

Hampshire Water Transfer and Water Recycling Project

Environmental Statement – Glossary and abbreviations

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

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1 Glossary

Table 1-1 Glossary

Term	Definition
Abnormal Indivisible Load	Loads that cannot be divided into two or more loads to be transported by road.
Above Ground Plant (AGP)	This collectively refers to the Intermediate Pumping Stations and Break Pressure Tanks.
Advanced treatment process	<p>This is the recognised term to describe the multi-barrier water recycling treatment process within the Water Recycling Plant to turn highly treated wastewater into purified recycled water. For the Proposed Development, the main stages are:</p> <ul style="list-style-type: none"> • Microfiltration/Ultrafiltration membrane process: Treated wastewater is pumped through a set of Microfiltration/Ultrafiltration membranes that act as a physical barrier that removes suspended solids, bacteria, some viruses, and protozoa from treated wastewater and this process is seen as a high-efficiency pre-treatment for reverse osmosis. • Reverse osmosis: a semi-permeable membrane is used to remove dissolved ions, phosphorus and impurities (such as smaller viruses and pharmaceuticals). • Ultraviolet with advanced oxidation process: Ultraviolet light and a small dose of hydrogen peroxide are applied to break down persistent chemicals and ensure safety through disinfection of the water. • Granular Activated Carbon: Carbon contactors have been designed to adsorb any residual peroxide, and other compounds formed during oxidation. • Treated water conditioning: Minerals (such as calcium and magnesium salts) are added back to stabilise the purified recycled water ready for transfer to Havant Thicket Reservoir.
Affected road network	All roads and junctions that trigger the relevant traffic screening criteria and adjoining roads within 200m.
Agricultural Land Classification (ALC)	A method for assessing the quality of farmland to enable informed choices to be made about its future use within the planning system. Agricultural land is classified into five grades: Grade 1 (excellent), Grade 2 (very good), Grade 3 (good to moderate), Grade 4 (poor), and Grade 5 (very poor). Grade 3 can be further broken down into subgrades 3a (good) and 3b (moderate).
Air Quality Management Area (AQMA)	An AQMA is a designated area where air pollution levels exceed, or are likely to exceed, national air quality objectives set by the United Kingdom government. Local authorities are required to declare an AQMA when

Term	Definition
	monitoring shows that air quality standards are not being met.
Air valves	Air valves are located mainly at high points along the pipeline route. These are required to automatically release any build-up of air in the pipeline and prevent air locking or cavitation of the pumps.
As Low As Reasonably Practicable (ALARP)	Involves weighing a risk against the trouble, time and money needed to control it. Thus, ALARP describes the level to which we expect to see risks controlled.
Amenity	Refers to the qualities of a place that make it enjoyable and attractive to users of an area.
Ancient woodland	Woodland that has existed continuously since 1600 in England, Wales and Northern Ireland and is defined as an irreplaceable habitat.
Anthropogenic	Caused by humans or their activities.
Applicant	Southern Water Services Limited.
Appropriate Assessment	If Stage 1 Screening of the Habitats Regulations Assessment finds that likely significant effects on a protected habitats site (either individually or in combination with other plans or projects) may occur as a result of a proposed project then a Habitats Regulations Stage 2 assessment must be undertaken. The Stage 2: Appropriate Assessment is an assessment of the implications of likely significant effects for the site(s), in view of the site's conservation objectives, and may take into account mitigation measures intended to avoid or reduce the harmful effects of the proposed project. The Appropriate Assessment must show whether an adverse effect on the integrity of the site from the project can be ruled out or not.
Aquitard	Geological formations that have low permeability and restrict the flow of water. They are often made up of clay, shale, or other fine-grained materials, and can act as barriers that prevent or restrict the movement of water between aquifers or between groundwater and surface water.
Arboriculture Impact Assessment (AIA)	An assessment that identifies all trees and hedges that may be directly affected by the Proposed Development, the quality and value of vegetation, the effect that construction works could have on existing vegetation, and recommendation of appropriate mitigation measures.
Archaeological Restraint Area	Broad locations within Portsmouth City Council and Historic Environment Records where planning applications are more likely to have archaeological implications.
Archaeology	The study of past human activity through the recovery and analysis of material culture.
Autumn 2025 Consultation	The statutory, targeted consultation held in Autumn 2025 to consult on eight further design refinements to the Proposed Development made in response to feedback from the Spring

