers and Travelling Showpeople
<p>Portsmouth City Council (PCC)</p>	<p><u>Portsmouth Plan (The Portsmouth Core Strategy) (2012) [10]</u> The Portsmouth Plan identifies the following key issues and challenges relevant to protected characteristic groups:</p> <ul style="list-style-type: none"> • Lack of accessible transport routes, high levels of congestion, which may impact disabled residents' mobility in the city. • High levels of in commuting, filling the high skill job roles available in the city. • Low level skills and vocational opportunities in local people. • Low level of educational opportunities for local young people. • High rates of unemployment. • An ageing population that can affect the workforce and the availability of housing. <p>Relevant local policies set out in the plan are:</p> <ul style="list-style-type: none"> • PCS14 A Healthy City • PCS22 Gypsy, Traveller and Travelling Showpeople Accommodation <p><u>Portsmouth Local Plan 2038 'Regulation 18' Consultation Document Draft for consultation 2021 [11]</u></p> <ul style="list-style-type: none"> • Policy H4 Gypsies, Travellers and Travelling Showpeople • Policy C1 Community and Leisure Facilities • Policy C2 Open Spaces and Outdoor Recreation
<p>Winchester City Council (WCC)</p>	<p><u>Winchester District Local Plan Part 1 Joint Core Strategy (Adopted March 2013) [12]</u> The Winchester District Local Plan Part 1 Joint Core Strategy identifies the following key issues and challenges relevant to protected characteristic groups:</p> <ul style="list-style-type: none"> • An ageing population that can affect the workforce and the availability of housing. • Significant levels of in and out commuting. <p>Relevant local policies set out in the core plan are:</p> <ul style="list-style-type: none"> • CP7 Open Space, Sport and Recreation • CP5 Sites for Gypsies, Travellers and Travelling Showpeople
<p>SDNPA</p>	<p><u>South Downs Local Plan (Adopted July 2019) [13]</u> The South Downs Local Plan identifies the following key issues and challenges relevant to protected characteristic groups:</p>

Local planning authority	Relevant local policy and equality priorities
	<ul style="list-style-type: none"> • Narrow road and pathway layout which may limit disabled persons accessibility. • An ageing population that can impact the workforce. <p>Relevant local policies set out in the core plan are:</p> <ul style="list-style-type: none"> • SD33 Gypsies, Travellers and Travelling Showpeople • SD34 Sustaining the Local Economy • SD46 Provision and Protection of Open Space, Sport and Recreational Facilities and Burial Grounds/Cemeteries

3.4.2 Table 3-2 summarises local planning authority equality and social value policies and strategies that are considered relevant to the EqlA.

Table 3-2 List of local planning authority equality and social value strategies

Local planning authority	Relevant local strategies
East Hampshire District Council (EHDC)	<p><u>East Hampshire District Corporate Equality Objectives 2021-25</u> [14]</p> <p>EHDC has the following strategic equality objectives:</p> <ul style="list-style-type: none"> • To pay due regard to PSED through any policy or service change. • To monitor diversity of staff and customers to understand what types of people are and are not using council services or being employed by the council and act where necessary. • Provide staff with equality and diversity training. • Create accessible online services and documentation. <p><u>East Hampshire District Corporate Strategy 2020-2024</u> [15]</p> <p>EHDC state in their long-term strategy that they expect social value to be built into any bids from local community groups in order to receive financial support from the council.</p>
EBC	<p><u>Eastleigh Borough Council Equalities Strategy and Action Plan 2022-2025</u> [16]</p> <p>EBC have outlined the following objectives in their Equalities Strategy and Action Plan:</p> <ul style="list-style-type: none"> • Carry out duties under the Equality Act. • Engage with communities to participate in the determination of priorities and decision making. • Recognise and value the diversity of the workforce. • Embed an inclusive mindset across the Council. • Ensure council services are accessible. <p><u>Eastleigh Borough Council Social Value Employment and Skills Toolkit</u> [17]</p>

Local planning authority	Relevant local strategies
	<p>The Social_Value: Employment and Skills Toolkit is a new tool that helps to enable discussions between EBC and its partner organisations regarding support for local employment and skills initiatives.</p> <p>The toolkit contains guidance for how organisations contracted by the Council can create 'added value' from the services/products that the Council contracts.</p>
FBC	<p><u>Fareham Borough Council Equality Objectives 2022-2026 [18]</u></p> <p>FBC have adopted the following set of equality objectives up to 2026:</p> <ul style="list-style-type: none"> • Improve the understanding of Fareham's community within the Council, which will enabling the Council to meaningfully engage in decision making. • Celebrate diversity and promote inclusion across the community, ensuring FBC services are accessible to all members of the community. • Embed an inclusive mindset across FBC.
HBC	<p><u>Havant Borough Council Corporate Equality Objectives 2021-2025 [19]</u></p> <p>HBC outlines the following set of strategic equality objectives that they continue to aim to achieve by 2025:</p> <ul style="list-style-type: none"> • To pay due regard to PSED through any policy or service change. • To monitor diversity of staff and customers, where appropriate, to understand what types of people are and are not using our services or being employed by us and act where necessary. • Provide staff with equality and diversity training. • Create accessible online services and documentation which can be used by as many people as possible. Alongside the accessibility regulations for local government.
PCC	<p><u>Portsmouth City Council Equality and Diversity Strategy 2019-2022 [20]</u></p> <p>PCC set out their approach to Equality and Diversity Strategy through the following equality objectives that underpin their five key priority areas:</p> <ul style="list-style-type: none"> • Promoting fairness and diversity by tackling inequalities, disadvantage, and discrimination. • Leaderships and partnerships. • Employment and training. • Service delivery and access – Ensure access, information and advice is available/accessible to all. • Promoting community and the voluntary sector.

Local planning authority	Relevant local strategies
	<p><u>Portsmouth City Council Social Value Policy [21]</u></p> <p>PCC define Social Value as the lasting and positive impact that we create through the way in which we act to shape a resilient future, for our local and regional communities, businesses and environment. PCC Social Value policy principles to enable the value are outlined:</p> <ul style="list-style-type: none"> • Consult – Consult with key stakeholders through regular engagement to uphold a ‘needs led’ approach to the development of social value. • Design – Design co production of services that are underpinned by the social value policy, city vision and legislation. • Develop – Develop an ecosystem that is value driven, with transparent and robust systems and processes. • Manage – Manage social value will become ‘business as usual’ as we effectively manage the way in which we deliver value for money. • Embed – Embed social value within the culture of our council, local businesses, supply chain, partners, and residents. • Improve – Improve our social value through effective measurement that enables us to define what good looks like and push the boundaries of delivering value for Portsmouth. <p>PCC Social Value Policy principles are outlined below, these are some ways that the policy will support the council to fulfil their Social Value Definition:</p> <ul style="list-style-type: none"> • Social Impact. Improving the physical and mental well-being of local people, strengthening community spirit and collaboration to reduce poverty and social isolation, supporting young people, disadvantaged groups and address inequality, by raising aspirations of our future generations. • Economic Impact. Improving opportunities for our local Subject Matter Experts, greater inclusion of the voluntary, community and social enterprise (VSCE) and social enterprise sectors within our supply chains, driving down unemployment, upskilling the future workforce and addressing skills gaps through apprenticeships and similar schemes. Driving up inward investment and harnessing the Green Revolution to ‘build back better’. • Sustainability Impact. Working towards our 2030 Carbon Net Zero goal, improving our air quality, and enhancing our biodiversity through net gains. Evaluating our approach to placemaking and taking care of our heritage as a ‘Port City.’ Ensuring that communities and businesses are educated and empowered about the vital roles they play in delivering a sustainable future, one which builds back greener.

Local planning authority	Relevant local strategies
WCC	<p><u>Winchester City Council general approach to promoting Equality Diversity and Inclusion in their community [22]</u></p> <ul style="list-style-type: none"> • Committed to developing positive policies to facilitate the employment of protected characteristic groups and to the elimination of discrimination on the grounds of being or becoming a transsexual person, race or ethnic origin, religion, sexual orientation, age, sex, marital status and being pregnant or on maternity leave. • By creating policies aligned with promoting Equality, Diversity and Inclusion WCC will encourage organisations who are financially supported or contracted to deliver council services. • Undertaking EqlAs in support of all decision making to aid WCC in understanding how policies and services will affect Winchester District residents. • Publishing a Gender Pay Gap Report periodically to capture if any equal pay issues exist but also if pay inequalities resulting from the variances in jobs performed by men and women. <p><u>Winchester City Council Social Value [23]</u></p> <p>The Procurement Team at WCC aims to integrate social value into its commissions, generating benefits for society, the local community, and the environment. This will involve incorporating specified weightings from the Procurement Strategy into relevant procurement activities. As the council procures diverse goods and services, the definition of social value will vary for each commission, with details outlined in the respective tender documentation.</p>

3.5 Guidance

3.5.1 In addition to the policy documents outlined above, the EqlA has drawn on technical guidance published by the Equality and Human Rights Commission (EHRC), including Technical Guidance on the PSED: England [4]. It also takes account of examples of best practice in EqlAs for comparable linear infrastructure projects, such as High Speed Two Rail, major highways schemes, and other water sector projects such as the EqlA for the Anglian Water Cambridge Wastewater Treatment Plant Relocation Project; EqlAs produced by the local planning authorities within the study area; and good practice guidance documents produced by public bodies in the UK and Northern Ireland.

4 Description of the Proposed Development

4.1 Introduction

4.1.1 This section provides an overview of the key elements of the Proposed Development, relevant to the assessment of potential equality effects. EqIA Figure 3.1 Key elements of the Proposed Development shows the draft Order Limits, proposed Above Ground Plant (AGP), and proposed locations of construction compounds. A full description of the Proposed Development can be found in PEI Report Chapter 3 Description of the Proposed Development, Volume I.

4.2 Key components of the Proposed Development

4.2.1 The key components of the Proposed Development comprise the following:

- Proposed WRP and High Level Pumping Station (HLPS)
- Proposed Underground Pipelines between Budds Farm WTW and the proposed WRP
- Proposed Pipelines between the proposed WRP and Havant Thicket Reservoir
- Proposed Underground Pipeline between Havant Thicket Reservoir and Otterbourne WSW
- Proposed Above Ground Plant
- Use of the Havant Thicket Reservoir for the storage of recycled water
- Use of the existing Eastney Long Sea Outfall for the release of reject water from the proposed Water Recycling Plant
- Other Associated Development

4.2.2 The proposed WRP would be located at a site 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. In order to move water along the pipeline a HLPS is required which would be located at the proposed WRP site.

4.2.3 Further AGP would be required to support the transfer of water to overcome the topography of the route. AGP are anticipated to include proposed Intermediate Pumping Stations (IPS) and proposed Break Pressure Tanks located along the section of the pipeline between Havant Thicket Reservoir and Otterbourne WSW.

4.2.4 More detail of each of the key parts of the Proposed Development can be found in PEI Report Chapter 3 Description of the Proposed Development, Volume I.

4.3 Approach to construction

4.3.1 The Proposed Development is expected to take four years to construct. Generally, an open-cut trench construction method would be used to install the underground sections of the pipeline. The typical working width would be 40m, providing space for construction vehicle movement along haul roads, construction working areas, pipe storage areas, pipeline trench and soil storage areas. Other techniques including tunnelling would also be used where appropriate, for example, in environmentally sensitive areas.

- 4.3.2 Construction compounds are anticipated to be temporarily required to support construction of the key components of the Proposed Development, and located at intervals along the pipeline. Construction would also be supported by the use of water storage lagoons.
- 4.3.3 Construction impacts on the environment and local communities would be managed, as far reasonably practicable, through the implementation of the Outline Construction Environmental Management Plan (CEMP). The Outline CEMP will set out best practice construction management techniques and measures to avoid or reduce environmental effects. A preliminary Outline CEMP is provided with the Summer 2024 Consultation documentation.
- 4.3.4 Public rights of way (PRoW) may be temporarily closed or diverted to facilitate the construction of the Proposed Development. This would be done in accordance with a Rights of Way Management Plan which will be submitted with the DCO application. Various construction traffic management plans would also be implemented to manage impacts during construction which will also be submitted with the DCO application.
- 4.3.5 More detail of the approach to construction can be found in PEI Report Chapter 3 Description of the Proposed Development, Volume I.

4.4 Operation and maintenance

- 4.4.1 The Proposed Development would operate at its full capacity during drought conditions. Outside of drought conditions, the Proposed Development would continue operating a minimum flow to make sure infrastructure is in regular working use.
- 4.4.2 The proposed WRP and proposed AGP would undergo regular routine monitoring and maintenance including recording information, testing and replacement of equipment. It is anticipated that some land along the pipeline (both above-ground and underground sections) would be required to allow access for maintenance.
- 4.4.3 More detail of the approach to operation and maintenance can be found in PEI Report Chapter 3 Description of the Proposed Development, Volume I.

4.5 Decommissioning

- 4.5.1 The Proposed Development is assumed to have a life cycle of a minimum of 100 years, however, the operational life could be longer than this.
- 4.5.2 During the decommissioning phase, it is assumed that above ground assets would be removed. It is assumed that buried pipeline infrastructure would be left in place and once drained would be capped, depending on industry best practice at the time.
- 4.5.3 An Outline Decommissioning Environmental Management Plan, which will set out the general principles to be followed in the decommissioning of the Proposed Development, will be submitted as part of the DCO application.

5 EqlA approach and methodology

5.1 Scope of the assessment

Study area

- 5.1.1 The study area for the assessment draws on the study areas identified in relevant PEI Report chapters, notably PEI Report Chapter 17 Socio-economics, tourism and health (section 17.5), Volume I, and PEI Report Chapter 12 Land use and agriculture (section 12.5), Volume I. This means that the study area covers the local planning authority wards within the draft Order Limits plus a 500m buffer, see EqlA Figure 4.1 Study area.
- 5.1.2 The only exception to this is potential effects arising as a result of employment and training opportunities associated with the Proposed Development. In this case, the study area is at regional and local planning authority level. The Proposed Development intersects with the following local planning authority areas:
- Hampshire County Council (HCC)
 - East Hampshire District Council (EHDC)
 - Eastleigh Borough Council (EBC)
 - Fareham Borough Council (FBC)
 - Havant Borough Council (HBC)
 - Portsmouth City Council (PCC)
 - Winchester City Council (WCC)
 - South Downs National Park (SDNP)
- 5.1.3 The EqlA is a community-based assessment, and reports equality effects for groups of people who share protected characteristics, rather than for individuals or individual households.

Effects for consideration

- 5.1.4 The EqlA considers the potential for protected characteristic groups to experience **disproportionate** or **differential** effects as a result of the construction, operation and decommissioning of the Proposed Development.
- **Disproportionate** effects arise where an impact has a proportionately greater effect on a protected characteristic group than other members of the general population.
 - **Differential** effects arise where members of a protected characteristic group experience the impacts of a proposed project differently because of a particular need or sensitivity.
- 5.1.5 The EqlA assesses whether protected characteristic groups could experience disproportionate or differential equality effects as a result of the likely significant effects of the Proposed Development identified in the PEI Report. By exception, it has also considered where non-significant effects identified in the PEI Report could have the potential to result in equality effects where it is known that there are protected characteristic groups with particular needs or sensitivities related to their

protected characteristic/s that could be affected. Table 5-1 sets out the categories of effects have been considered:

Table 5-1 Equality effects for consideration

Category of effect	Potential for differential or disproportionate effects during:		Rationale
	Construction / decommissioning	Operation	
Employment and training opportunities	Yes	Yes	The Proposed Development has the potential to create employment both during construction and once in operation. There may also be the potential for employment and training opportunities to create beneficial effects for protected characteristic groups, including young people.
Direct impacts on residential properties	Yes	No	It is not anticipated that the construction or decommissioning of the Proposed Development would require any demolition of existing residential properties, however there is the potential for impacts on access to residential properties during construction which could have differential effects for protected characteristic groups. The operation of the Proposed Development will not require any demolition or direct impacts on residential properties.
Direct impacts on community facilities and land used by protected characteristic groups	Yes	No	It is not anticipated that the construction or decommissioning of the Proposed Development would require any demolition of existing facilities, however there is the potential for impacts on access to community facilities and land during construction which could have differential effects for protected characteristic groups. The operation of the Proposed Development will not require any demolition or direct impacts on community facilities and land.
Noise impacts on residential	Yes	No	Noise impacts associated with construction activity could have

Category of effect	Potential for differential or disproportionate effects during:		Rationale
	Construction / decommissioning	Operation	
communities or community facilities used by protected characteristic groups			the potential for differential effects for protected characteristic groups who may be more sensitive to changes in the noise environment. PEI Report Chapter 15 Noise and vibration, Volume I, has not identified any significant noise effects arising from the operation of the Proposed Development, and so it is considered unlikely that there would be any differential or disproportionate effects for protected characteristic groups.
Visual impacts on residential communities or community facilities used by protected characteristic groups	Yes	No	Visual impacts associated with construction activity could have the potential for differential effects for protected characteristic groups who may be more sensitive to changes in the visual environment. PEI Report Chapter 13 Landscape and visual, Volume I, has not identified any significant visual effects for residents arising from the operation of the Proposed Development, and so it is considered unlikely that there would be any differential or disproportionate effects for protected characteristic groups.
Air quality impacts where residents may be more sensitive to changes due to their protected characteristics	Yes	No	Air quality impacts associated with construction activity could have the potential for differential effects for protected characteristic groups who may be more sensitive to poor air quality. Operational effects were scoped out from PEI Report Chapter 6 Air quality and odour, Volume I, and so it is considered unlikely that there would be any differential or disproportionate effects for protected characteristic groups.
Transport impacts	Yes	No	Disruption to transport routes or concerns about road safety

Category of effect	Potential for differential or disproportionate effects during:		Rationale
	Construction / decommissioning	Operation	
including severance, impacts on public transport, PRow and pedestrian routes			arising from construction activity and HGV traffic could affect the accessibility of local transport networks, with the potential for differential effects for protected characteristic groups. PEI Report Chapter 18 Traffic and transport, Volume I, has not identified any significant effects arising from the operation of the Proposed Development, and so it is considered unlikely that there would be any differential or disproportionate effects for protected characteristic groups.
Safety and security	Yes	No	Construction sites and activity can create safety risks with the potential for differential and disproportionate effects for protected characteristic groups, particularly children. It is assumed that all AGP sites will be secured and that the risk during operation would therefore be minimal.

5.1.6 The EqIA considers effects arising during construction, once the Proposed Development is in operation, and during the decommissioning phase. Effects from decommissioning of the Proposed Development are considered to be less than or no greater than those identified during the construction phase and are therefore assessed as construction effects as a likely worst case scenario.