Term	Definition
	2025 Consultation, further investigations, surveys and assessments, and design development.
A-weighting L_A or L_{pA} , L_{WA} , similar – C-weighting L_C or L_{pC} , L_{WC}	<p>Is an electronic filter which is equal to the frequency sensitivity of the human ear. Human hearing sensitivity is at a maximum at around 2 kilohertz and steadily decreases above and below. Below 20 hertz and above about 20 kilohertz humans cannot hear at all.</p> <p>Within its operating limits a precision measurement microphone measures all frequencies the same so the output it produces does not reflect what humans would hear. When considering impacts on humans, it is therefore often necessary to apply an A-weighting to the measured sound frequency spectrum. When A-weighted, the Sound Pressure Level L_p becomes L_{pA} (or L_A) and the Sound Power Level L_W becomes L_{WA}.</p> <p>The response of the human ear varies depending on how loud the sound is. A-weighting matches the response of a Sound Level Meter to human hearing at low levels (~ 40-90 decibels). For higher levels there are other weightings, the most common of which is the C-weighting.</p>
Baseline	The current environmental and social conditions within the Order Limits or within a study area. This provides a benchmark against which changes arising from the Proposed Development are assessed for each relevant assessment.
Bedhampton Springs	Refers to the abstraction point, operated by Portsmouth Water, for the Bedhampton Springs which provide a major source of drinking water for Portsmouth Water's customers.
Best and Most Versatile (BMV) agricultural land	Grades 1, 2 and 3a of the Agricultural Land Classification are classed as BMV agricultural land.
Best Practicable Means	As defined by Section 72 of the Control of Pollution Act 1974 [1].
Biodiversity	The variability among living organisms from all sources, including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.
Biodiversity Net Gain (BNG)	This is an approach to development that delivers measurable improvements that delivers a net gain for biodiversity by creating or enhancing habitats.
Bird strike	Collision between a bird(s) and an aeroplane in flight.
Break Pressure Tank (BPT)	BPT are anticipated to be required at high points along the pipeline route. Water is pumped to BPTs, where it then flows onwards using gravity from the tank. This reduces the amount of energy required to transfer water. BPTs reduce the overall maximum pressure in the pipeline system associated with changes in flow rate as a result of topography.

Term	Definition
Budds Farm pumping station	A pumping station located at Budds Farm Wastewater Treatment Works to support the transfer of treated wastewater to the Water Recycling Plant site.
Budds Farm Wastewater Treatment Works (WTW)	An existing Southern Water site that treats wastewater from the Applicant's customers prior to release into the Solent from the Eastney Long Sea Outfall. The Proposed Development would utilise highly treated wastewater from the Budds Farm WTW to produce recycled water at the Water Recycling Plant site. Reject water would be transferred from the Water Recycling Plant back to Budds Farm WTW where a connection would be made for onwards transfer to the existing Eastney Transfer Tunnel, Eastney Pumping Station and Eastney Long Sea Outfall for release into the Solent. Chemical filter washing at the Water Recycling Plant site would generate process waste that would be discharged via the foul sewer network to Budds Farm WTW for treatment.
Capacity	The maximum traffic flow that a road or junction can accommodate without causing unreasonable delay.
Carbon dioxide (CO ₂)	A naturally occurring gas, also a by-product of burning fossil fuels from fossil carbon deposits, such as oil, gas and coal, of burning biomass, of land use changes and of industrial processes (e.g. cement production). It is the principal anthropogenic greenhouse gas that affects the earth's radiative balance.
Carbon dioxide equivalent (CO ₂ e)	Carbon dioxide equivalent (CO ₂ e) is a term for describing different greenhouse gases in a common unit. The unit takes the different global warming potentials of greenhouse gases into account. CO ₂ e signifies the amount of CO ₂ which would have the equivalent global warming impact.
'Classic' operation scenario	This scenario refers to the maintenance of water levels in Havant Thicket Reservoir, in accordance with Portsmouth Water's existing planning permission, through the use of spring water inputs from Bedhampton and Havant Springs only.
Climate	The general weather conditions prevailing over a long period of time. Climate change will see trends in the climate conditions changing (seasonal averages and extremes).
Control of Major Accident Hazards (COMAH)	The Control of Major Accident Hazards Regulations 2015 [2] ensure that businesses " <i>Take all necessary measures to prevent major accidents involving dangerous substances and to limit the consequences to people and the environment of any major accidents which do occur</i> " [2].
COMAH site	Sites handling/manufacturing/using/storing quantities of hazardous chemicals over specific thresholds which require them to be regulated by The Control of Major Accident Hazards Regulations 2015 [2].
Commissioning	A process undertaken prior to operation to verify that components of a project are installed correctly and are