5.1.7 As the PSED is an ongoing duty, the Applicant will continue to review the equality baseline and the potential for additional disproportionate or differential effects to arise during the construction, operation and decommissioning phases.

5.2 Methodology

5.2.1 The methodology to date for the EqIA has followed the following steps:

- Baseline
- Policy and evidence review
- Engagement with the Community EIA Working Group
- Identification of potential equality effects
- Review of EIA findings

- Assessment of equality effects and identification of actions for consideration
- Reporting

Baseline data collection

- 5.2.2 The EqIA presents ward level Office for National Statistics (ONS) Census 2021 data relating to the representation of protected characteristic groups in the study area, including age, disability, race and religion and belief. Where data is not available at ward level, for example in relation to gender identity and sexual orientation, it is instead presented at local planning authority level.
- 5.2.3 The EqIA team has worked closely with the land use and agriculture and socio-economics, tourism and health teams to share baseline data as far as possible to support efficiency and consistency. The EqIA has drawn on baseline data presented in PEI Report Chapter 12 Land use and agriculture (section 12.7) Volume I, and PEI Report Chapter 17 Socio-economics, tourism and health (section 17.7), Volume I. This includes national datasets such as ONS Census 2021, ONS Annual Population Survey, the Index of Multiple Deprivation, and Office for Health Improvement and Disparities (OHID) Public Health Profiles, as well as local sources such as the Hampshire Joint Strategic Needs Assessment (JSNA).
- 5.2.4 The baseline also includes the locations of community facilities that may be used by protected characteristic groups within the study area, including schools, healthcare facilities, religious buildings and open space. These are presented in EqIA Figure 5.1 Community facilities. This information will be reviewed and updated for the EqIA Report to support the DCO application, drawing on information gathered through the stakeholder engagement and consultation process.

Evidence review

- 5.2.5 Alongside the baseline, a review of evidence has been undertaken to identify the potential needs and sensitivities of protected characteristic groups in relation to the construction, operation and decommissioning of linear water infrastructure. This has considered research and data published by relevant organisations including the EHRC, and the findings of EqIAs undertaken for other comparable projects including, for example, the EqIA for the Anglian Water Cambridge Wastewater Treatment Plant Relocation Project.

Engagement with the Community EIA Working Group

- 5.2.6 EqIA is included in the topics for discussion at the Community EIA Working Group, alongside socio-economics, tourism and health, and land use and agriculture. Participation in the Community EIA Working Group includes officers from the local planning authorities within the study area, as well as other relevant organisations including the South Downs National Park Authority and the NHS Hampshire, Southampton and Isle of Wight Clinical Commissioning Group. The meetings of the Community EIA Working Group have allowed the EqIA team to present the proposed approach, methodology and baseline for the assessment to relevant local planning authority officers, and to seek feedback on the proposed methodology. As assessment findings emerge, these will also be discussed with stakeholders at the relevant Working Groups.

Identification of potential equality effects and review of EIA findings

- 5.2.7 Drawing on the findings of the baseline, evidence review and stakeholder engagement, the EqIA team has reviewed and developed the categories of effects set out in Table 5-1, and worked closely with relevant EIA topics to understand emerging EIA findings and the likely significant effects that could result in disproportionate or differential equality effects for protected characteristic groups.

Assessment of equality effects and identification of recommended actions

- 5.2.8 The assessment of equality effects takes into account the findings of relevant PEI Report chapters to identify the likely residual significant effects that could result in disproportionate or differential equality effects for protected characteristic groups. By exception, it has also considered whether there may be the potential for non-significant effects identified in the PEI Report to result in equality effects where it is known that there are protected characteristic groups with particular needs or sensitivities related to their protected characteristic/s that could be affected.
- 5.2.9 The assessment also identifies where there may be a need for further actions to address adverse equality effects, or measures that could be put in place to support the delivery of beneficial equality effects. These will be kept under review and developed further for the EqIA Report to support the DCO application.

Reporting

- 5.2.10 This EqIA Report forms part of the suite of documents shared at the Summer 2024 Consultation. An updated EqIA Report will be submitted with the DCO application, which will include an Action Plan setting out actions that have been identified through the assessment process.

5.3 Consultation and stakeholder engagement

- 5.3.1 Communication and engagement will continue, including through the Community EIA Working Group, as required by the continuing obligation to review under the PSED. Emerging EqIA findings and feedback received through the Summer 2024 Consultation process may identify the need for further targeted engagement with communities and/or representatives of protected characteristic groups affected by the Proposed Development. Where this is the case, the EqIA team will work with the Applicant's Engagement team, and with members of the Community EIA Working Group as appropriate, to undertake further targeted engagement as required. Further information regarding any targeted engagement will be provided in the EqIA Report to support the DCO application.
- 5.3.2 Planning for the Summer 2024 Consultation has included a range of approaches and media to maximise awareness of the Proposed Development and the consultation. These are designed to allow people with different needs across the community to take part in the consultation in a way that is accessible and convenient to them. Consultation methods will include letters, leaflets, posters, adverts, social media, meetings with local organisations, notices, emails, a consultation website, deposit locations in regional and local hubs where consultation materials are made available, and public consultation events. Six consultation events will be run over a combination of weekdays (14:00 to 20:00)

and Saturdays (10:00 to 16:00). Additional information is provided in the Statement of Community Consultation (SoCC).

- 5.3.3 In preparation for the Summer 2024 Consultation, the EqIA team worked with the Engagement and Consultation teams to input into the planning of public consultation events and materials, including consideration of the accessibility of consultation events and materials as outlined in the SoCC. An accessibility checklist has been used when booking consultation venues, which covers a wide range of considerations including location, accessibility (including wheelchair access), public transport, car parking, ease of wayfinding, size, emergency exits, availability of separate breakout rooms to provide quiet spaces, amenities including toilet facilities, and lighting.
- 5.3.4 Work has been undertaken to identify hard-to-reach and seldom heard groups (including young people, older people, LGBTQ+ groups, disabled people, people from ethnic minority backgrounds, and Gypsy, Roma and Traveller communities) who are likely to be impacted by the Proposed Development and will require due consideration with regard to consultation access. A targeted approach will be taken to engagement with these groups through the Summer 2024 Consultation process. To ensure accessibility (including seldom heard and hard-to-reach groups), on request, documents can be translated, made available in large print, audio version, braille and in a digital data format (e.g. USB). In addition, hard copies of consultation documents can be provided. There may be a charge for paper copies of some consultation documents.
- 5.3.5 The EqIA team has also been given the opportunity to review and input into the coding of consultation responses. This will ensure that feedback and issues relevant to the assessment are coded appropriately so that they can inform the assessment of effects for protected characteristic groups, and the identification of any measures that may be required to reduce any disproportionate or differential effects.

6 Baseline and evidence review

6.1 Protected characteristics

- 6.1.1 This section sets out baseline data showing the representation of protected characteristic groups within the study area. Most of the baseline data presented in this section of the report is drawn from the ONS Census [24], and is presented at ward and local planning authority level, with comparator data for Hampshire and for England. Census data for gender identity and sexual orientation is not available at ward level and so local planning authority data is provided.
- 6.1.2 EqIA Figure 5.1 Community facilities, shows the locations of community facilities used by protected characteristic groups within the study area, including schools, healthcare facilities, religious buildings and open space. This will be reviewed and updated for the EqIA Report to support the DCO application, and further information will be gathered through the stakeholder engagement and consultation process to understand the locations of resources used by protected characteristic groups that could be sensitive to effects arising from the construction, operation and decommissioning of the Proposed Development.
- 6.1.3 Further socio-economic baseline information, including information on employment and skills, is provided in PEI Report Chapter 17 Socio-economics, tourism and health (section 17.7), Volume I. Key points from the socio-economics, tourism and health baseline relevant to the EqIA are:
- Much of the study area is in areas of relatively low deprivation. The exception is in Havant, particularly around Leigh Park to the north-west of the town.
 - Employment rates are generally above average. The proportion of working-age residents claiming out-of-work benefits is generally below average, with exceptions in the wards of Battins, Barncroft and Warren Park in Havant, and Paulsgrove in Fareham.
 - Havant has a relatively high proportion of residents with no qualifications, and a low rate of residents with degree-level qualifications. Solent Local Enterprise Partnership (LEP) has identified skills shortages in sectors including construction across the Solent area, in part because of an ageing construction workforce.
 - Life expectancy is generally above average, with the exception of Barncroft, Warren Park, Battins, Cosham and Paulsgrove. Havant as a whole generally experiences higher than average rates of health conditions including chronic obstructive pulmonary disorder, mental health disorders, and obesity.

Age

- 6.1.4 Table 6-1 shows the age profile of the population of each ward in the study area, the affected local planning authorities, Hampshire and England. The proportion of residents who are children aged between 0 and 15 is slightly below the national average in Hampshire, at 17.8% compared with 18.6% for England. At local planning authority level, only Eastleigh has a higher than average proportion of children. Among the wards within the study area, the proportion of residents who are children varies considerably, with the highest proportion in Warren Park where

26% of residents are aged between 0 and 15, and the lowest in Rowlands Castle where 14.2% of residents are within this age group.

6.1.5 At local planning authority level, both Portsmouth and Winchester have higher than average proportions of residents aged 16-24, reflecting the student populations in these areas associated with the University of Portsmouth and University of Winchester respectively. At ward level, the proportion of residents who fall into this age group is generally slightly below the national average of 10.6%, with only Warren Park (11.7%) and Paulsgrove (10.9%) recording a higher than average proportion of this age group.

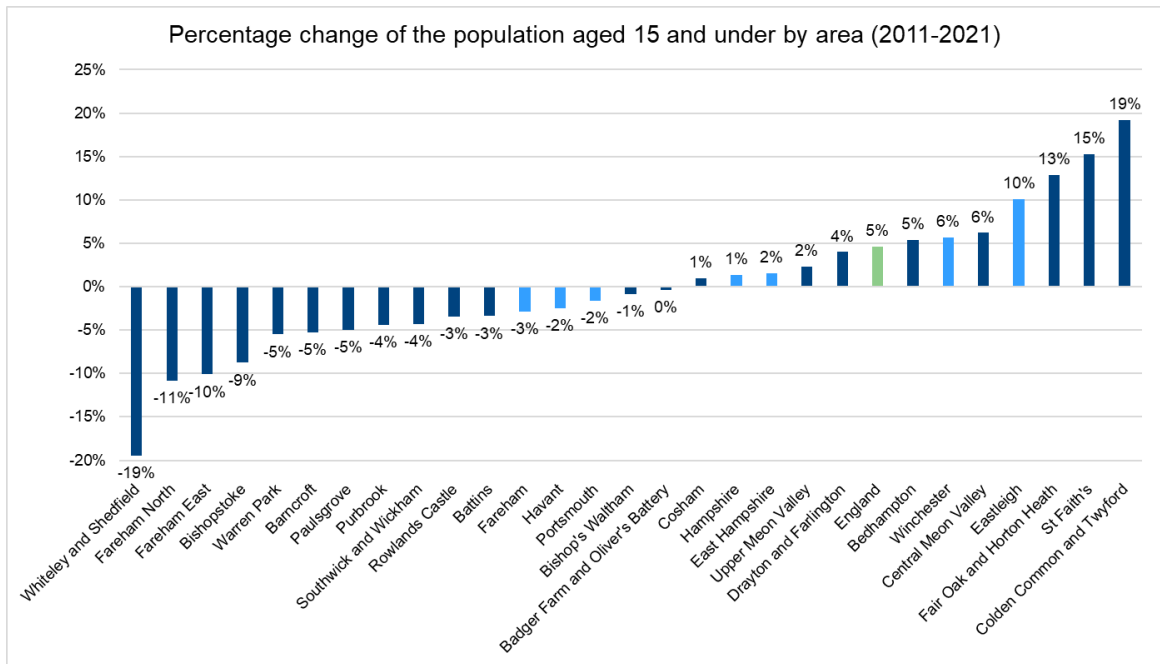
6.1.6 Among the older age groups, 18.6% of the population in Hampshire are aged between 65 and 84, and 3.1% are aged 85 and over. This is higher than the national averages of 16% and 2.4% respectively. All of the local planning authorities, with the exception of Portsmouth, also have higher than average proportions of residents aged 65 and over. At ward level, however, the proportion of residents in older age groups again varies considerably. The ward in the study area with the highest proportion of the population aged between 65 and 84 is Rowlands Castle, at 24.7%, while the lowest is Warren Park, at 11.3%. Fareham North has the highest proportion of the population aged over 85, at 5.1%, and Warren Park the lowest, at 1.4%.

Table 6-1 Age profile (Source: ONS Census 2021)

	0-15	16-24	25-44	45-64	65-84	85 and over
Wards						
Badger Farm and Oliver's Battery	18.4%	8.6%	21.3%	28.1%	20.3%	3.3%
Barncroft	22.4%	10.0%	27.7%	25.3%	13.0%	1.5%
Battins	22.5%	9.7%	27.1%	25.4%	13.3%	2.0%
Bedhampton	15.9%	8.3%	23.7%	29.0%	19.3%	3.8%
Bishop's Waltham	16.4%	7.8%	21.0%	27.6%	23.6%	3.5%
Bishopstoke	18.2%	7.4%	25.0%	26.7%	19.3%	3.3%
Central Meon Valley	18.1%	8.4%	19.5%	30.4%	20.9%	2.7%
Colden Common and Twyford	20.8%	7.5%	21.6%	27.9%	19.2%	3.0%
Cosham	20.4%	9.7%	27.5%	25.0%	14.9%	2.6%
Drayton and Farlington	18.6%	8.9%	23.1%	26.8%	18.5%	4.1%
Fair Oak and Horton Heath	19.0%	9.5%	25.3%	27.6%	16.4%	2.3%
Fareham East	15.9%	8.7%	24.2%	28.5%	19.0%	3.7%
Fareham North	15.5%	8.3%	22.0%	27.5%	21.6%	5.1%
Paulsgrove	21.6%	10.9%	26.8%	25.6%	13.6%	1.5%

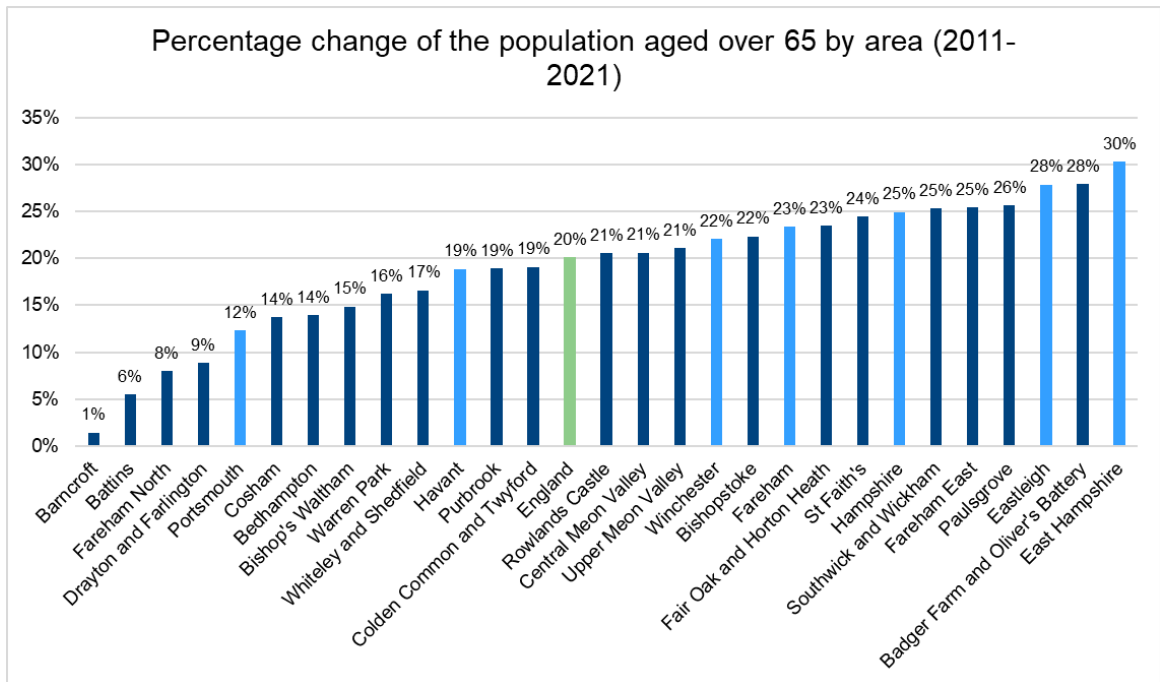
	0-15	16-24	25-44	45-64	65-84	85 and over
Purbrook	15.8%	8.8%	21.1%	30.6%	20.6%	3.1%
Rowlands Castle	14.2%	6.7%	18.9%	31.9%	24.7%	3.7%
Southwick and Wickham	18.8%	8.9%	27.6%	25.9%	16.2%	2.6%
St Faith's	15.9%	8.9%	23.5%	27.9%	20.3%	3.5%
Upper Meon Valley	16.5%	8.6%	17.8%	32.9%	21.7%	2.6%
Warren Park	26.0%	11.7%	26.6%	23.0%	11.3%	1.4%
Whiteley and Shedfield	18.6%	9.3%	26.1%	29.2%	14.6%	2.1%
Local planning authorities						
HBC	17.2%	8.7%	22.4%	27.3%	20.8%	3.6%
WCC	17.8%	12.4%	22.2%	26.7%	17.7%	3.2%
FBC	16.5%	8.4%	22.2%	28.3%	20.9%	3.7%
EBC	19.1%	8.6%	26.5%	26.2%	16.8%	2.7%
PCC	17.9%	15.6%	28.3%	23.5%	12.8%	2.0%
EHDC	17.4%	8.5%	21.8%	29.1%	19.9%	3.2%
Regional and national comparators						
Hampshire	17.8%	9.0%	24.1%	27.4%	18.6%	3.1%
England	18.6%	10.6%	26.6%	25.8%	16.0%	2.4%

6.1.7 Graphic 6-1 shows the percentage change in the population aged 15 and under by area in 2021 compared to the 2011 Census data [25]. The regional average percentage change in the population aged 15 and under between 2011 and 2021 in Hampshire was 1.4%, which is below the national average of 4.6%. Among the wards within the study area there is a large difference in the population growth rate of this age group, with Colden Common and Twyford recording a growth rate of 19.2%, compared to a decrease of 19.5% in Whiteley and Shedfield.