Term	Definition
	<p>functioning. For the Proposed Development, commissioning comprises:</p> <ul style="list-style-type: none"> • Dry commissioning: verifying that all electrical, mechanical, instrumentation, and control components are installed correctly and functioning without the introduction of water. This includes checking electrical connections, running motors and mechanical equipment without water, confirming sensor operation, and testing automation logic, interlocks, and alarms. • Wet commissioning: introducing water into the treatment process units and verifying that valves, pumps, and equipment operate correctly under flow conditions. This stage includes leak checks, calibration of flow/level/pressure instruments, and gradual ramp up to design flows. The process plant is tested to ensure that all unit operations and the control system function as intended, including alarms, shutdowns, and automatic sequences. • Pipeline commissioning: includes hydrostatic pressure testing of pipe sections using water to fully charge the pipe. This confirms the pipeline’s structural integrity and ability to withstand design pressure, as well as identifies any leaks. Pressure testing is carried out in accordance with the relevant water industry standards.
<p>Commitments Register (Environmental Statement Appendix 5.5 Commitments Register, Volume II (Document reference 6.2, DCO Volume 6))</p>	<p>The Commitments Register, presented in Environmental Statement Appendix 5.5 Commitments Register, Volume II (Document reference 6.2, DCO Volume 6), is provided in accordance with the Planning Inspectorate (2025) Nationally Significant Infrastructure Projects: Commitments Register advice note [3] and it sets out the environmental commitments made in the Environmental Statement and identifies the means by which each are secured.</p>
<p>Construction compounds</p>	<p>Temporary areas required to facilitate the construction of the Proposed Development.</p>
<p>Construction waste</p>	<p>Consists of all waste produced directly or indirectly during the construction process, including excavated material displaced during this process that no longer has a use.</p>
<p>Contractor</p>	<p>The Applicant or a person appointed by the Applicant or by anyone else having the benefit of part or all of the Development Consent Order to carry out any construction element of the Proposed Development or to operate the Proposed Development.</p>
<p>Core Sustainance Zones (CSZ)</p>	<p>A CSZ refers to the area surrounding a communal bat roost within which habitat availability and quality will have a significant influence on the resilience and conservation status of the colony using the roost.</p>
<p>Critical Level</p>	<p>Concentrations of pollutants in the atmosphere above which direct adverse effects on receptors, such as plants and ecosystems, may occur according to present knowledge.</p>

Term	Definition
	Usually measured in units of microgrammes per cubic metre.
Critical Load	A quantitative estimate of an exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge. Usually measured in units of kilograms per hectare per year (nitrogen deposition) or kilogram equivalent per hectare per year (acid deposition).
Cumulative effects	Effects from the interrelationship between the Proposed Development with other committed developments.
Cut and fill	Cut and fill is a common earthworks technique used in construction and civil engineering projects. It involves the removal ('cut') of soil or material from higher areas of a site and the placement ('fill') of that material into lower areas to create a level surface suitable for development.
Decibels (dB)	<p>A logarithmic ratio of two values of a variable. The decibel is not a true measurement unit nor is it exclusive to noise assessments. Decibels are used because they can represent very wide ranges of ratios (from trillionths and billionths to billions and trillions) with a small range of decibel values. Decibels can be used to represent measured values by using a known reference value in the ratio. When using decibels to measure something it is therefore important to specify what variable is being measured and what reference level has been used. This is done by adding a reference value statement in the form dB re x units, where the units indicate the variable being measured and x is the reference value.</p> <p>Decibels are used in noise assessments because the human ear responds to sound pressure in a logarithmic way and the quantities measured in acoustics vary over wide ranges.</p> <p>As the decibel is used in acoustics to represent a range of sound level parameters, there is a standardised notation system. This takes the form of an italic capital letter 'L' (referring to 'level') and subscript characters which give specific details of what is being represented.</p> <p>Because decibels are logarithmic, they must be added, subtracted, multiplied, divided and averaged using different techniques from normal, linear, quantities.</p>
Design principles	Design principles which reflect the design approach adopted for the Proposed Development and as set out in the Design Principles Document (Document reference 5.11, DCO Volume 5) and will control the detailed design post-consent in accordance with Schedule 2 of the draft Development Consent Order (Document reference 3.1, DCO Volume 3).
Designated heritage asset	These include World Heritage Sites, Scheduled Monuments, Listed Buildings, Protected Wreck Sites, Registered Parks and Gardens, Registered Battlefields and