Graphic 6-1 Percentage change in the population aged 15 and under, 2011-2021 (Source: ONS Census 2011 and Census 2021)

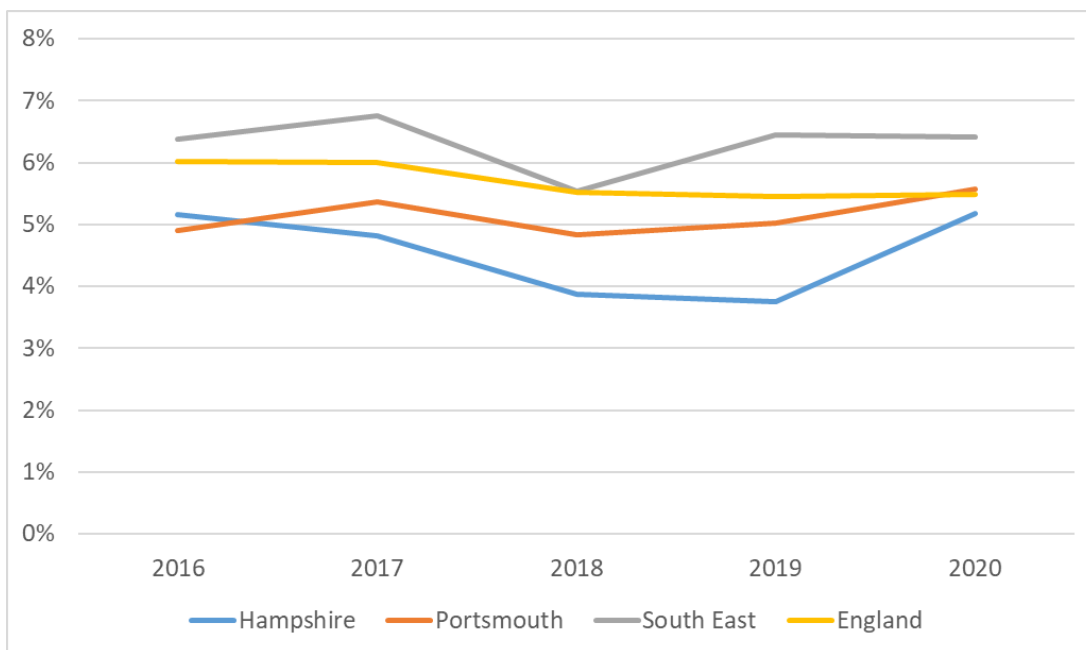
6.1.8 Graphic 6-2 shows the percentage change in the population aged 65 and over by area between 2011 and 2021. The population of this age group grew in every area within the study area, with the highest growth rate recorded in the local planning authority of East Hampshire (30.3%). At the regional level, the population within this age group increased by 25% between 2011-2021, which is higher than the national average of 20.1%. Among the wards within the study area, the largest increase in the population aged 65 and over was in Badger Farm and Oliver's Battery (27.9%), and the smallest increase was recorded in Barncroft (1.4%).



Graphic 6-2 Percentage change in the population aged over 65, 2011-2021
 (Source: ONS Census 2011 and 2021)

- 6.1.9 Graphic 6-3 shows the proportion of young people aged 16 and 17 who are either not in education, employment or training (NEET), or whose activity is otherwise not known by their local planning authority. This shows that the proportion of young people in this category is generally lower in Hampshire and Portsmouth¹⁰ than the regional and national averages, although the most recent data shows a sharp increase in the rate in Hampshire and a slight increase in the rate in Portsmouth which takes it above the national average. It should be noted that this data is from 2020 and therefore reflects the impact of the initial lockdown period associated with the COVID-19 pandemic.
- 6.1.10 The underlying data shows considerable variation in the rate of young people who are NEET by characteristic. Young people who have Special Educational Need (SEN) support, for example, are more likely to be NEET than others. The proportion who are NEET also varies by ethnic group and by gender, with girls generally less likely to be NEET than boys, and young people from Asian or Asian British groups generally less likely to be NEET than young people from other ethnic backgrounds [26].

¹⁰ This data is not available for lower level local planning authorities.



Graphic 6-3 Proportion of 16 and 17 year olds who are NEET or whose activity is not known [26]

Disability

- 6.1.11 Table 6-2 shows the proportion of the population whose daily activities are limited either a little or a lot by a long-term health problem or disability in each ward in the study area, the affected local planning authorities, Hampshire, and England. In England as a whole, the total population with a disability that limits day-to-day activities a little is 7.3%, and those with a disability that limits day-to-day activities a lot is 10%. The proportion of the population in Hampshire with a disability that limits day-to-day activities a little is lower than the national average, at 6.2%. The proportion of the population with a disability that limits day-to-day activities a lot in Hampshire is 10.2%, which is slightly higher than the national average.
- 6.1.12 Among the wards within the study area, Battins and Warren Park wards have the highest proportion of the population with a disability that limits day-to-day activities a little, at 10.1%, which is significantly higher than the regional and national averages. In addition, Battins Ward also has the highest proportion of the population with a disability that limits day-to-day activities a lot, at 13.3%. Upper Meon Valley has the lowest proportion of the population with a disability that limits day-to-day activities a little, at 3.7%, and Whiteley and Shedfield have the lowest proportion of the population with a disability that limits day-to-day activities a lot, at 8.1%.

Table 6-2 Disability (Source: ONS Census 2021)

	Day-to-day activities limited a little	Day-to-day activities limited a lot	Day-to-day activities not limited
Wards			
Badger Farm and Oliver's Battery	4.2%	8.6%	87.2%
Barncroft	9.1%	11.4%	79.5%

	Day-to-day activities limited a little	Day-to-day activities limited a lot	Day-to-day activities not limited
Battins	10.1%	13.3%	76.6%
Bedhampton	7.5%	11.6%	80.9%
Bishop's Waltham	5.6%	11.0%	83.3%
Bishopstoke	6.6%	10.7%	82.7%
Central Meon Valley	4.2%	9.0%	86.8%
Colden Common and Twyford	4.6%	9.4%	86.0%
Cosham	7.9%	10.2%	81.9%
Drayton and Farlington	6.6%	9.4%	84.0%
Fair Oak and Horton Heath	4.7%	9.1%	86.2%
Fareham East	6.1%	10.5%	83.3%
Fareham North	7.0%	10.9%	82.1%
Paulsgrove	9.0%	11.8%	79.1%
Purbrook	6.6%	10.9%	82.4%
Rowlands Castle	5.3%	9.8%	84.9%
Southwick and Wickham	6.3%	9.6%	84.1%
St Faith's	6.8%	9.9%	83.3%
Upper Meon Valley	3.7%	8.8%	87.4%
Warren Park	10.1%	12.2%	77.8%
Whiteley and Shedfield	4.8%	8.1%	87.1%
Local planning authorities			
HBC	8.3%	11.6%	80.1%
WCC	5.3%	10.0%	84.6%
FBC	6.3%	10.5%	83.2%
EBC	6.1%	10.0%	84.0%
PCC	7.1%	10.5%	82.4%
EHDC	5.6%	9.9%	84.4%
Regional and national comparators			
Hampshire	6.2%	10.2%	83.6%
England	7.3%	10.0%	82.7%

Gender reassignment

6.1.13 Table 6-3 shows the proportion of the population that identity with the same gender as their sex registered in the local planning authorities within the study area,

Hampshire, and England. This is the first time that data on gender identity has been collected in the Census, and it is not available at ward level.

6.1.14 The national average proportion of the population whose gender identity is the same as their sex registered at birth is 93.5%. Other gender identities, including trans man, trans woman, and other gender identities, account for 0.5% of the national population. In Hampshire, 95% of the population's gender is the same as their sex registered at birth, which is slightly higher than the national average, and 0.4% of the population identify with a different gender. Among the local planning authorities within the study area, the percentages identifying with the same gender as their sex registered at birth and with a different gender identity is broadly in line with the regional average. However, Portsmouth has a slightly lower percentage (93.1%) that identify as the same gender as their sex registered at birth and a slightly higher percentage (0.6%) that identify as a different gender compared to the regional average.

Table 6-3 Gender identity (Source: ONS Census 2021)

	Gender identity the same as sex registered at birth	All other gender identities (including trans man or trans woman)	Not answered
Local planning authorities			
HBC	94.9%	0.4%	4.7%
WCC	94.8%	0.4%	4.8%
FBC	95.4%	0.4%	4.3%
EBC	95.5%	0.4%	4.2%
PCC	93.1%	0.6%	6.2%
EHDC	95%	0.4%	4.7%
Regional and national comparators			
Hampshire	95%	0.4%	4.6%
England	93.5%	0.5%	6%

Race

6.1.15 Table 6-4 shows the percentage of the population by ethnic group in each ward in the study area, the affected local planning authorities, Hampshire, and England. Across Hampshire, the proportion of the population from White ethnic groups accounts for 92.6% of the population, which is significantly higher than the England-wide average of 81%. The proportion of the population in Hampshire from Asian, Asian British or Asian Welsh ethnic groups in Hampshire (3.8%) is also significantly below the national average (9.6%). Portsmouth is the most ethnically diverse local planning authority in the study area, with a significantly higher proportion of the population from Asian, Asian British or Asian Welsh ethnic groups (6.9%) compared to the regional average (3.8%). There is also a higher proportion of the population in Portsmouth from Black, Black British, Black Welsh, Caribbean

or African ethnic groups (3.4%) compared to the regional average (1.9%). However, this is below the national average of 4.2%.

6.1.16 Among the wards within the study area, Cosham has a significantly higher percentage of the population from Asian, Asian British or Asian Welsh ethnic groups (7.2%) compared to the regional average (3.8%). Paulsgrove has a notably higher proportion of the population from Black, Black British, Black Welsh, Caribbean or African ethnic groups (1.9%) compared to the regional average (1%). In the majority of the wards, the percentage of the population from White ethnic groups is higher than the regional average and significantly higher than the national average.

6.1.17 There is a small number of authorised Gypsy and Traveller pitches within the study area, located in Colden Common, Upham, Highbridge, Knowle and Fisher's Pond.

Table 6-4 Ethnic group (Source: ONS Census 2021)

	Asian, Asian British or Asian Welsh	Black, Black British, Black Welsh, Caribbean or African	Mixed or Multiple ethnic groups	White	Other ethnic groups
Wards					
Badger Farm and Oliver's Battery	4.0%	0.4%	2.3%	92.2%	1.1%
Barncroft	1.6%	1.1%	1.1%	95.9%	0.3%
Battins	1.3%	0.8%	1.6%	95.9%	0.4%
Bedhampton	2.4%	0.4%	1.4%	95.4%	0.5%
Bishop's Waltham	0.8%	0.2%	0.8%	98.1%	0.2%
Bishopstoke	1.4%	0.2%	1.4%	96.3%	0.6%
Central Meon Valley	0.7%	0.2%	1.2%	97.7%	0.2%
Colden Common and Twyford	2.0%	0.3%	1.9%	95.7%	0.2%
Cosham	7.2%	1.6%	1.9%	88.4%	0.9%
Drayton and Farlington	3.1%	0.6%	1.4%	94.2%	0.7%
Fair Oak and Horton Heath	2.1%	0.4%	1.1%	96.2%	0.2%
Fareham East	3.5%	0.8%	2.0%	93.0%	0.7%
Fareham North	2.3%	0.5%	1.6%	95.1%	0.5%
Paulsgrove	3.6%	1.9%	1.8%	92.2%	0.5%
Purbrook	2.5%	0.6%	1.2%	95.5%	0.3%
Rowlands Castle	0.5%	0.5%	1.3%	97.0%	0.6%

	Asian, Asian British or Asian Welsh	Black, Black British, Black Welsh, Caribbean or African	Mixed or Multiple ethnic groups	White	Other ethnic groups
Southwick and Wickham	1.6%	0.8%	1.8%	95.6%	0.3%
St Faith's	2.5%	0.8%	1.9%	94.2%	0.7%
Upper Meon Valley	0.8%	0.2%	1.6%	97.1%	0.3%
Warren Park	0.9%	1.0%	1.4%	96.2%	0.5%
Whiteley and Shedfield	3.3%	0.5%	1.6%	93.9%	0.7%
Local planning authorities					
HBC	1.7%	0.6%	1.4%	95.9%	0.4%
WCC	3.1%	0.6%	2.0%	93.6%	0.7%
FBC	1.8%	0.6%	1.5%	95.6%	0.4%
EBC	3.9%	1.0%	2.1%	92.4%	0.7%
PCC	6.9%	3.4%	2.6%	85.2%	1.8%
EHDC	1.9%	0.5%	1.7%	95.4%	0.5%
Regional and national comparators					
Hampshire	3.8%	1.0%	1.9%	92.6%	0.8%
England	9.6%	4.2%	3.0%	81.0%	2.2%

Religion

- 6.1.18 Table 6-5 shows the proportion of the population by religious group in each ward in the study area, the affected local planning authorities, Hampshire, and England. In Hampshire as a whole, 47.8% of the population identify as a Christian, which is slightly higher than the national average (46.3%). Those with no religion account for 42.8% of the population in Hampshire, which is significantly higher than the England-wide average of 36.7%. Conversely, the percentage of the population in Hampshire that identify as a Muslim (0.9%) is significantly lower than the national average (6.7%). The percentage of the population that identify as Hindu in Hampshire (1.1%) is also lower than the national average (1.8%).
- 6.1.19 Among the wards within the study area, a significantly higher proportion of the population in Warren Park (61.4%) are irreligious and a significantly lower proportion are Christian (31.3%) compared to the regional and national averages. In contrast, 56.8% of the population in Upper Meon Valley identify as a Christian, which is significantly higher than the regional and national averages. The ward with the highest proportion of the population that identify as a Muslim is Cosham (2.3%), which is higher than the regional average and lower than the national average.

Table 6-5 Religion (Source: ONS Census 2021)

	No religion	Christian	Hindu	Muslim	Other religion	Not answered
Wards						
Badger Farm and Oliver's Battery	36.3%	54.1%	1.0%	0.6%	1.7%	6.3%
Barncroft	58.7%	34.9%	0.4%	0.5%	0.8%	4.8%
Battins	58.9%	34.5%	0.3%	0.7%	0.8%	4.8%
Bedhampton	45.3%	47.2%	0.5%	0.6%	0.9%	5.5%
Bishop's Waltham	42.5%	52.1%	0.1%	0.2%	0.6%	4.4%
Bishopstoke	45.2%	47.0%	0.5%	0.4%	1.1%	5.9%
Central Meon Valley	41.9%	52.5%	0.1%	0.2%	0.5%	4.8%
Colden Common and Twyford	43.2%	50.1%	0.6%	0.4%	0.9%	4.9%
Cosham	48.9%	41.9%	0.8%	2.3%	1.3%	4.9%
Drayton and Farlington	44.0%	47.6%	0.3%	1.4%	0.8%	5.9%
Fair Oak and Horton Heath	45.1%	47.6%	0.6%	0.3%	0.7%	5.7%
Fareham East	47.3%	43.7%	0.7%	1.1%	0.9%	6.2%
Fareham North	44.3%	48.3%	0.2%	1.2%	1.1%	4.9%
Paulsgrove	54.3%	37.8%	0.5%	1.3%	0.9%	5.2%
Purbrook	44.3%	48.5%	0.3%	0.6%	0.8%	5.4%
Rowlands Castle	39.0%	54.8%	0.0%	0.0%	1.3%	4.9%
Southwick and Wickham	45.6%	45.9%	0.3%	0.3%	1.3%	6.5%
St Faith's	45.3%	47.5%	0.5%	0.8%	0.9%	4.8%
Upper Meon Valley	35.0%	56.8%	0.1%	0.2%	0.8%	7.1%
Warren Park	61.4%	31.3%	0.2%	0.6%	0.9%	5.6%
Whiteley and Shedfield	42.7%	47.7%	1.4%	0.6%	1.0%	6.6%
Local planning authorities						
HBC	47.4%	45.3%	0.3%	0.5%	1.0%	5.5%
WCC	42.2%	48.6%	0.7%	0.7%	1.4%	6.3%
FBC	43.7%	49.1%	0.4%	0.6%	0.9%	5.4%
EBC	45.0%	45.7%	1.0%	1.0%	1.7%	5.6%

	No religion	Christian	Hindu	Muslim	Other religion	Not answered
PCC	47.1%	39.4%	0.8%	4.9%	1.4%	6.4%
EHDC	40.9%	51.1%	0.3%	0.6%	1.1%	6.1%
Regional and national comparators						
Hampshire	42.8%	47.8%	1.1%	0.9%	1.7%	5.7%
England	36.7%	46.3%	1.8%	6.7%	2.5%	6.0%

Sexual orientation

6.1.20 Table 6-6 shows the proportion of the population by their sexual orientation in the local planning authorities within the study area, Hampshire, and England. This is the first time that data on sexual orientation has been collected in the Census, and it is not available at ward level.

6.1.21 The proportion of the population in Hampshire that identifies as straight or heterosexual (91.3%) is slightly higher than the national average (89.4%), while the proportion of the population that identifies as gay or lesbian (1.2%) is slightly lower than the national average (1.5%). Among the local planning authorities in the study area, a lower than average proportion of the population in Portsmouth identify as straight or heterosexual (87.7%), and a higher than average proportion of the population identify as gay or lesbian (2.0%) or bisexual (2.1%).

Table 6-6 Sexual orientation (Source: ONS Census 2021)

	Straight or heterosexual	Gay or lesbian	Bisexual	All other sexual orientations	Not answered
Local planning authorities					
HBC	91.4%	1.2%	1.0%	0.2%	6.2%
WCC	90.1%	1.3%	1.7%	0.4%	6.6%
FBC	91.9%	1.3%	0.9%	0.2%	5.8%
EBC	91.8%	1.2%	1.1%	0.2%	5.7%
PCC	87.7%	2.0%	2.1%	0.5%	7.7%
EHDC	91.4%	1.1%	0.9%	0.2%	6.3%
Regional and national comparators					
Hampshire	91.3%	1.2%	1.1%	0.3%	6.2%
England	89.4%	1.5%	1.3%	0.3%	7.5%

6.2 Evidence review

6.2.1 This section presents data, research and analysis around the particular needs and sensitivities of protected characteristic groups in relation to the economic, social and environmental issues that could arise from the location, construction, operation and decommissioning of a major water recycling and linear pipeline

infrastructure project. Information is drawn from surveys, research reports, organisations representing protected characteristic groups, and from EqlAs from comparable water and linear major infrastructure projects including, for example, High Speed Two (HS2) rail and the Anglian Water Cambridge Wastewater Treatment Plant Relocation Project.