Term	Definition
	Conservation Areas designated under the relevant legislation.
Desk-based Assessment (DBA) (archaeology)	A programme of assessment of the known or potential archaeological resource within a specified area or site on land, inter-tidal zone or underwater.
Development Consent Order (DCO)	A statutory order which provides consent for a project and means that a range of other consents, such as planning permission and listed building consent, will not be required. A DCO can also include powers authorising the compulsory acquisition and temporary possession of land and rights over land which is the subject of an application. A draft DCO (Document reference 3.1, DCO Volume 3) is submitted by the applicant as part of its application [4].
Diatom	Single-celled algae.
Diatom Assessment of River and Lake Ecological Quality Tool (DARLEQ3)	DARLEQ3 is a Microsoft Windows program for the assessment of river and lake ecological status using diatoms.
Directivity	The amount by which a source radiates more sound in one direction than another.
Disaster	May be a natural hazard (e.g. earthquake) or a man-made/external hazard (e.g. act of terrorism) with the potential to cause an event or situation that meets the definition of a major accident.
Displacement (economic)	The loss or reduction of job opportunities for a specific group of workers as a result of changes in the labour market, economic interventions, or competition from other groups.
District License (DL)	DL is an alternative approach to mitigation licensing for developments that could affect great crested newts by NatureSpace. DL aims to increase the number of great crested newts by providing new or better habitats in targeted areas to benefit their wider population.
'Do nothing' (air quality)	The scenario that represents the future baseline (2031) traffic without the addition of committed development, plans and projects and without the Proposed Development to disaggregate cumulative effects on designated ecological features. It includes projected traffic growth from the baseline year (2023) to the future baseline year (2031). Emissions factors for 2023 have been used in the baseline and verification year assessment.
'Do Minimum' (air quality)	The scenario that represents the peak year forecast traffic demand along each road link on the highway network (i.e. future baseline (2031) traffic) without the Proposed Development. It includes projected traffic growth from the baseline year (2023) to future baseline year (2031) and includes committed development, plans and projects. Traffic data for

Term	Definition
	the year of peak traffic demand along each road link is used to represent the highest traffic flows over the period. This is in order to assess the highest potential traffic emissions from the Proposed Development impacting upon air quality.
'Do Minimum' (traffic and transport)	The scenario that represents the future baseline conditions without the Proposed Development. For Environmental Statement Chapter 18 Traffic and transport, Volume I (Document reference 6.1, DCO Volume 6) the following assessment scenarios are considered: <ul style="list-style-type: none"> • Construction – future baseline (approximately five year construction period, assumed to commence in 2028). • Operation – future baseline (opening year, assumed to be 2034).
'Do Something' (air quality)	The scenario represents the peak year forecast traffic demand along each road link on the highway network (i.e. future baseline (2031) traffic) with the addition of construction traffic generated by the Proposed Development). It includes projected traffic growth from the baseline year (2023) to the future baseline year (2031) and includes committed development, plans and projects. Traffic data for the year of peak traffic demand along each road link is used to represent the highest traffic flows over the period. This is in order to assess the highest potential traffic emissions from the Proposed Development impacting upon air quality. To provide a conservative assessment, the peak construction flows have been assumed to occur during the earliest year of construction (2028) across all future year scenarios.
'Do Something' (traffic and transport)	The scenario that represents the future conditions with the Proposed Development. For Environmental Statement Chapter 18 Traffic and transport, Volume I (Document reference 6.1, DCO Volume 6) the following assessment scenarios are considered: <ul style="list-style-type: none"> • construction – future baseline with construction traffic (approximately five year construction period, assumed to commence in 2028). • operation – future baseline with operational traffic (opening year, assumed to be 2034).
Drinking water	Water that has been treated to strict regulatory standards, ready for supply to domestic and non-domestic customers as drinking water.
Drought conditions	Droughts are naturally occurring events and are typically characterised by a prolonged period of abnormally low rainfall, leading to a shortage of water.
Eastney Long Sea Outfall (LSO)	An existing Southern Water infrastructure component used to release treated wastewater from Budds Farm Wastewater Treatment Works. No works to the Eastney LSO are