Employment, training and skills

- 6.2.2 The EHRC's report *Is Britain Fairer?* [27] finds that certain groups experience persistently lower than average levels of employment, and higher than average levels of unemployment. These groups include young people, disabled people, Pakistani and Bangladeshi people, and Muslims. These groups are also more likely to be in insecure employment than other groups. Census data for the study area shows considerable variation at local planning authority level (noting that the population of some protected characteristic groups at local planning authority level is relatively small), but consistently lower than average levels of employment among women, disabled people, and young people aged 16-24 [24].
- 6.2.3 The report also finds that protected characteristic groups experience pay and employment gaps compared with other groups, although the size of these gaps varies by sector. The largest gender pay gap is in the skilled trades sector, at nearly 25%. Women and disabled people are also more likely than others to be in low-pay occupations, with women holding 65% of all jobs below the national living wage or national living wage. Women continue to be under-represented in sectors including engineering and construction [27]. According to government data, disabled people are over a third less likely to be employment than non-disabled people in the UK [28].
- 6.2.4 Apprenticeships are reported to be strongly segregated by sex, with women under-represented in sectors that tend to have better pay and opportunities for advancement such as construction and engineering. There are also concerns that disabled people and people from ethnic minority backgrounds are under-represented in apprenticeship programmes [27], and in the construction and engineering sectors more generally.
- 6.2.5 The Construction Industry Council (CIC) reports that just 5.4% of construction workers are from a Black, Asian or ethnic minority background [29]. Census data at local planning authority level suggests that this figure could be lower within the study area, where between 95.7% (in Portsmouth) and 98.5% (Havant) of construction workers are from White ethnic groups [24]. Research commissioned by the Construction Industry Training Board (CITB) has found that women account for 13% of the overall construction workforce [30]. The proportion of women in manual roles is smaller still, at 3% of the UK workforce [31], and only 9% of apprentices in the industry are women [30]. Close to three quarters of women surveyed said that more needs to be done to raise awareness of the opportunities that exist for women in construction [30].
- 6.2.6 It is recognised that the construction industry in the UK has an 'ageing workforce', with difficulties attracting younger workers and many existing workers aged 55 and over choosing to retire or leave the industry before reaching the state retirement age [32]. This has led to skills gaps and labour shortages, and a focus within the industry of diversifying recruitment and attracting more young people, women, and people from ethnic minority backgrounds into the sector [33]. Within the study area,

Census data shows that the proportion of the construction workforce who are aged 50 and over ranges from 32% in Portsmouth, to 43% in East Hampshire [24].

Noise and other changes in the sensory environment

- 6.2.7 In 2011 the World Health Organisation (WHO) reported that noise is responsible for more disturbance to quality of life and the largest environmental health risk in Western Europe [34]. Department for Levelling Up, Housing and Communities (DLUHC) and Ministry of Housing (MOH) guidance suggests noise needs to be considered when constructing a new development project, to acknowledge the potential adverse effect it may have on the surrounding environment [35].
- 6.2.8 Groups that have been identified as particularly sensitive to noise include people with chronic health conditions, older people, and people living in low income households [36]. Gypsy and Traveller communities can also be more sensitive to noise due to greater transference of noise through trailer and caravan walls [37]. For older people, prolonged exposure to construction and transportation noise can contribute to a higher prevalence of cardiovascular disease, stroke and dementia in affected communities [38] [39].
- 6.2.9 Disabled people can also be particularly susceptible to change in noise levels. For example, an increase in noise can affect people with learning disabilities and lead to challenging behaviours [39]. Frequent or loud noise can also impact mental health conditions by triggering anxiety or stress [40]. The National Institute for Health and Care Research (NIHR) has reported that loud background noise can distract and overwhelm autistic people, impacting their social life, career and, emotional well-being [41].
- 6.2.10 Children can also be particularly sensitive to noise impacts. Research by University College London (UCL) [42] has found that younger children are considerably more susceptible to poor noise conditions. Prolonged construction noise pollution has been reported to impair children's cognition and learning. However, UCL has found that noise does not affect all children equally. For example, children with autism are often highly sensitive to specific types of noise [42].
- 6.2.11 Sensory issues are common in people with autism and changes in the visual environment can also create challenges for those who experience hypersensitivity, such as sensory overload [43]. Older people can also be more likely to be sensitive to rapid visual changes in the visual environment [39] as eyes can become more sensitive to glare which can make reflective and shiny surfaces difficult, and even painful, to see clearly [44].

Air quality

- 6.2.12 The WHO has stated that air pollution is the most significant environmental health risk in the European Region [45]. It is recognised that children, and particularly those from socio-economically deprived backgrounds, can be at greater risk of harm from air pollution and poor air quality than other groups [46]. UNICEF UK, for example, have warned that air pollution is damaging children's health in the UK. From a survey conducted, they found 88% of child health experts warning that toxic air is already creating problems for children in their region, with 1 in 3 children breathing in harmful quality air that could damage their health and impact their future [46].

- 6.2.13 Groups including older people and people living with certain illnesses such as heart or lung conditions may also be more sensitive to the health effects arising from poor air quality [47]. Guidance published by Defra highlights that older people are more likely to have respiratory or cardiovascular illness when compared to other age groups, making them more susceptible to the effects of reduced air quality [47].
- 6.2.14 Ethnic minority groups such as Romany Gypsy and Irish Traveller communities may also have a higher risk of adverse impacts from poor air quality and noise due to the tendency for Gypsy and Traveller sites to be located in proximity to active flyover and slip roads and industrial estates [48]. Research in London has found that people from Black ethnic backgrounds and people living in deprived areas are also more likely to live in areas affected by poor air quality [49].

Transport

- 6.2.15 Disruption to public transport and to local road networks can impact on different groups in different ways. An evidence review by the Government Office for Science (GOS) finds that lack of access to public transport can reduce access to education and training opportunities particularly impacting people from low-income households, young people and those of both groups that live in rural areas [50]. The review also highlights that limited public transport options can reduce access to healthcare, as people without car access or adequate public transport options are more likely to miss health appointments and have associated delays in medical interventions [50].
- 6.2.16 A report for the Department for Transport (DfT) looking at the social impacts of public transport found that, in 2013, children, young people, older people, disabled people, and people from an ethnic minority background were less likely to have access to private transport than other groups [51] and therefore more likely to be dependent on public transport, including for access to healthcare facilities, education, and employment. Changes in road traffic levels may reduce children's access to community and recreational facilities due to road severance and traffic delays [52]. Increased traffic in proximity to schools, or community facilities that are frequently used by children can also impact their concentration and long-term cognitive development [39]. The Department for Work and Pensions (DWP) has also reported that disabled people can be adversely affected by travel disruptions as alternative modes of transport may be limited or not accessible [53]. Disabled people who travel by car are more likely to report difficulties due to congestion and roadworks, especially when the severity of the disability the person experiencing increases [54]. More recently, the EHRC noted that transport is at risk of becoming less accessible for disabled and older people due in part to reductions in bus services [27].
- 6.2.17 Data from the DfT National Transport Survey (NTS) 2022 underlines the continuing importance of private car travel, particularly in rural areas. Outside of London, cars are used by 69% of people for commuting trips by residents in urban areas, and 84% for those living in rural areas [55]. In 2022 females made shorter, more frequent trips by car than males, however males travelled for a greater overall journey length [56], reflecting differences in the purpose of trips. With regards to active travel modes, children aged 16 and under made the highest proportion of trips by walking or cycling, at 42% [55].

Open space and recreation

- 6.2.18 The NIHR has found that there is a significant link between well-being and people's living environments, with analysis showing residents with a lack of access to open space having poor well-being [57]. Fields in Trust state that to continue to build healthy neighbourhoods that contribute to the mental and physical health of local communities, open recreational space in the form of parks, playgrounds and playing fields are very important as without, the quality of life and well-being is reduced [58].
- 6.2.19 Access to open space can be particularly important for children. UNICEF report that green open spaces positively impact children's physical, mental and social development from infancy to adulthood through aiding in improving ability to concentrate and are less depressed [59]. Access to the natural environment can be beneficial to young people with autism specifically [60], however for people with autism, difficulties with transport can create barriers to accessing community services and facilities, contributing to social exclusion [61]. Disabled people can also encounter physical and social barriers to accessing open spaces and recreation [37].
- 6.2.20 Evidence shows that accessing greenspace can be an effective intervention for people with mental health problems [62]. Allotments and community gardens can be important resources in areas where residents may not have access to a private garden, and have seen an increase in demand in recent years. Having an allotment garden is shown to positively influence well-being, self-esteem and moods [63]. Older people living in neighbourhoods with more green space have also reported better health, higher life satisfaction and less stress [39]. In addition, greater exposure to green space has been associated with a lower risk of cardiovascular disease and diabetes [64].
- 6.2.21 Horse riding engages a diverse range of participants with a large proportion of disabled people, women and participants over the age of 45 [65]. The British Horse Society (BHS) states that 40% of participants do not engage in any other form of physical activity, highlighting the importance of the activity to the health of people with protected characteristics [65]. The Riding for the Disabled Association (RDA) reports that 24% of all people taking part in equestrian activity have a disability, and that riding is one of the most popular and accessible forms of physical activity for disabled people [66]. Riding can help to improve core strength, balance and co-ordination, as well as improve well-being, and is regularly prescribed by health care professionals [66].

Safety

- 6.2.22 National data from the NTS 2022 shows that for children aged 5-10, 53% of trips to and from school were made by walking, 40% by car, and 4% by bus. Among older children aged 11-16, 41% walked to school, 26% travelled via car, 16% by local bus and 6% by pedal cycle [55]. Regional data for the 5-16 age group found that 45% of children in the South East walked to school, 5% cycled, 36% travelled by car and 10% travelled by bus. This is broadly in line with the national average for this age group, although the proportion walking to school was slightly below average in the South East and the proportion cycling was slightly above average [67].

- 6.2.23 The NTS found that only 4% of those asked stated road safety concerns as the main reason for not walking to school more often. However, the most popular encouragement to increase the frequency of walking to school were safer roads (12%) and more safer crossing points (7%) [55].
- 6.2.24 In 2015 a survey commissioned by the BHS found that 44% of people who ride at least once a week would do so more frequently if they had access to safe off-road riding or bridleways [65]. Since 2010, 4,229 road traffic incidents involving horses have been reported to the BHS, 73% of which were due to vehicles passing too fast or too close to the horse [65]. Only 22% of the England PRoWs are bridleway or byway, available to horse riders, with many being unusable due to busy roads or truncated by development [65].
- 6.2.25 Safety around construction sites can be a concern, particularly for children who can be drawn to construction sites and see them as places to play [68]. The Health and Safety Executive (HSE) reports that each year, two or three children die after gaining access to building sites and many more are injured [68]. HSE guidance highlights the importance of measures including maintaining a secure site, using barriers or covering excavations and pits, isolating and immobilising vehicles and plant, storing building materials securely, removing ladders, and locking away hazardous substances [68].
- 6.2.26 Changes to the pedestrian environment around construction sites could evoke safety concerns for some groups of local people. Women specifically are more likely to have security concerns as pedestrians than men and almost two-thirds of women in the UK feel unsafe when walking alone [69]. This is due to the perceived risk of abuse, harassment, or general feeling of unsafety due to poor lighting or visibility [70]. Walkability of a neighbourhood is also fundamental factor in influencing the safety perceptions of women, influenced by lighting, clear signage and safety procedures [71].

7 Assessment of equality effects

7.1 Construction

7.1.1 Table 7-1 sets out the assessment of potential equality effects that could arise during the construction and decommissioning of the Proposed Development, and the actions that could be put in place to reduce adverse effects and support the delivery of beneficial effects. These actions will be developed into an Action Plan for inclusion in the EqIA Report to support the DCO application.

Table 7-1 Assessment of equality effects during construction (and decommissioning)

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
Employment	<p>PEI Report Chapter 17 Socio-economics, tourism and health (section 17.8), Volume I, estimates that the construction of the Proposed Development could create up to 600 net direct full-time equivalent (FTE) jobs in the South East at the peak of construction, with a further 300 net indirect FTE jobs in the supply chain. Of these, up to 280 net direct FTE jobs could be retained within Hampshire at the peak of construction, with up to a further 80 net indirect FTE jobs in the supply chain.</p> <p>This creates opportunities for local workers in Hampshire to benefit from the construction of the Proposed Development. As noted in the evidence review, the construction sector nationally has an ageing workforce which has led to skills gaps and labour shortages, and at local planning authority level within the study area between 32% and 43% of construction workers are aged over 50 [24].</p>	Young people (beneficial effect)	Young people (beneficial effect) Disabled people (beneficial effect) Women (beneficial effect) Black and Minority Ethnic groups (beneficial effect)	<p>Ongoing engagement with stakeholders and drawing on Summer 2024 Consultation feedback to understand barriers to employment in the construction sector.</p> <p>Develop measures for inclusion in the Outline SEP that could address barriers and increase access to employment opportunities for all groups, including for example consideration of local procurement to encourage engagement by local businesses.</p>

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	<p>National data also shows that groups including women, disabled people and people from Black and Minority Ethnic backgrounds have historically been underrepresented in the sector. There is therefore an opportunity to increase access to jobs in the construction sector for these groups, with the potential for beneficial differential effects.</p> <p>An Outline Skills and Employment Plan (SEP) will be produced and submitted with the DCO application which will set out measures to support the delivery of the socio-economic benefits of the Proposed Development. This represents an opportunity to work with local stakeholders and draw on Summer 2024 Consultation feedback to develop and embed actions that could increase access to construction employment for protected characteristic groups, both directly and in the supply chain.</p> <p>Further information will be provided in the EqIA Report to support the DCO application, drawing on the measures included in the Outline SEP. At this stage, it is considered that there is the potential for job opportunities created during the construction of the Proposed Development to result in beneficial differential effects for protected characteristic groups that may previously have been under-represented in the construction workforce, and the potential for beneficial</p>			

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	disproportionate and differential effects for young people in the Hampshire area.			
Training opportunities	<p>As well as direct and indirect employment, the construction of the Proposed Development would create opportunities for training and apprenticeships throughout the construction timeline. This represents an opportunity to address the issues related to an ageing construction workforce and skills shortages within the construction sector.</p> <p>There is also the potential for beneficial disproportionate and differential effects for young people, including those who may be NEET. As shown in the baseline, the proportion of young people classed as NEET rose sharply in Hampshire during the pandemic.</p> <p>There could also be beneficial differential effects for people from other protected characteristic groups that have tended to be under-represented in apprenticeship programmes in the construction and engineering sectors, including women, disabled people, and people from Black and Minority Ethnic groups (Census data shows that approximately 98% of construction workers within the study area are from White ethnic groups).</p> <p>The Outline SEP that will be produced for the DCO application provides an opportunity to draw on the findings from ongoing engagement with stakeholders and on Summer 2024 Consultation feedback to</p>	Young people (beneficial effect)	Young people (beneficial effect) Disabled people (beneficial effect) Women (beneficial effect) Black and Minority Ethnic groups (beneficial effect)	<p>Ongoing engagement with stakeholders and drawing on Summer 2024 Consultation feedback to understand barriers to training and apprenticeships in the construction sector, including low engagement and take-up among protected characteristic groups.</p> <p>Develop measures for inclusion in the Outline SEP that could address barriers and increase access to training and apprenticeship opportunities for all groups.</p>

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	<p>develop and embed actions that could increase access to apprenticeships and other training opportunities for protected characteristic groups.</p> <p>Further information will be provided in the EqIA Report to support the DCO application, drawing on the measures included in the Outline SEP. At this stage, it is considered that there is the potential for job opportunities created during the construction of the Proposed Development to result in beneficial differential effects for protected characteristic groups that may previously have been under-represented in the construction workforce, and the potential for beneficial disproportionate and differential effects for young people in the Hampshire area.</p>			
Access to residential properties	<p>PEI Report Chapter 12 Land use and agriculture (section 12.8), Volume I, identifies a number of areas in which access to residential properties could be temporarily affected by road or lane closures during construction of the Proposed Development. These are:</p> <ul style="list-style-type: none"> • Leigh Park • Havant • Bedhampton • Widley • Drayton • Colden Common 	None	None	None

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	<ul style="list-style-type: none"> • Lower Upham • Shedfield • Shirrell Heath • Wickham • Rural areas to the north of the B2177 Portsdown Hill Road. <p>While some protected characteristic groups may be more sensitive to delays, these effects are not considered to be significant in the PEI Report, and therefore it is not anticipated that there would be any disproportionate or differential effects for protected characteristic groups in these areas.</p>			
Impacts on community facilities and land – loss of land	<p>As discussed in the evidence review, access to open space for play and recreation is particularly important for children, and can have important well-being benefits for other groups including older people and disabled people. Local planning policies identified in Table 3-1, including for example policy DM1 of the Havant Core Strategy, restrict development on open space including play spaces and playing fields.</p> <p>PEI Report Chapter 12 Land use and agriculture (section 12.8) Volume I, reports that the construction of the proposed Underground Pipelines between the proposed WRP and Havant Thicket Reservoir would result in the temporary loss for a period of up to 18 months of</p>	<p>Children (including those training with Havant RFC) (adverse effect)</p> <p>Young people (including those training with Havant RFC) (adverse effect)</p>	<p>Children (including those training with Havant RFC) (adverse effect)</p> <p>Young people (including those training with Havant RFC) (adverse effect)</p> <p>Older people (adverse effect)</p> <p>Disabled people (adverse effect)</p>	<p>Continue to work with Havant RFC to understand the potential impact on their operations, including measures to reduce or avoid effects on training.</p> <p>Include measures within the Outline CEMP to maintain safe access for all users to unaffected areas of Staunton Country Park and Hooks Lane Recreation Ground.</p>

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	<p>recreational land at Staunton Country Park and Hooks Lane Recreation Ground, both of which are in Havant.</p> <p>At Staunton Country Park, a tunnel shaft and construction compound is proposed to be located in the south-west of the park, and there would be open cut tunnelling through the western side of the park. At Hooks Lane Recreation Ground, a tunnel shaft and construction compound are proposed to be located within the recreation ground, accessed from Hooks Lane.</p> <p>The effect at Staunton Country Park is assessed in the PEI Report as minor adverse and therefore not significant, as only a small portion of the land within the park would be affected and access to the remainder of the park, including facilities such as the visitor centre and car parking, would be maintained throughout.</p> <p>The effect at Hooks Lane Recreation Ground is assessed in the PEI Report as major adverse and therefore significant. While it is assumed that access to the unaffected areas of the recreation ground would be maintained throughout construction, there is a potential impact on training pitches used by Havant Rugby Football Club (RFC). Havant RFC has men's and women's teams, as well as junior and mini teams for children aged from under 6-16. While the main pitch and clubhouse would not be affected, there are a number of other grass rugby pitches on the recreation</p>			

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	<p>ground that it is assumed are used by Havant RFC for training.</p> <p>The nature and scale of the impact on the training pitches is not known at this time, and further information will be provided in the ES and in the EqlA Report to support the DCO application. At this stage, however, it is considered that there is the potential for a temporary, adverse disproportionate and differential effect for children training with Havant RFC as a result of the potential loss of land within the area used for training. The baseline shows that some areas of Havant including Warren Park and Battins have a higher than average proportion of children. There is also the potential for further temporary, adverse disproportionate and differential effects for children in Havant using this space for informal play and recreation, and an adverse differential effect for other protected characteristic groups including older people and disabled people for whom access to open space can be particularly important.</p>			
<p>Impacts on community facilities and land – access</p>	<p>PEI Report Chapter 12 Land use and agriculture (section 12.8), Volume I, identifies a number of community facilities where access could be temporarily affected by road or lane closures during construction of the Proposed Development. These are:</p> <ul style="list-style-type: none"> • Front Lawn Primary Academy • Havant Academy 	<p>None</p>	<p>Disabled people resident at or travelling to Albany Farm Care Home (adverse effect)</p>	<p>Continued engagement with operators of Albany Farm Care Home to understand the potential sensitivities of residents, the nature of the impacts, and any further measures that may be required to reduce the</p>

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	<ul style="list-style-type: none"> • Bidbury Infant School • Bidbury Junior School • St Thomas More’s Catholic Primary School • Staunton Country Park • Great Copse • Front Lawn Community Hub • Hooks Mead Recreation Ground • Wickham Church of England (CofE) Primary School • St John the Baptist CofE School • Colden Common Primary School • Happy Mindz Preschool and Daycare • Kids Love Nature Kindergarten • Boundary Oak School • Bright Horizons Fair Oak Day Nursery • Upham Village Hall • Wickham Community Centre. <p>While some protected characteristic groups may be more sensitive to delays and disruption, these effects are not considered to be significant in the PEI Report, and therefore it is not anticipated that there would be any disproportionate or differential effects for protected characteristic groups accessing these facilities.</p>			<p>potential for differential effects.</p>

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	<p>PEI Report Chapter 12 Land use and agriculture (section 12.8), Volume I, identifies a significant adverse effect on access to Albany Farm Care Home, a care home located off the A32 Wickham Road between Fareham and Wickham. Albany Farm Care Home provides short-term and long-term residential and respite care for up to six adults who may have learning disabilities, autism, or additional health needs. It is accessed from the A32 via Chalk Lane.</p> <p>Proposed IPS-F is proposed to be located on land approximately 290m east of Albany Farm Care Home. Access to the construction compound for proposed IPS-F is proposed to be via Chalk Lane and an existing access track which passes in front of the access to Albany Farm Care Home, approximately 40m from the care home building.</p> <p>Access to Albany Farm Care Home would be maintained at all times. However, there could be disruption to drivers accessing the care home due to construction traffic using Chalk Lane and the access track while the works are undertaken. While the profile of residents is not known at this stage, people with autism or learning disabilities could be more sensitive to disruption or changes to established schedules and routines as a result of any delay. It is therefore considered that there is the potential for a temporary adverse differential effect for residents of</p>			

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	Albany Farm Care Home as a result of the impact on Chalk Lane.			
Noise	<p>As discussed in the evidence review, protected characteristic groups including children, older people and disabled people, including those living with certain chronic health conditions, can be particularly sensitive to noise. There may, therefore, be the potential for these groups to experience differential effects as a result of construction noise impacts, where they are represented in the affected population. Gypsy and Traveller communities can also be more sensitive to noise due to greater transference of noise through trailer and caravan walls.</p> <p>PEI Report Chapter 15 Noise and vibration (section 15.8), Volume I, reports residual significant adverse night-time noise effects for residents in some areas close to construction compounds, associated with tunnelling and trenchless crossing activity. Areas where residents could experience effects include parts of Fair Oak, Highbridge, Brambridge, Otterbourne, Shirrell Heath, Shedfield, Bishops Waltham, Curdrige, Durley, Fareham, Wickham, and Leigh Park.</p> <p>The ward level baseline shows that some of these areas, particularly around Bishops Waltham and the Central and Upper Meon Valley, have above average proportions of residents in older age groups, and there is therefore the potential for an adverse disproportionate effect. However, the precise</p>	None	<p>Children living in affected properties (adverse effect)</p> <p>Older people living in affected properties (adverse effect)</p> <p>Disabled people living in affected properties (adverse effect)</p>	<p>Further assessment and engagement to understand likely noise effects for protected characteristic groups, taking into account measures included in the preliminary Outline CEMP and any further mitigation identified by the final Noise and vibration assessment.</p> <p>Further assessment and engagement with local planning authorities required to understand potential noise effects for Gypsy and Traveller communities.</p>

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	<p>demographic profile of affected residents is not known. There could be temporary, adverse differential effects for children, older people and disabled people where they are resident in affected properties.</p> <p>It is not known at this stage whether any Gypsy and Traveller pitches would be affected. Further information will be provided in the EqlA Report to support the DCO application.</p>			
Visual impacts	<p>Some groups of disabled people, including people with autism, can be more sensitive to changes in their environment, including in the visual environment. There may, therefore, be the potential for disabled people, including people with autism, to experience differential effects as a result of visual impacts, where they are resident in affected properties or regular users of community facilities that could be impacted by visual changes.</p> <p>No equality effects have been identified at this stage. However, this will be kept under review and further research will be undertaken for the EqlA Report to support the DCO application to identify any resources used by relevant protected characteristic groups that could experience significant changes in their visual environment, where there could be the potential for differential equality effects.</p>	None	Disabled people living in affected properties (adverse effect)	Further research and engagement to identify any resources used by protected characteristic groups that could be more sensitive to changes in the visual environment.
Changes in air quality	As discussed in the evidence review, protected characteristic groups including	None	None	None

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	<p>children, older people and disabled people, including those living with certain chronic health conditions, can be particularly sensitive to changes in air quality. Some protected characteristic groups, including Gypsy and Traveller communities and other Black and Minority Ethnic groups, can be more likely to live in areas with poor air quality and high levels of pollution.</p> <p>PEI Report Chapter 6 Air quality and odour (section 6.8), Volume I, assesses the potential for effects on air quality during construction as a result of construction dust and emissions, non-road mobile machinery (NRMM) emissions, or construction traffic for human receptors within 250m of the Proposed Development, and concludes that, after mitigation, there would be no significant adverse effects. Therefore, it is not considered likely that the construction of the Proposed Development would result in any adverse differential or disproportionate effects for protected characteristic groups.</p>			
Transport impacts	<p>Access to community facilities, open space and employment could be impacted by temporary road or lane closures on the local road network, disruption to public transport routes, impacts on PRow and pedestrian routes, or by the presence of construction traffic on local roads. As discussed in the evidence review, protected characteristic groups including children, young people, older people, disabled people, and people</p>	<p>Children (adverse effect) Young people (adverse effect) Older people (adverse effect) Disabled people (adverse effect)</p>	<p>Children (adverse effect) Young people (adverse effect) Older people (adverse effect) Disabled people (adverse effect)</p>	<p>Development of the Outline CEMP to include measures to support access to diverted PRow for protected characteristic groups, including consideration of wayfinding, surfaces, and use of gates etc.</p>

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	<p>from an ethnic minority background can be more likely to use public transport than other groups of the population, while some groups including children can be more likely to experience differential effects as a result of severance, road safety concerns associated with the presence of construction traffic on local roads, and impacts on PRoW and other pedestrian routes. Delays for road users also have the potential to result in differential effects for children and for disabled people accessing schools and other community facilities.</p> <p>PEI Report Chapter 18 Traffic and transport (section 18.8), Volume I, reports that there could be significant adverse effects on drivers, bus passengers, pedestrians, cyclists and horse riders on certain routes as a result of delays due to temporary road or lane closures associated with construction activity. Where it is considered that delays for road users have the potential to impact on access to particular community facilities, this is discussed under 'Impacts on community facilities and land – access' above. More generally, delays for bus users could result in temporary, adverse disproportionate effects for children, young people, older people, disabled people and people from ethnic minority backgrounds. Impacts on horse riders could result in temporary, adverse disproportionate effects for women, who are disproportionately represented among horse riders, and, potentially, temporary adverse</p>	<p>Black and Minority ethnic groups (adverse effect) Women (adverse effect)</p>	<p>Black and Minority ethnic groups (adverse effect) Women (adverse effect) Pregnant women and mothers of babies under six months (adverse effect)</p>	<p>Further assessment and engagement with affected stakeholders required to understand potential effects for users of equestrian centres offering Riding for the Disabled provision.</p>

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	<p>differential effects for disabled people, should affected routes be used by equestrian centres providing Riding for the Disabled classes.</p> <p>PEI Report Chapter 18 Traffic and transport (section 18.8), Volume I, also reports that there could be significant adverse effects for pedestrians using PRoW as a result of delays associated with temporary closures and diversions. This could result in temporary, adverse differential effects for groups that may find that increased travel distances and changes in wayfinding present a barrier to their use of these routes for recreation, including children, disabled people, older people, pregnant women and mothers of babies under six months.</p> <p>PEI Report Chapter 18 Traffic and transport (section 18.8), Volume I, does not report any significant adverse effects associated with construction traffic; severance; amenity, fear and intimidation; accidents and safety, or hazardous loads, and therefore it is not anticipated that there would be any differential or disproportionate effects for protected characteristic groups. Further information on construction traffic routes will be provided in the ES and EqIA Report to support the DCO application.</p>			
Safety and security	As discussed in the evidence review, safety around construction sites can be a particular concern for children. The construction of the Proposed Development would require	None	Children (adverse effect) Older people (adverse effect)	Development of the Outline CEMP to include measures to reduce risk and perceptions of

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	<p>approximately 40 construction compounds, some of which would be located in densely populated urban areas in Havant, for example in Staunton Country Park and at Hooks Lane Recreation Ground. There is therefore a potential temporary, adverse differential effect for children as a result of the potential safety risks associated with construction sites, including as a result of HGVs entering and leaving sites as well as the risks on the sites themselves.</p> <p>Disabled people and older people could also potentially experience greater levels of risk associated with HGVs and with associated changes in the pedestrian environment which could make wayfinding more difficult. Other protected characteristic groups including women can be more likely to experience concerns about their personal safety when walking alone or in unfamiliar environments. There could therefore be a risk of further temporary, adverse differential effects for these groups as a result of the presence of construction sites and activity and changes in the pedestrian environment in urban areas.</p> <p>HSE guidance on health and safety on construction sites [68] highlights the importance of measures such as maintaining a secure site, using barriers or covering excavations and pits, isolating and immobilising vehicles and plant, storing building materials securely, removing ladders, and locking away hazardous</p>		<p>Disabled people (adverse effect)</p> <p>Women (adverse effect)</p>	<p>risk for protected characteristic groups.</p> <p>Consider engagement with local schools to raise awareness of the risks associated with construction sites and activity.</p>

Impact	Description of impacts, potential equality effect/s and actions	Groups that could experience disproportionate effects	Groups that could experience differential effects	Recommended actions
	<p>substances. The Outline CEMP that will be produced for the DCO application will set out measures to ensure safety in and around construction compounds. This should include consideration of, for example, hoardings, lighting, pedestrian access across site entrances, security, and emergency contact details. Further information will be provided for the EqIA Report to support the DCO application.</p>			

7.2 Operation

7.2.1 Table 7-2 sets out the assessment of potential equality effects that could arise during the operation phase of the Proposed Development, and the actions that could be put in place to support the delivery of beneficial effects. These actions will be developed into an Action Plan for inclusion in the EqIA Report to support the DCO application.

Table 7-2 Assessment of equality effects during operation

Impact	Description of potential equality effect/s	Identified disproportionate effects	Identified differential effects	Recommended actions
Employment	<p>PEI Report Chapter 17 Socio-economics, tourism and health (section 17.8), Volume I, estimates that the operation of the proposed WRP could create approximately eight FTE jobs on site, with up to 30 jobs supported across the Proposed Development as a whole. These would be new jobs, employed either by the Applicant or by an Appointed Provider.</p> <p>The effect in terms of operational employment is not considered to be significant in EIA terms, and there is therefore unlikely to be a differential or disproportionate effect for protected characteristic groups. It is recommended, however, that the Outline SEP should include measures that could support access to these jobs for</p>	None	None	Develop measures for inclusion in the Outline SEP that could address barriers and increase access to employment opportunities for all groups.

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Impact	Description of potential equality effect/s	Identified disproportionate effects	Identified differential effects	Recommended actions
	protected characteristic groups, including young people, disabled people, women and people from Black and Minority Ethnic groups.			
Training opportunities	<p>The operation of the Proposed Development may also create opportunities for training and apprenticeships, at the proposed WRP and in maintenance activities.</p> <p>At this stage it is considered that it is unlikely that this would result in a differential or disproportionate effect for protected characteristic groups. It is recommended, however, that the Outline SEP should include measures that could support access to these jobs for protected characteristic groups, including young people, disabled people, women and people from Black and Minority Ethnic groups. Further information will be provided in the EqIA Report to support the DCO application, drawing on information gathered for the Outline SEP.</p>	None	None	Develop measures for inclusion in the Outline SEP that could address barriers and increase access to training opportunities for all groups.

8 Summary and next steps

8.1 Assessment summary

8.1.1 In summary, the EqlA has identified the following potential disproportionate and differential effects for protected characteristic groups that could arise during the construction of the Proposed Development:

Table 8-1 Summary of disproportionate and differential effects identified during construction

Category of effect	Impact	Protected characteristic group affected	Extent of effect
Disproportionate effects			
Employment and training opportunities	Creation of new jobs	Young people (beneficial effect)	Local planning authorities in the study area; sub-regional
	Training and apprenticeship opportunities	Young people (beneficial effect)	Local planning authorities in the study area; sub-regional
Direct impacts on community facilities and land used by protected characteristic groups	Temporary loss of land at Hooks Mead Recreation Ground (proposed Underground Pipelines between the proposed WRP and Havant Thicket Reservoir only)	Children (adverse effect)	Study area; those training with Havant RFC
		Young people (adverse effect)	Study area; those training with Havant RFC
Transport impacts including severance, impacts on public transport, PRow and pedestrian routes	Temporary delays for bus users	Children (adverse effect)	Those using affected routes
		Young people (adverse effect)	Those using affected routes
		Older people (adverse effect)	Those using affected routes
		Disabled people (adverse effect)	Those using affected routes
		Black and Minority ethnic groups (adverse effect)	Those using affected routes
	Temporary delays for horse riders	Women (adverse effect)	Those using affected routes

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Category of effect	Impact	Protected characteristic group affected	Extent of effect
Differential effects			
Employment and training opportunities	Creation of new jobs	Young people (beneficial effect)	Local planning authorities in the study area; sub-regional
		Disabled people (beneficial effect)	Local planning authorities in the study area; sub-regional
		Women (beneficial effect)	Local planning authorities in the study area; sub-regional
		People from Black and Minority Ethnic backgrounds (beneficial effect)	Local planning authorities in the study area; sub-regional
	Training and apprenticeship opportunities	Young people (beneficial effect)	Local planning authorities in the study area; sub-regional
		Disabled people (beneficial effect)	Local planning authorities in the study area; sub-regional
		Women (beneficial effect)	Local planning authorities in the study area; sub-regional
		People from Black and Minority Ethnic backgrounds (beneficial effect)	Local planning authorities in the study area; sub-regional
Direct impacts on community facilities and land used by protected characteristic groups	Temporary loss of land at Hooks Mead Recreation Ground (proposed Underground Pipelines between the proposed WRP and Havant Thicket Reservoir only)	Children (adverse effect)	Study area; those training with Havant RFC
		Young people (adverse effect)	Study area; those training with Havant RFC
		Older people (adverse effect)	Study area
		Disabled people (adverse effect)	Study area

Category of effect	Impact	Protected characteristic group affected	Extent of effect
	Disruption to access at Albany Farm Care Home	Disabled people (adverse effect)	Residents of and visitors to Albany Farm Care Home
Noise impacts on residential communities or community facilities used by protected characteristic groups	Temporary noise impacts on residential properties	Children (adverse effect)	Affected properties
		Older people (adverse effect)	Affected properties
		Disabled people (adverse effect)	Affected properties
Transport impacts including severance, impacts on public transport, PRow and pedestrian routes	Temporary delays for horse riders	Disabled people (adverse effect)	Those using affected routes
	Temporary disruption to PRow and pedestrian routes	Children (adverse effect)	Those using affected routes
		Older people (adverse effect)	Those using affected routes
		Disabled people (adverse effect)	Those using affected routes
		Pregnant women (adverse effect)	Those using affected routes
		Mothers of babies under six months (adverse effect)	Those using affected routes
Safety and security	Safety risks associated with construction sites	Children (adverse effect)	Study area
		Children (adverse effect)	Study area
	Safety risks and perceptions of risk associated with HGV traffic and changes in the pedestrian environment	Older people (adverse effect)	Study area
		Disabled people (adverse effect)	Study area
		Women (adverse effect)	Study area

8.1.2 With the exception of those related to skills and training opportunities, all equality effects arising during construction are temporary in nature and would be relatively short-term (i.e. they would not be for the entirety of the construction period). The assessment has not identified any potential disproportionate or differential equality effects associated with the operation of the Proposed Development. However, it does identify actions that could be put in place to support the delivery of the employment and training opportunities associated with both the construction and operational phases, and enhance the potential beneficial effects for protected characteristic groups.

8.2 Next steps

8.2.1 The next steps for the EqIA are:

- Continued updates to baseline, drawing on published data sources, online mapping and information received through stakeholder engagement and consultation, to understand the representation of protected characteristic groups in the population of the study area and to identify resources that are used by protected characteristic groups.
- Continued engagement with Community EIA Working Group and affected stakeholders, including representatives of protected characteristic groups and community facilities that could be directly impacted, to understand potential disproportionate or differential effects and to identify appropriate measures to address any adverse effects.
- Continued review of EIA findings and outputs to understand the potential for disproportionate and differential effects for protected characteristic groups.
- Development of Action Plan setting out identified actions to address adverse effects for protected characteristic groups and to support the delivery of positive effects.
- Development of the Outline CEMP to identify measures to support safety in and around construction sites for protected characteristic groups and to reduce environmental impacts from construction.
- Development of the Outline SEP to include measures that could support the delivery of some of the economic and social benefits of the Proposed Development, including access to new jobs and training opportunities for protected characteristic groups.

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from
Southern
Water. 

The logo graphic for Southern Water, featuring three stylized, white, wavy lines that resemble water or a wave, positioned to the right of the word "Water".