Term	Definition
	proposed as part of the Proposed Development; however, reject water produced from the Water Recycling Plant will be released from the Eastney LSO using the Eastney Transfer Tunnel and Eastney Pumping Station.
Eastney Pumping Station (PS)	An existing Southern Water infrastructure component. No works are proposed to it as part of the Proposed Development. The Eastney PS receives treated wastewater flows, via gravity, from Budds Farm Wastewater Treatment Works and pumps it out via the Eastney Long Sea Outfall. This pumping station also receives storm flows from the Eastney catchment area. Reject water from the proposed Water Recycling Plant will be released from the Eastney Long Sea Outfall using the Eastney PS and Eastney Transfer Tunnel.
Eastney Transfer Tunnel (TT)	An existing Southern Water infrastructure component. The Eastney TT connects the Budds Farm Wastewater Treatment Works final effluent channel via a shaft located at Budds Farm Wastewater Treatment Works to the Eastney Pumping Station to release treated wastewater. Reject water from the Water Recycling Plant will be released from the Eastney Long Sea Outfall using the Eastney Pumping Station and Eastney TT. A new connection point to the Eastney TT, located at Budds Farm Wastewater Treatment Works, is required. No additional works to the Eastney TT are proposed as part of the Proposed Development.
Ecological Clerk of Works	Oversees the management of the risks on construction sites associated with managing biodiversity and can help to ensure a smooth and cost-efficient construction process.
Ecological Quality Ratio	Ratio of the observed conditions at the survey site to those expected in reference (i.e. High quality or pristine) conditions.
Effect	Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of the impact with the importance, or sensitivity, of the receptor or resource in accordance with defined significance criteria.
Environmental Impact Assessment (EIA)	EIA is a process for identifying the likely significant environmental effects (beneficial and adverse) of a Proposed Development to inform the decision-making process by the Secretary of State when determining an application for a Development Consent Order.
Environmental Impact Assessment (EIA) Regulations	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 [5]; the Regulations which this Environmental Statement has been prepared in accordance with.
Environmental Impact Assessment (EIA) Scoping Opinion	A report issued by the Planning Inspectorate on behalf of the Secretary of State, under the EIA Regulations, providing the opinion on the scope and level of detail of the

Term	Definition
(Environment Statement Appendix 5.2 EIA Scoping Opinion, Volume II (Document reference 6.2, DCO Volume 6))	information to be provided in the Applicant’s Environmental Statement. The EIA Scoping Opinion for the Proposed Development was adopted by the Secretary of State on 31 August 2023.
Environmental Impact Assessment (EIA) Scoping Report (Environment Statement Appendix 5.1 EIA Scoping Report, Volume II (Document reference 6.2, DCO Volume 6))	A request by the Applicant made to the Planning Inspectorate for an EIA Scoping Opinion on behalf of the Secretary of State. The EIA Scoping Report sets out the proposed scope and level of detail to be provided in the Environmental Statement. The EIA Scoping Report for the Proposed Development was submitted to the Secretary of State on 25 July 2023.
Emission	The release of a substance into the environment. For example, air emissions may be discharged from a stack, vent, vehicle exhaust or from diffuse sources.
Enabling and pre-construction works	The preparation of a site in readiness for the first stage of development, including: site clearance and preparation, crossing of major utilities, temporary construction compounds and trenchless compounds.
Enhancement	Measures taken to achieve a benefit, which are unrelated to an adverse impact or which go beyond that required to mitigate/compensate for an impact. For example, restoration of a degraded habitat to leave it in a measurably better state than it was before the Proposed Development or other interventions to leave a positive legacy for the community.
Environmental Mitigation and Enhancement Areas (EMEA)	The ‘Environment Mitigation and Enhancement Areas’ are shown on the Works plans (Document reference 2.3, DCO Volume 2) and in the Design Principles Document (Document reference 5.11, DCO Volume 5). The EMEAs will deliver environmental mitigation to mitigate adverse impacts and provide additional environmental enhancement within the Order Limits. The environmental enhancements that are not associated with environmental mitigation will only be implemented subject to securing agreements with landowners. EMEAs are in addition to the commitment to reinstate vegetation removed to facilitate construction throughout the Order Limits.
Environmental Net Gain (ENG)	ENG is an approach to development that aims to leave the natural environment in a measurably better state than beforehand. Biodiversity net gain is an essential component of ENG. ENG involves going further to achieve increases in the capacity of affected natural capital to deliver ecosystem services and make a scheme’s wider impacts on natural capital positive.
Environmental Permit	A legal requirement under the Environmental Permitting (England and Wales) Regulations 2016 [6] that allows certain activities which could impact the environment or