F.12 Section 48 notice

Hampshire Water Transfer and Water Recycling Project

Notice publicising a proposed application for a Development Consent Order

Regulation 4 Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

1. Notice is hereby given that Southern Water Services Limited (Company number 02366670) (“the Applicant”) of Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX intends to make an application to the Secretary of State for Environment, Food and Rural Affairs under Section 37 of the Planning Act 2008 for a Development Consent Order (“DCO”). The DCO, if granted, would authorise the construction, operation, maintenance and decommissioning of the Hampshire Water Transfer and Water Recycling Project (the “Project”).
2. The Project would use advanced treatment techniques to turn highly treated wastewater, that is usually pumped far out to sea, into purified recycled water at a new water recycling plant in Havant. This purified recycled water would be pumped via an underground pipeline to the Havant Thicket Reservoir where it would mix with spring water. Water from the reservoir would then be pumped along another pipeline to our Otterbourne Water Supply Works where it would be treated to strict drinking water standards before being sent into supply.

The Project includes:

- Proposed water recycling plant and associated pumping stations
- Proposed underground pipelines between Budds Farm Wastewater Treatment Works and the Water Recycling Plant
- Proposed underground pipeline between the water recycling plant and Havant Thicket Reservoir
- Proposed underground pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works, via a pumping station at the water recycling plant
- Proposed pipelines between the water recycling plant and Bedhampton Springs
- Proposed above ground plant comprising intermediate pumping stations and break pressure tanks located along the underground pipeline between the water recycling plant and Otterbourne
- Use of the Havant Thicket Reservoir for the storage of recycled water
- Use of the existing Eastney Long Sea Outfall for the release of reject water
- Other associated and ancillary development.

3. The proposed DCO would also authorise:
 - The compulsory acquisition of land and/or rights and the taking of temporary possession of land;
 - The overriding of easements and other rights over or affecting land;
 - Use of pipelines that are being proposed separately by Portsmouth Water between Bedhampton Springs and Havant Thicket Reservoir;
 - The application and/or disapplication of legislation relating to the Project; and,
 - Such ancillary, incidental and consequential provisions, licences, property rights, permits and consents as are necessary and/or convenient.
4. The Project is an Environmental Impact Assessment (“EIA”) development for the purposes of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. This means that the proposed works constitute development for which an EIA is required and the application for a DCO will therefore be accompanied by an Environmental Statement. The Environmental Statement will provide a detailed description of the Project and its likely significant environmental effects.
5. Information compiled so far about the Project’s likely significant environmental effects is set out for consultation (see below) in a Preliminary Environmental Information Report (“the PEI Report”) and summarised in a Non-Technical Summary.

The consultation

6. The Applicant is undertaking statutory consultation on the Project from **29 May 2024 to 23 July 2024**.
7. During this time, a copy of the PEI Report, together with a Non-Technical Summary of the PEI Report, a Statement of Community Consultation (SoCC), and other consultation documents, plans and maps showing the nature and location of the Project and which explain the Applicant’s consultation process and details of the Project (together, the “Consultation Documents”) may be viewed on the Project’s website at: www.HampshireWTWRP.co.uk/feedback.html. The Consultation Documents will be available to read, download and print from 29 May 2024 to 23 July 2024.

8. The Consultation Documents are also available for inspection free of charge at the following deposit locations from 29 May 2024 to 23 July 2024:

Bishop's Waltham Library

Free Street, Bishop's Waltham, Southampton, SO32 1EE

Cosham Library

Spur Road, Cosham, Portsmouth, PO6 3EB

Eastleigh Library

1 Swan Centre, Eastleigh, SO50 5SF

Fair Oak Community Library

Campbell Way, Fair Oak, Eastleigh, SO50 7AX

Fareham Library

Osborn Road, Fareham, PO16 7EN

Havant Library

Havant Meridian Centre, Havant, PO9 1UN

Leigh Park Library

50 Park Parade, Leigh Park, Havant, PO9 1UN

Paulsgrove Library

Paulsgrove Youth Community Centre, Marsden Road, Portsmouth, PO6 4JB

Waterlooville Library

The Precinct, Waterlooville, PO7 7DT

9. The Applicant will also host drop-in events to provide opportunities to speak with members of the project team and view the Consultation Documents. The details of the events are as follows:

Monday 10 June 2pm-8pm	Havant Rugby Football Club, Hooks Lane Ground, Fraser Road, Havant, Hampshire, PO9 3EJ
Saturday 15 June 10am-4pm	Meridian Shopping Centre, Elm Lane, Havant, PO9 1UN
Thursday 20 June 2pm-8pm	Southwick D-Day Memorial Hall, Priory Road, Southwick, PO17 6ED
Saturday 22 June 10am-4pm	Jubilee Hall, Little Shore Lane, Bishop's Waltham, SO32 1ED
Thursday 27 June 2pm-8pm	Colden Common Community Centre, Saint Vigor Way, Colden Common, SO21 1UU
Friday 28 June 2pm-8pm	Wickham Community Centre, Mill Lane, Wickham, PO17 5AL

10. These drop-in events offer an opportunity to find out more about the Project and attendees do not need to register in advance to attend.
11. For further information or queries on the Consultation Documents, please call **0800 254 5138** (free of charge); write to **FREEPOST HAMPSHIRE WTWRP CONSULTATION** (no stamp required); email HampshireWTWRP@southernwater.co.uk or visit www.HampshireWTWRP.co.uk.

To obtain copies of documents

12. All Consultation Documents are available to read, download and print on the Project's website at: www.HampshireWTWRP.co.uk/feedback.html. These will be available until at least 23 July 2024.

13. To ensure accessibility, on request, documents can also be translated, made available in large print, audio versions, braille and in a digital data format.
14. Hard copies of the Consultation Documents can be provided at a fee: £350 for all Consultation Documents including the PEI Report, or £100 for all Consultation Documents excluding the PEI Report.

How to respond

15. All responses or representations in respect of the Project must be received by the Applicant on or before 11.59pm on 23 July 2024.
16. Feedback can be provided through the Applicant's website at www.HampshireWTWRP.co.uk, by email at FeedbackHWTWRP@southernwater.co.uk or by post to **FREEPOST HAMPSHIRE WTWRP CONSULTATION**. Hardcopy feedback forms will also be available by request at public information events or at the public document inspection locations.
17. Any responses to or other representations in respect of the Project can also be sent to the applicant by email FeedbackHWTWRP@southernwater.co.uk or by post (free of charge) to **FREEPOST HAMPSHIRE WTWRP CONSULTATION**.
18. The Applicant will consider and have regard to all responses received on or before 11.59pm on 23 July 2024 when developing its application for a DCO once consultation has closed. Responses will form the basis of a Consultation Report that will be submitted as part of the Applicant's application for a DCO. Therefore, in providing any comment, it should be borne in mind that the substance of it may be communicated to others as part of the Consultation Report.
19. Any comments received will be analysed by the Applicant and any of its appointed agents. Copies may be made available in due course to the Secretary of State, the Planning Inspectorate and other relevant statutory authorities so that your responses can be considered as part of the development of the Project. Your personal details will not be placed on public record except where this is required in accordance with legislation or legal duty such as land referencing, but will be held securely by the Applicant and its appointed agents in accordance with the General Data Protection Regulation (GDPR), the Planning Inspectorate's Customer Privacy Notice and the Data Protection Act 2018. Personal details will be used solely in connection with the consenting and regulatory processes, except as noted above, or in accordance with any legal requirements or process, and will not be passed to third parties.
20. If you would like further information about this notice, the consultation or the Project, please contact the Applicant by using one of the contact methods provided above.



F.13 Brochure clarification



Brochure clarification

On page 65, section 7. **Project benefits and legacy**, subheading **River habitat enhancements**, the wording...

Until the Project is delivered, we've agreed with the Environment Agency that we will continue to rely on the Rivers Test and Itchen for public water supplies during a drought. In case a drought occurs, we have committed to a £10m suite of environmental improvements that are designed to help offset any Environmental impact that may occur. While not a direct benefit of the Project, the enhancements are part of a wider commitment to protect the environment.

These improvements include wildlife monitoring, river restoration and enhancement projects and a captive breeding programme for white-clawed crayfish. The projects are being developed and delivered by partners at Wessex Rivers Trust & Hampshire & Isle of Wight Wildlife Trust and the Environment Agency.

Has been replaced with the following updated wording...

Until 2030, we have an agreement with the Environment Agency (called a section 20 Agreement) to continue to rely on the Rivers Test and Itchen for public water supplies, if needed, during a drought. In case a drought occurs during this period, we have committed to a £10m suite of environmental improvements that are designed to help offset any environmental impact that may occur. While not a direct benefit of the Project, the enhancements are part of a wider commitment to protect the environment.*

These improvements include wildlife monitoring, river restoration and enhancement, and a captive breeding programme for white-clawed crayfish. The projects are being developed and delivered by partners at Wessex Rivers Trust, Hampshire & Isle of Wight Wildlife Trust and the Environment Agency.

** Our section 20 Agreement with the Environment Agency covers our ability to abstract water from the Rivers Test and Itchen during a drought (called drought orders and permits) in order to address any shortage in public water supplies. This agreement was signed in 2018 and expires in 2030. Any abstractions after this point to address any shortfalls in water supply during drought conditions will require further formal agreement from the Environment Agency.*

Please refer to our Frequently Asked Question 'Q3: How long will you continue to take water from Hampshire's chalk stream rivers?' for further information.

F.14 Social media

Facebook Feed



Instagram Stories



Facebook Stories



Facebook video feeds



Instagram Explore



Southern Water Sponsored

Hampshire, it's time to have your say on the future of water. Our 2024 Consultation is now open and gives you the opportunity ...see more



Our Summer 2024 Consultation is now open!

Share your thoughts via email, phone, post or online.

Hampshire, have your say! [Learn more](#)

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Hampshire Water Transfer and Water Recycling Project - Summer 2024
Consultation: 29 May 2024 - 23 July 2024

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Hampshire, it's time to have your say on the future of water. Our 2024... [More](#)

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Hampshire, have your say!

East is water-stressed? That's why we're looking for new ways to meet the water demand.



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Our Summer 2024 Consultation is now open!

Did you know the East of England is water-stressed? That's why we're looking for new ways to meet the water demand.

See More

Hampshire, it's time to have your say on the future of water. Our 2024... [see more](#)

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Our Summer 2024 Consultation is now open!

Share your thoughts via email, phone, post or online.



Hampshire Water Transfer and Water Recycling Project - Summer 2024
Consultation: 29 May 2024 - 23 July 2024

[Learn more](#)

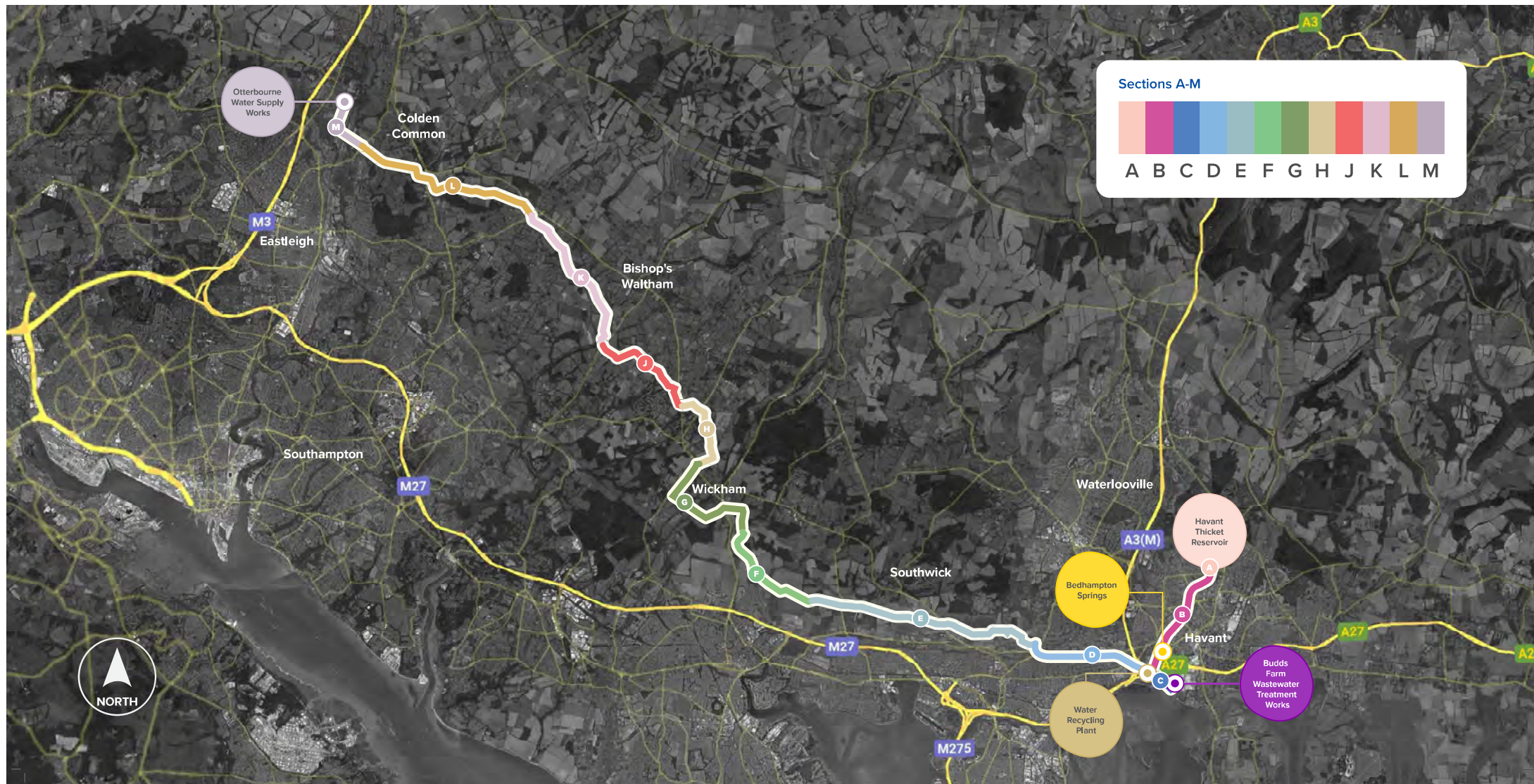
F.15 Public exhibition boards

Hampshire Water Transfer and Water Recycling Project

Proposed pipeline routes




from Southern Water




Hampshire Water Transfer and Water Recycling Project


Proposed pipeline routes

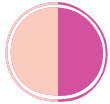
Key

 Draft Order Limits
(the maximum extent of land the Project would be delivered within)

 Draft Limits of Deviation for the pipelines
(the maximum limits within which the pipelines would be located)

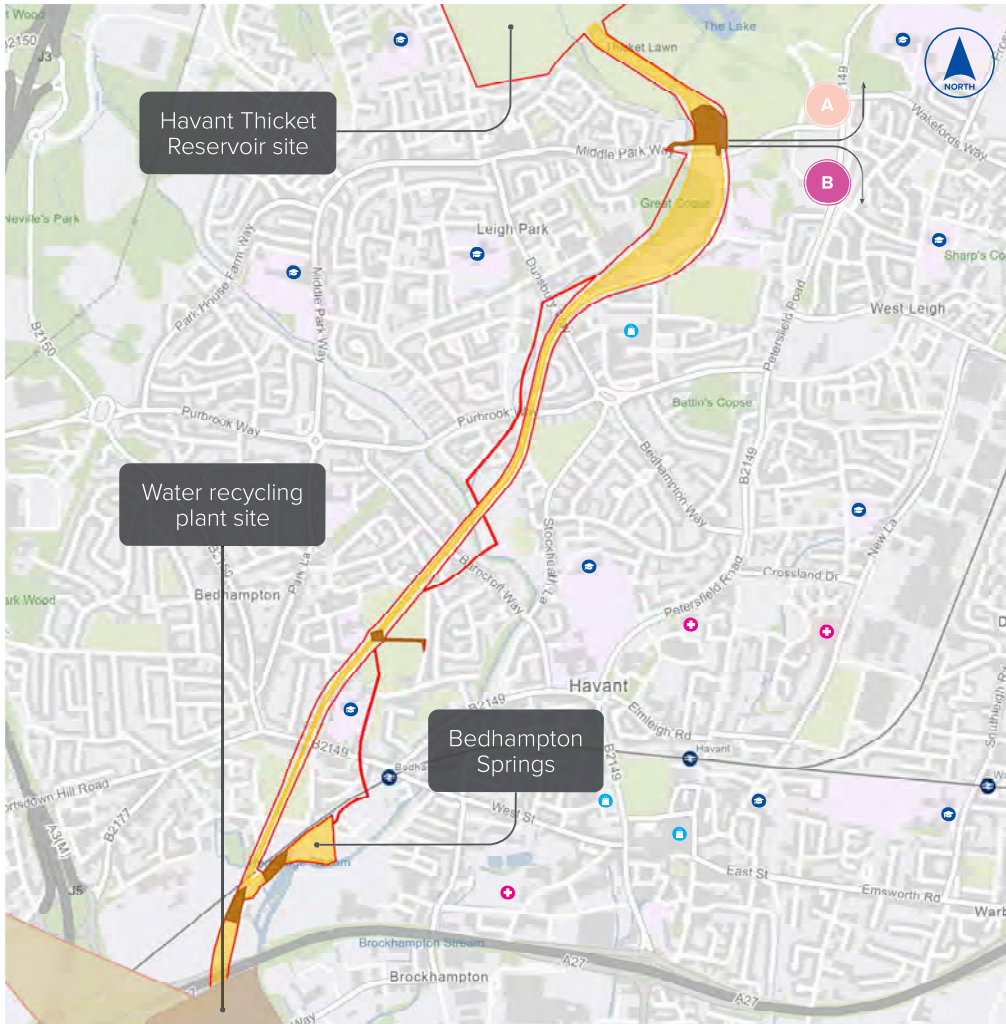
 Construction Compounds

 Draft Limits of Deviation for the above ground plant
(the maximum limits within which the above ground plant would be located)



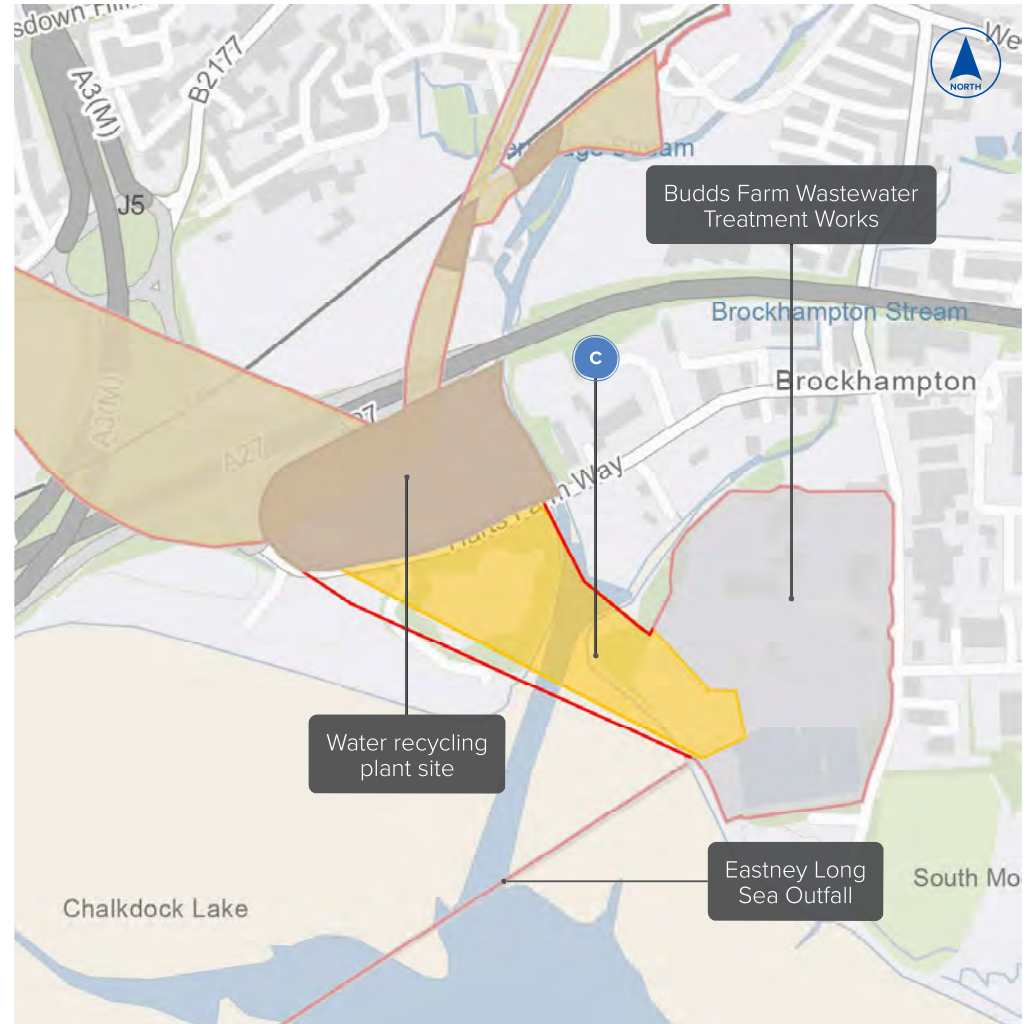
Section A and Section B:

Between the water recycling plant and the Havant Thicket Reservoir



Section C:

Between Budds Farm Wastewater Treatment Works and the water recycling plant



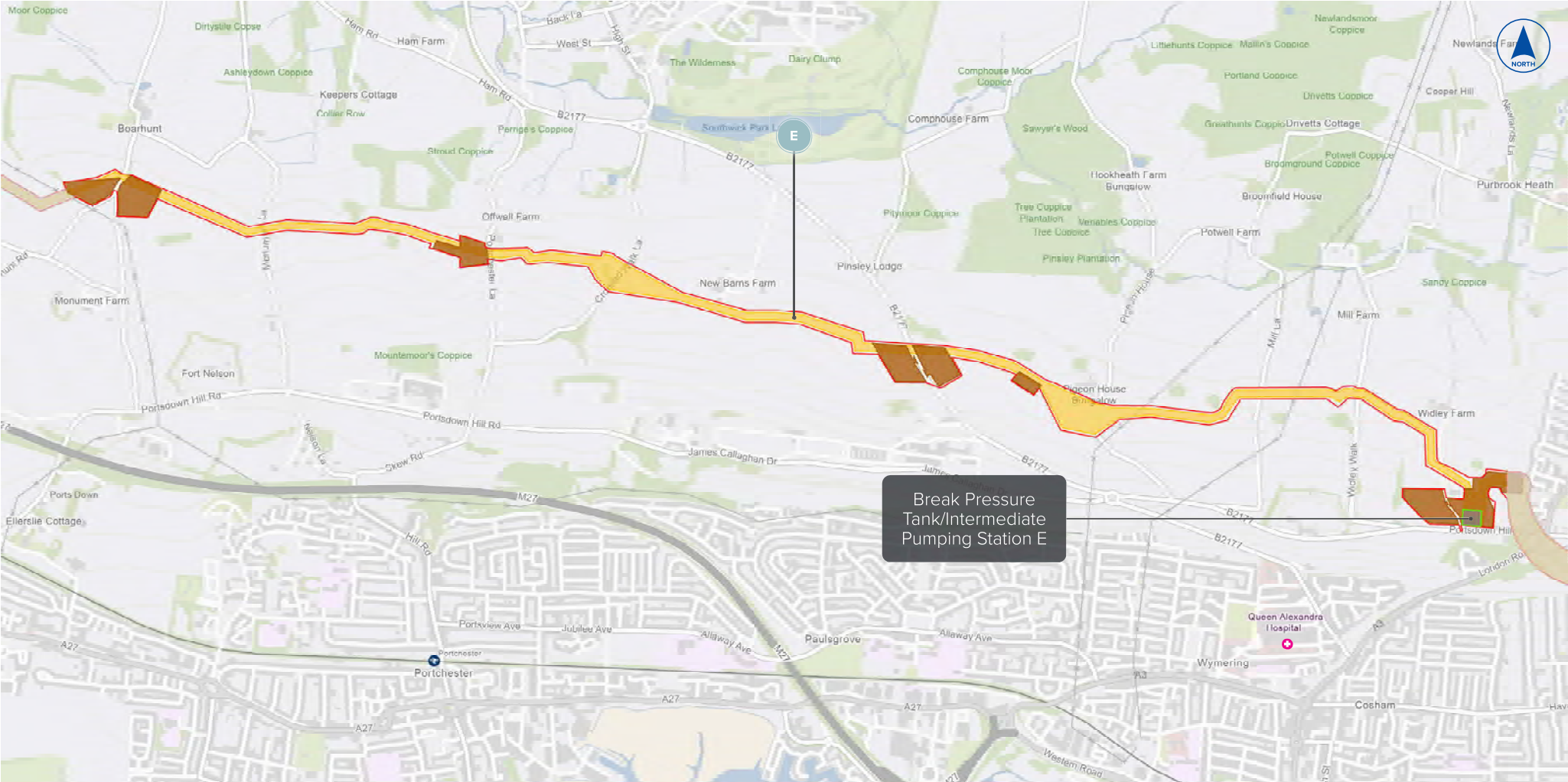
Hampshire Water Transfer and Water Recycling Project

Proposed pipeline routes

- Key**
- Draft Order Limits (the maximum extent of land the Project would be delivered within)
 - Draft Limits of Deviation for the pipelines (the maximum limits within which the pipelines would be located)
 - Construction Compounds
 - Draft Limits of Deviation for the above ground plant (the maximum limits within which the above ground plant would be located)



Section E:
Portsmouth Hill to Boarhunt





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Hampshire Water Transfer and Water Recycling Project


Proposed pipeline routes

Key

 Draft Order Limits
(the maximum extent of land the Project would be delivered within)

 Draft Limits of Deviation for the pipelines
(the maximum limits within which the pipelines would be located)

 Construction Compounds

 Draft Limits of Deviation for the above ground plant
(the maximum limits within which the above ground plant would be located)



Section F:

Boarhunt to Crockerhill



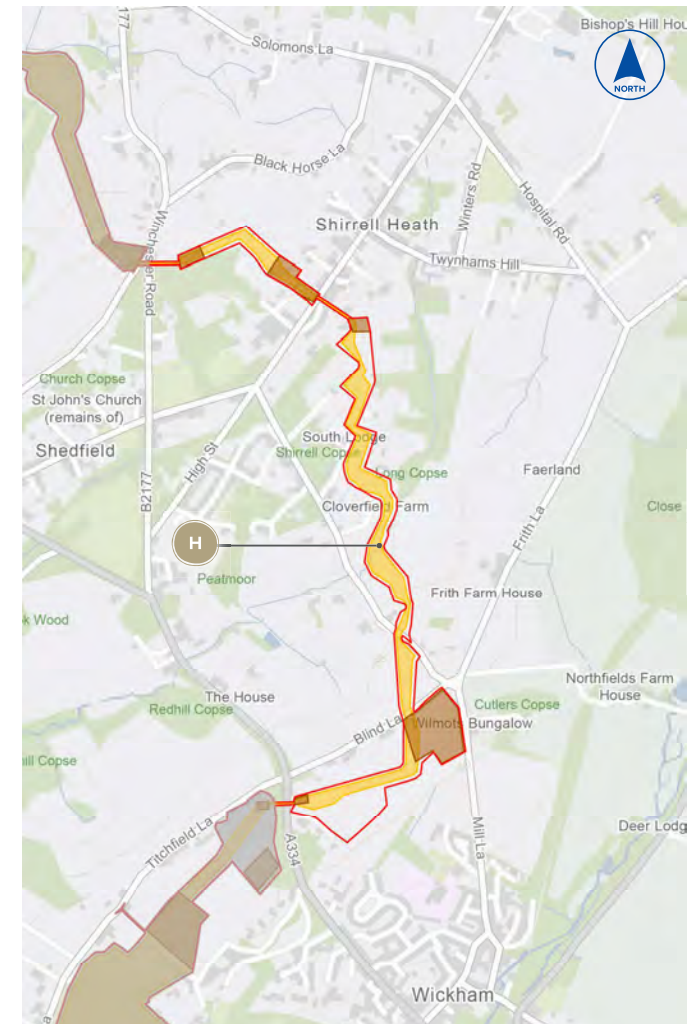
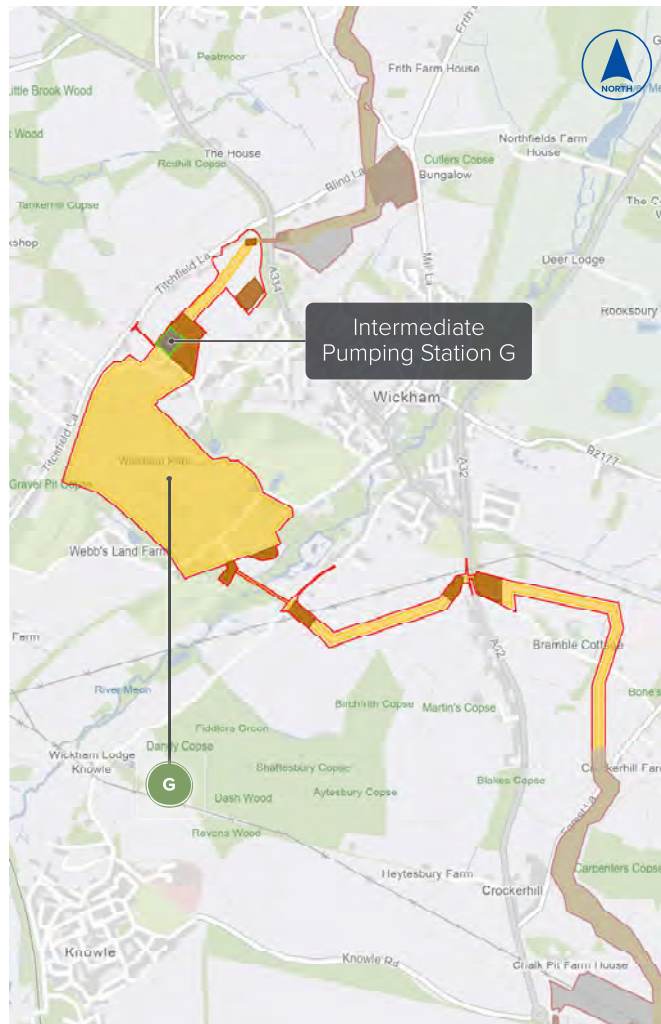
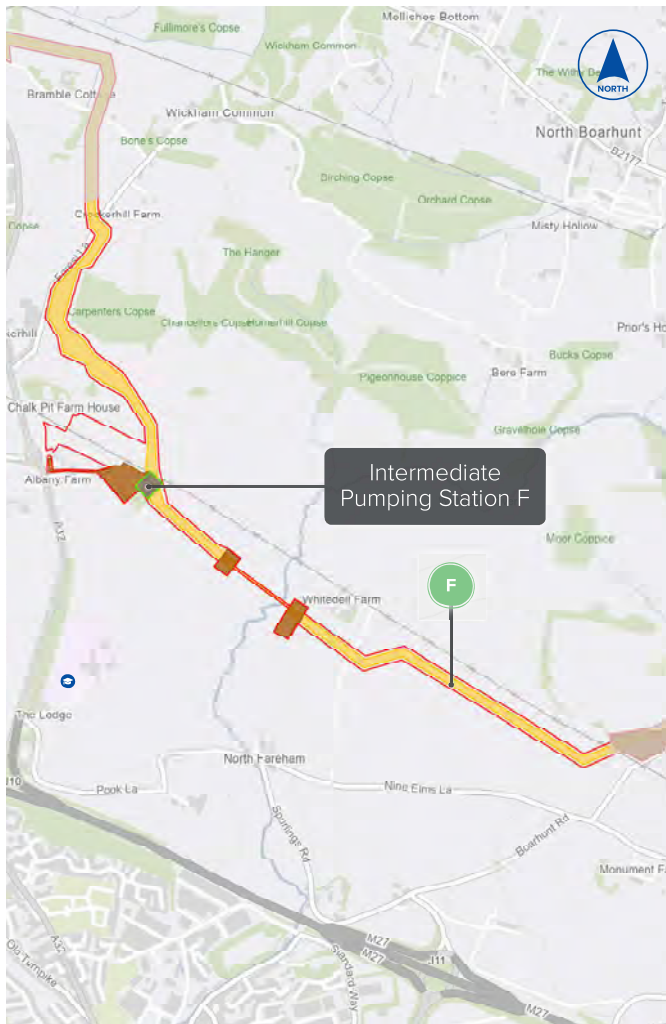
Section G:

Crockerhill to Wickham



Section H:


Wickham to Shedfield




Hampshire Water Transfer and Water Recycling Project


Proposed pipeline routes

Key

 Draft Order Limits
(the maximum extent of land the Project would be delivered within)

 Draft Limits of Deviation for the pipelines
(the maximum limits within which the pipelines would be located)

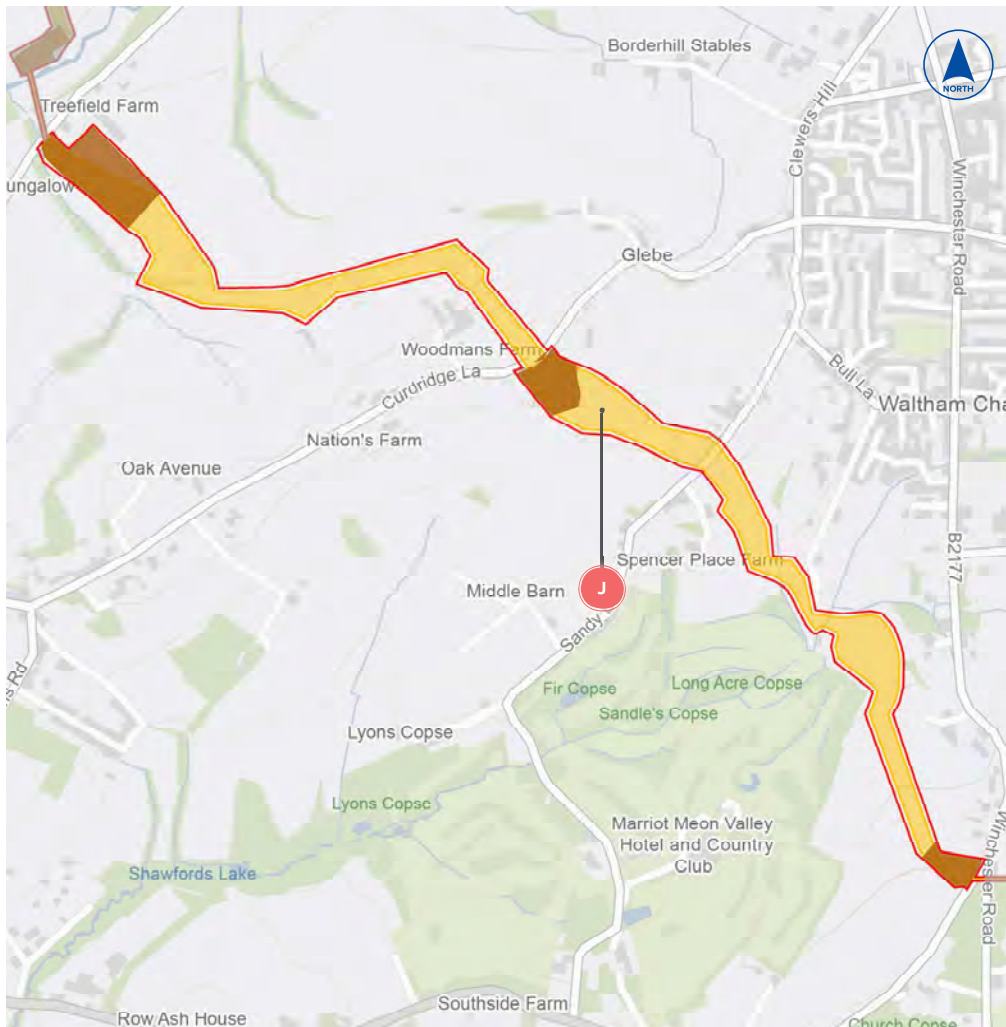
 Construction Compounds

 Draft Limits of Deviation for the above ground plant
(the maximum limits within which the above ground plant would be located)