Term	Definition
	human health to be carried out, subject to conditions that control and reduce those impacts.
Environmental Quality Ratio	The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 [7] stipulates that groundwater must achieve 'good quantitative status' and 'good chemical status' (i.e. not polluted). Groundwater bodies are classified as either 'good' or 'poor'. Environmental Quality Ratio is used to determine the ecological water quality status.
Environmental Statement (ES) (DCO Volume 6)	A document reporting the findings of the Environmental Impact Assessment which describes the likely significant effects arising from the Proposed Development on the environment and measures proposed to mitigate likely significant effects.
Equality Impact Assessment (EqIA) (Document reference 7.13, DCO Volume 7)	An EqIA 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 [8]. 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 EqIA helps to demonstrate that an organisation is meeting its obligations under the Equality Act 2010 and provides evidence that equality issues have been taken into account in decision making and given effect.
European Protected Species (EPS)	EPS are species of plants and animals protected by law throughout the European Union. They are listed in Annexes II and IV of the European Habitats Directive and have effect in England through The Conservation of Habitats and Species Regulations 2017 [9].
Extreme drought	A drought event that occurs every 1-in-500 years, or a 0.2% chance of occurring in any given year [10].
Flood Risk Assessment (FRA) (Environmental Statement Appendix 19.1 Flood Risk Assessment, Volume II (Document reference 6.2, DCO Volume 6))	A technical report that evaluates the potential for flooding from all sources (e.g. fluvial, coastal, surface water, groundwater, reservoir and sewers) on a development site and proposes measures to manage and mitigate those risks. It is a crucial part of the planning process, ensuring that new developments are located and designed in a way that minimises the potential for flood damage and protects people and property both on the site and in the wider area. A FRA (Environmental Statement Appendix 19.1 Flood Risk Assessment, Volume II (Document reference 6.2, DCO Volume 6)) is submitted by the Applicant as part of the Development Consent Order application.
Flood Zone 1	Land having a less than 0.1% annual probability of river or sea flooding.

Term	Definition
Flood Zone 2	Land having between a 1% and 0.1% annual probability of river flooding; or land having between a 0.5% and 0.1% annual probability of sea flooding.
Flood Zone 3a	Land having a 1% or greater annual probability of river flooding; or land having a 0.5% or greater annual probability of sea flooding.
Flood Zone 3b	Comprises land where water from rivers or sea has to flow or be stored in times of flood. Functional floodplain will normally comprise: <ul style="list-style-type: none"> • Normally land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively, or • Land that is designed to flood, even if it would only flood in more extreme events (such as 0.1% annual probability of flooding).
Fork Length	Fish measurement from the tip of their snout to the end of the middle caudal fin rays.
Framework Construction Traffic Management Plan (CTMP) (Document reference 7.2, DCO Volume 7)	<p>Outlines the overarching scope of the individual CTMP document(s) which will be submitted post-consent.</p> <p>The Framework CTMP provides an overarching plan as to how the construction traffic will be managed. It outlines the framework for the detailed CTMPs to be produced and submitted for approval by the relevant authority before construction works can commence.</p> <p>The measures contained in the Framework CTMP are secured by a requirement in Schedule 2 to the Development Consent Order. A detailed CTMP will be produced and submitted for approval in accordance with the corresponding requirement in Schedule 2 to the draft Development Consent Order (Document reference 3.1, DCO Volume 3).</p>
Framework Construction Worker Travel Plan (CWTP) (Appendix A to the Framework Construction Traffic Management Plan (Document reference 7.2, DCO Volume 7))	<p>Provides an overarching plan to encourage sustainable travel choices among construction workers. It sets out measures to encourage construction workers to travel by sustainable modes of transport and how construction traffic will be managed. It also sets out any physical works to the public highway or traffic management measures required to enable access for construction vehicles.</p> <p>It sets out the framework for the detailed CWTP documents which will be developed by the Contractor and approved post-consent.</p> <p>The measures contained in the Framework CWTP are secured by a requirement in Schedule 2 to the Development Consent Order. A detailed CWTP will be produced and submitted for approval in accordance with the corresponding requirement in Schedule 2 to the draft Development Consent Order (Document reference 3.1, DCO Volume 3).</p>

Term	Definition
	The Framework CWTP forms an appendix to the Framework Construction Traffic Management Plan (Document reference 7.2, DCO Volume 7), submitted with the Development Consent Order application.
Framework Rights of Way Management Plan (RoWMP) (Appendix B to the Framework Construction Traffic Management Plan (Document reference 7.2, DCO Volume 7))	Provides a general overview of management measures that will be used to mitigate the impact of the Proposed Development on the Public Rights of Way network. It sets out the framework for the detailed RoWMP(s) which will be developed by the Contractor and approved post-consent. The measures contained in the Framework RoWMP are secured by a requirement in Schedule 2 to the Development Consent Order. Detailed RoWMP(s) will be produced and submitted for approval in accordance with the corresponding requirement in Schedule 2 to the draft Development Consent Order (Document reference 3.1, DCO Volume 3). The Framework RoWMP forms an appendix to the Framework Construction Traffic Management Plan (Document reference 7.2, DCO Volume 7), submitted with the Development Consent Order application.
Free-field	Free-field measurements contain only direct sound propagation, with no sound reaching the ear (or microphone) from reflections.
Future baseline	The anticipated environmental conditions at a defined point in the future, assuming the Proposed Development does occur.
Functionally Linked Land	Land or sea beyond the boundary of a National Site Network site which can ecologically support the populations for which the site was designated or classified and fulfil its functions.
Geoarchaeology	The application of earth science principles and techniques to the understanding of the archaeological record. (As defined by Historic England [11]).
Geophysical survey	The means of non-intrusive survey by systematic collection of measurements of physical properties of the earth to provide spatial information allowing interpretation of site formation processes and/or the potential presence of archaeologically significant remains.
Global Warming Potential (GWP)	GWP of a greenhouse gas is a measure of how much heat is trapped by a certain amount of gas in the atmosphere relative to carbon dioxide.
Guidelines for Landscape and Visual Impact Assessment (Third Edition) (GLVIA3)	Technical guidance, produced by Landscape Institute and Institute of Sustainability and Environmental Professionals, intended for suitably qualified and experienced landscape professionals to carry out landscape and visual impact assessments [12].
Green Infrastructure	The National Planning Policy Framework [13] defines green infrastructure as <i>"a network of multi-functional green and</i>

Term	Definition
	<p><i>blue spaces and other natural features, urban and rural, which is capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities and prosperity."</i></p> <p>For the purpose of the Proposed Development, Green Infrastructure focus areas have been identified on the Indicative Environmental Masterplan (appended to the Design Approach Document (Document Reference 5.12, DCO volume 5)) which shows areas where there are opportunities to enhance the wider network.</p>
Greenhouse gas (GHG)	A GHG is a gaseous constituent of the atmosphere (from both natural and anthropogenic sources) that absorbs and re-emits infrared radiation causing the greenhouse effect, i.e. causing the warming of the Earth's atmosphere.
Gross Value Added (GVA)	A measure of the value of goods and services in an area.
Ground-level tree assessment (GLTA)	The first assessment undertaken on a tree to determine if bats and their roosts are 'reasonably likely' to be impacted by a Proposed Development.
The Habitats Directive (Council Directive 92/43/EEC)	The Habitats Directive (Council Directive 92/43/EEC) [14] adopted in 1992 with the objective to ensure species and habitats are maintained, or restored, to a favourable conservation status within the European Union.
Habitat Suitability Modelling (HSM)	A statistical method for predicting the suitability of habitat for a given species.
Habitats of Principal Importance (HPI)	A list of habitats of principal importance in England, first identified as priority habitats in the United Kingdom Biodiversity Action Plan [15].
Habitats Regulations Assessment (HRA)	A process that determines whether or not a project or a plan could risk having a likely significant effect on a designated National Site Network site and to consider ways to avoid or reduce (mitigate) any potential for an adverse effect on the integrity of the site in accordance with The Conservation of Habitats and Species Regulations 2017 [9].
Hampshire Water Transfer and Water Recycling Project	This is the name of the Proposed Development, that is the Strategic Resource Option being delivered as part of the Water For Life Hampshire programme. A water supply scheme comprising a combination of both water transfer and water recycling technology that would play a major role in making up the shortfall in water supply across the Hampshire supply area, especially in a drought.
Haul roads	Temporary tracks or roads set aside to facilitate transport access to sections of Order Limits to facilitate the construction of the Proposed Development.
Havant Thicket Reservoir	The Havant Thicket Reservoir is a development under construction by Portsmouth Water that has planning permission granted by the relevant local planning