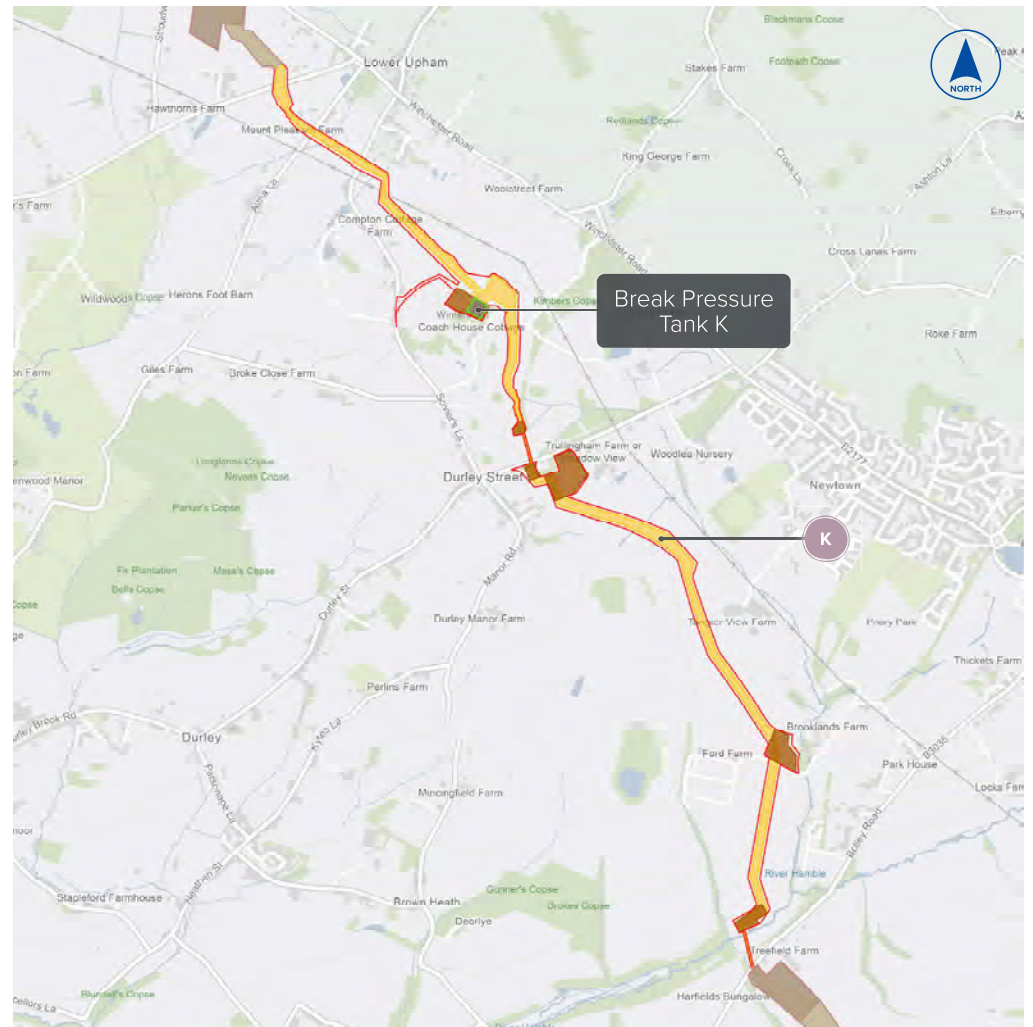
Section J:

Shedfield to the River Hamble



Section K:


The River Hamble to Lower Upham




Hampshire Water Transfer and Water Recycling Project


Proposed pipeline routes

Key

 Draft Order Limits
(the maximum extent of land the Project would be delivered within)

 Draft Limits of Deviation for the pipelines
(the maximum limits within which the pipelines would be located)

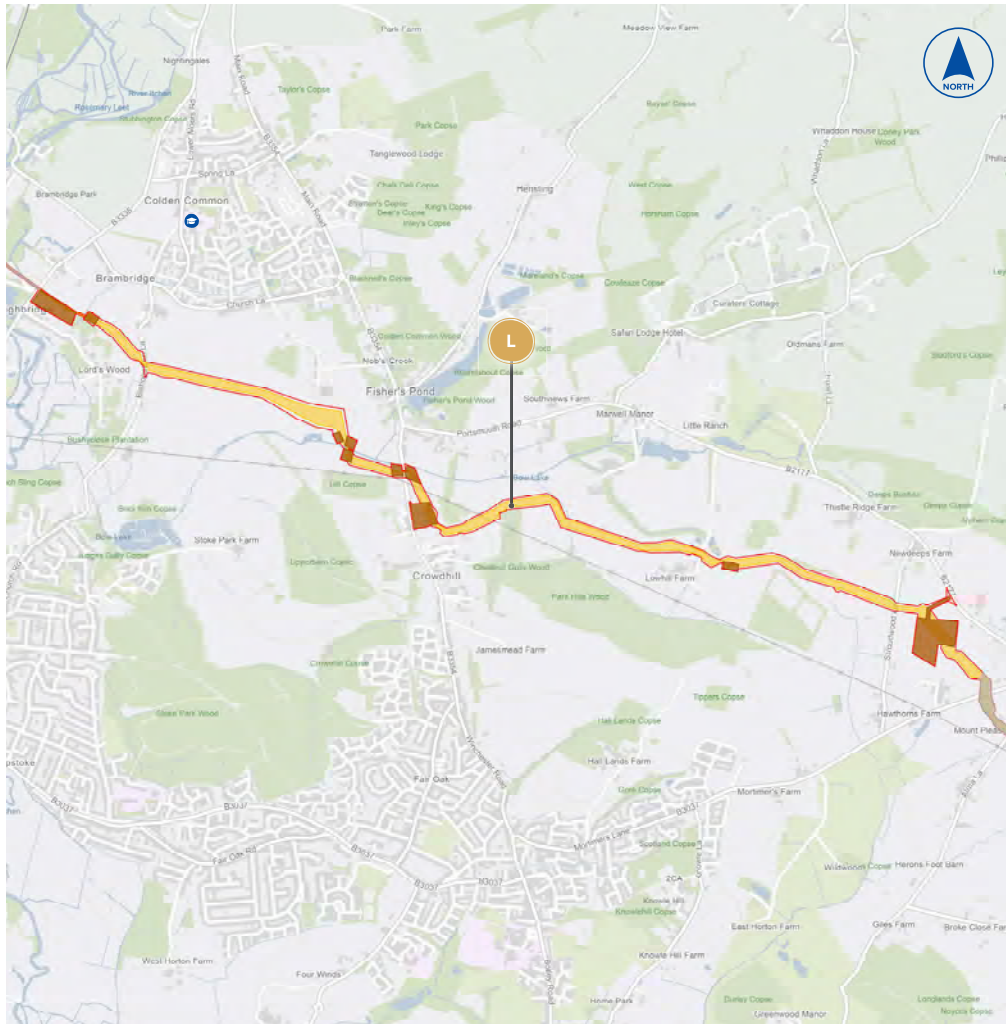
 Construction Compounds

 Draft Limits of Deviation for the above ground plant
(the maximum limits within which the above ground plant would be located)



Section L:

Lower Upham to Brambridge



Section M:

Brambridge to Otterbourne Water Supply Works



Hampshire Water Transfer and Water Recycling Project



Summer 2024 Consultation
29 May to 23 July 2024

Public Consultation here today

Meet
the team
and find
out more

from
Southern
Water 



from
**Southern
Water** 

Hampshire Water Transfer and Water Recycling Project

Hampshire faces a significant shortfall in its water supply. This is caused by restrictions in the amount of water that can be taken from the environment and made worse by population growth and climate change.

When we take water from the county's rivers and the underground aquifers that feed them, it means there's less available for wildlife. To protect these sensitive habitats, we need to find new sources of water to maintain our supplies for customers.

We already have a shortfall of a 166 million litres a day and this figure is only set to rise. The Project would provide a new sustainable source of water, delivering up to 90 million litres of water a day into our Hampshire supply network.

Using advanced treatment technology, we plan to take some of our treated wastewater and treat it to a much higher standard so it can be used for water supplies.

This approach, known as water recycling, will significantly reduce the amount of water we take from the environment - protecting Hampshire's rare and sensitive chalk streams.

New sources of water alone won't solve Hampshire's water resource challenge. We're also reducing leakage and improving water efficiency. And we're working with Portsmouth Water to deliver the Havant Thicket Reservoir to ensure more water is available when it's needed.

Not delivering the Project would place continued additional pressure on an already seriously water stressed area and extend the reliance on abstractions from Hampshire's rivers.



www.HampshireWTWRP.co.uk

Project overview





We plan to use advanced treatment techniques to turn treated wastewater into purified recycled water.


This purified recycled water would be used to supplement the spring water stored in the new Havant Thicket Reservoir, ensuring there's more available for public supplies.


Water from the reservoir would be transferred to our existing water supply works in Otterbourne, where it would undergo further treatment to meet strict drinking water standards before being supplied to customers.


The Project comprises the construction and operation of the following:

- 

A water recycling plant located close to the existing Budds Farm Wastewater Treatment Works in Havant.
- 

Underground pipeline from the high lift pumping station at the water recycling plant to Otterbourne Water Supply Works.
- 

Underground pipelines between Budds Farm Wastewater Treatment Works and the water recycling plant.
- 

Above ground plant, consisting of intermediate pumping stations and break pressure tanks, to support the flow of water along the pipeline to Otterbourne Water Supply Works.
- 

Pipelines between the water recycling plant and Havant Thicket Reservoir, and from Havant Thicket Reservoir to the high lift pumping station at the water recycling plant.



Water recycling



from Southern Water.

The Project is one of six water recycling schemes to be delivered across the South East.

Water recycling is used extensively in other parts of the world such as California and Australia.

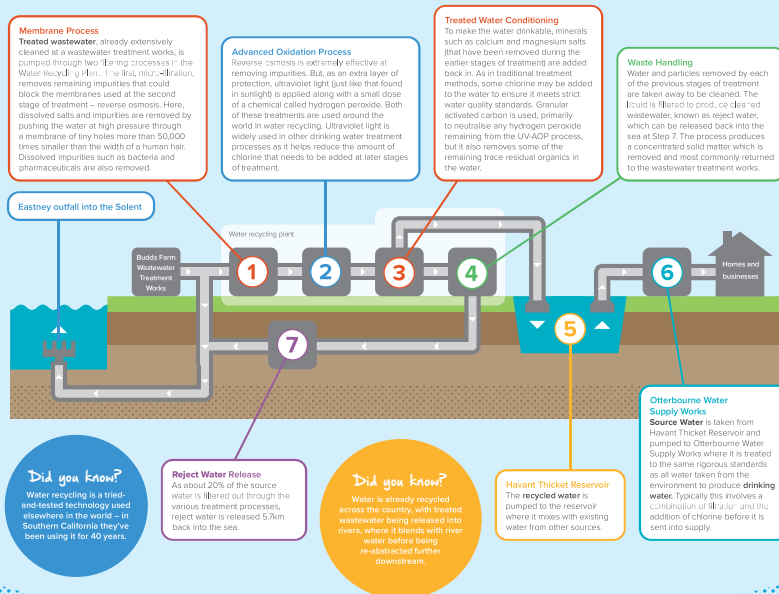
Water recycling plants use advanced treatment techniques to turn treated wastewater into purified recycled water, speeding up the process of natural filtration. Special membranes are used to remove salts and a range of other impurities throughout the water recycling process.

Find out more about the techniques used at each stage of water recycling in the diagram below.



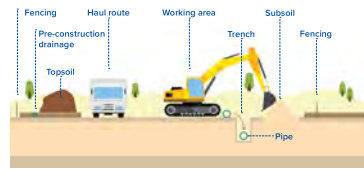
Stages of water recycling

Water recycling uses advanced treatment techniques to turn treated wastewater, that is usually pumped away into rivers and the sea, into purified recycled water.



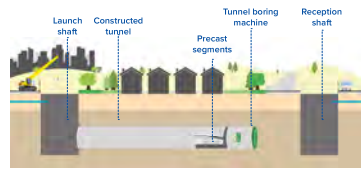


We will use a variety of techniques to lay pipelines under the ground as part of the Project, including:



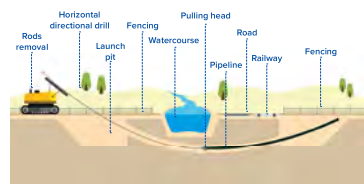
Trenched method – open cut

Most of the pipeline would be installed by digging a trench, laying the pipe, and backfilling the trench. A working area is required to dig the trench and store the pipe and excavated soil. In some situations, the working width could be reduced to limit vegetation removal.



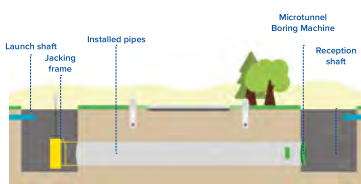
Trenchless method – tunnel boring machine

Tunnelling is proposed in populated residential areas, such as Havant, and in sensitive environmental areas, such as where the pipeline crosses the River Itchen. A tunnel boring machine would be used, with shafts dug at each end of the tunnel.



Trenchless method – horizontal directional drilling

Trenchless methods of pipeline installation, including horizontal directional drilling and microtunnelling, will be used to cross some features such as main rivers, major roads or railways. Horizontal directional drilling involves using a drilling machine to lay a path for the pipe, while microtunnelling uses hydraulic pistons to push the pipe, and the machine, forward in the ground.



Trenchless method – microtunnelling (pipe jacking)



How the Project may affect you

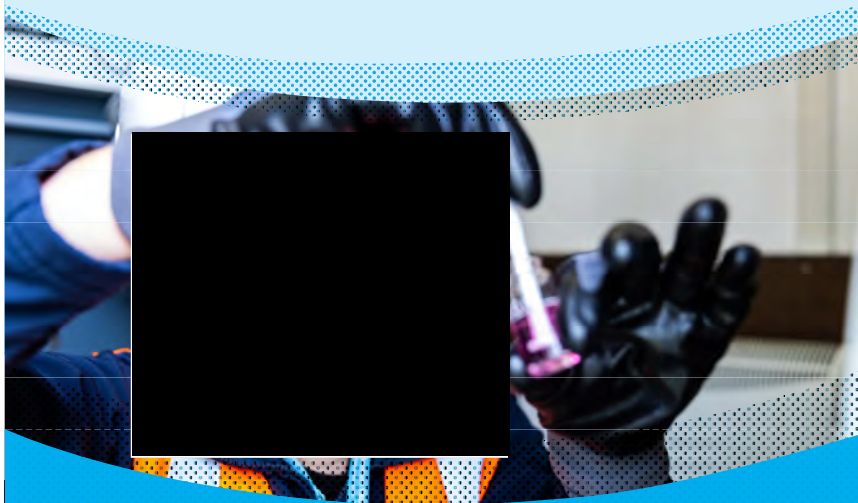
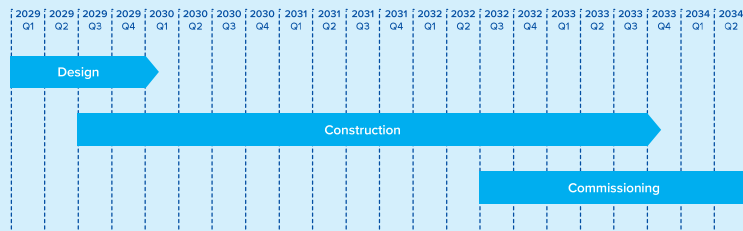


from Southern Water.

During construction and operation, the Project may affect people living and working nearby.

Potential impacts may result in effects on...	How we will manage effects...
Traffic, access and Public Rights of Way	Produce a Construction Traffic Management Plan to minimise impacts of construction traffic on local communities and ensure safe construction traffic access routes. Where we need to divert or close a road or footpath, this would be done for as short a time as possible.
Air quality and odour	Measures to reduce emissions from vehicles and equipment will include dust suppression techniques and regular site inspections.
Noise and vibration	Use of best practice noise reduction techniques including providing acoustic screening and enclosures.
Community	Reduce the duration and area of construction activity wherever practicable and keeping communities informed about timing and disruption during construction.
Landscape and visual	Maintain well-managed and tidy construction working areas and site compounds during construction and careful design consideration of above ground plant to minimise visual effects.
Land use	Minimise the construction working area and engage with all landowners and businesses that could be affected.

The construction programme below gives an indicative timeline starting in 2029.



Protecting the environment



from
Southern
Water.

Protecting the precious chalk streams and their aquifers for future generations of wildlife and people, while maintaining supplies for our customers, is a core driver of the Project.

An Environmental Impact Assessment is being undertaken to assess the impacts, both positive and negative, that the Project may have on the environment and the ways in which negative impacts can be avoided, minimised or mitigated. Preliminary environmental assessments and potential mitigation measures are reported in our Preliminary Environmental Information Report.

Managing environmental effects

We're carefully considering the potential effects of the Project and have included measures at the early design stages to avoid or minimise negative impacts where practicable, such as:



Locating proposed pipeline routes to avoid sensitive areas and responding to local constraints.



Proposing trenchless methods installing pipelines underneath sensitive areas and main roads, rivers and railways.



Avoiding designated sites, wildlife and habitats.



Implementing reduced working widths in constrained areas and to protect existing vegetation, hedgerows and woodland.

Mitigation measures and management plans will ensure adequate controls are in place to manage and mitigate negative environmental effects.

Our Outline Construction Environmental Management Plan sets out how the effects of construction on the environment could be effectively managed.

We will incorporate environmental enhancements, including habitat creation and management, into the design of the Project where practicable, and are committed to achieving a net gain in biodiversity as part of the Project.



Legacy and benefits



from Southern Water

The Project will deliver a number of benefits at a local, regional and national level.



Maintaining public water supplies

The Project will deliver a new sustainable source of water for Hampshire that keeps our customers' taps flowing in the face of increasing environmental protection, climate change and a growing population.



Contributing to Government environmental objectives

The Project will play a major role in meeting national water objectives. We are working with the Environment Agency, landowners and key stakeholders through our Water Industry National Environment Programme to meet the objectives of the Water Framework Directive Regulations.



Protecting our natural resources

The Project will protect Hampshire's iconic chalk streams and reduce the risk of harm to these sensitive habitats.



Enabling economic growth

The Project will help deliver economic and social benefits in the Hampshire area. This will include new jobs and skills training as part of the construction phase and increased spending in our local economies.



Facilitating housing growth

The Project will not only help us maintain supplies for our existing customers but also build capacity for future housing growth.



Environmental Net Gain and Biodiversity Net Gain

The Project will support wider environmental benefits. Potential opportunities could include tree planting and landscaping enhancements, improvements to riverside and wildlife habitats, and enhancements to woodland and grassland.



Have your say



from
Southern
Water.



Complete an online feedback form via our website by visiting www.HampshireWTWRP.co.uk



Send us an email at FeedbackHWTWRP@southernwater.co.uk



Complete a paper feedback form and sending it back to us via FREEPOST HAMPSHIRE WTWRP CONSULTATION. No stamp needed.

Scan the QR code to view our website and give your feedback



Please note that feedback received late, after 11:59pm on 23 July 2024, may not be considered.

Next steps

Consultation feedback will be considered as we develop our proposals.

We will then prepare an application for a Development Consent Order for the Project that will be submitted to the Planning Inspectorate in 2025. This will include a report setting out how we have taken your feedback into account.

A Development Consent Order is a type of consent given by the Secretary of State for nationally significant infrastructure projects. If approved, construction could start in 2029.



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