Term	Definition
	<p>authorities. Following the transfer of recycled water from the Water Recycling Plant site, the recycled water would be combined with water contained within the Havant Thicket Reservoir. The Proposed Development would use the Havant Thicket Reservoir for the storage of recycled water, before transfer to Otterbourne Water Supply Works.</p>
<p>Hazardous load</p>	<p>Refers to any dangerous goods, under The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (as amended) [16], being transported that pose a risk to people, property, or the environment due to their chemical or physical properties. Hazardous loads could include, for example:</p> <ul style="list-style-type: none"> • Explosives • Gases • Flammable liquid • Flammable solids • Oxidising substances • Toxic substances • Radioactive material • Corrosive substances <p>Institute of Sustainability and Environmental Professionals guidelines [17] discusses how hazardous loads should be assessed within EIAs.</p>
<p>Hazardous waste</p>	<p>Waste, or the material or substances it contains, which is harmful to humans or the environment, and is classified as hazardous in The Hazardous Waste (England and Wales) Regulations 2005 (SI 2005/894) [18].</p>
<p>Heritage asset</p>	<p>A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. It includes designated heritage assets and assets identified by the local planning authority (including local listing) (as defined in National Planning Policy Framework Annex 2 [13]).</p>
<p>Historic environment</p>	<p>All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora (as defined in National Planning Policy Framework Annex 2 [13]).</p>
<p>Historic Landscape Characterisation (HLC)</p>	<p>HLC is a method of identification and interpretation of the varying historic character within an area that looks beyond individual heritage assets as it brigades understanding of the whole landscape and townscape into repeating HLC Types (as defined by Historic England [19]).</p>
<p>Host authority</p>	<p>The relevant host authorities as defined by section 43 of the Planning Act 2008 [20] comprise: East Hampshire District</p>

Term	Definition
	Council, Eastleigh Borough Council, Fareham Borough Council, Hampshire County Council, Havant Borough Council, Portsmouth City Council, and Winchester City Council.
Impact	A change that is caused by an action/activity associated with the Proposed Development.
Important Hedgerow	Hedgerows classified as 'important' due to meeting criteria under the Hedgerows Regulations 1997 [21] and are protected under the Regulations from whole or partial removal. A hedgerow is 'important' if it, or the hedgerow of which it is a stretch has existed for 30 years or more and satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.
In-Combination Climate Change Impact (ICCI)	When a projected future climate impact (e.g. increase in temperatures) interacts with an effect identified by another topic and exacerbates its impact. For example, if the biodiversity topic identifies an effect on a habitat or species receptor due to a project, such as loss of habitat, and in addition projected future higher temperatures will increase the vulnerability of this habitat to fragmentation, this is an ICCI.
In-combination effects	Effects from the interaction between individual effects of the Proposed Development, i.e. the interrelationship between different environmental topics.
Index	A value based on the mathematical processing of raw data.
Index of Multiple Deprivation	Indices of multiple deprivation are widely used datasets within the UK to classify the relative deprivation (essential a measure of poverty) of small areas. Multiple components of deprivation are weighted with different strengths and compiled into a single score of deprivation.
Indicative Environmental Masterplan (Appended to the Design Approach Document (Document reference 5.12, DCO Volume 5))	A plan setting out the Green Infrastructure focus areas, placing the multi-functional environmental mitigation and enhancement measures within the framework of the landscape design comprises a series of indicative drawings, and a series of indicative plans for each of the Above Ground Plant sites, showing potential layouts and how the sites might appear once built.
Indicator (noise)	A value used to indicate the likelihood of a particular response of a noise effect, e.g. $L_{10,18hr}$ is an index based on statistical processing of sound pressure data that is used as an indicator for road traffic noise response.
Inert waste	According to Directive 2008/98/EC [22] which is Retained European Union Legislation under the European Union (Withdrawal) Act 2018, inert waste is waste that: <ul style="list-style-type: none"> • Will not undergo any significant physical, chemical or biological transformations. • Will not dissolve. • Will not burn.

Term	Definition
	<ul style="list-style-type: none"> • Will not physically or chemically react. • Will not biodegrade. • Will not adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm to human health. • Has insignificant total leachability and pollutant content. • Produces a leachate with an ecotoxicity that is insignificant (if it produces leachate).
Invasive Non-Native Species (INNS)	The Great British Non-Native Species Secretariat defines INNS as “any non-native animal or plant that has the ability to spread causing damage to the environment, the economy, our health and the way we live” [23].
Invasive Non-Native Species (INNS) Biosecurity Plan (Document reference 7.10, DCO Volume 7)	Sets out an outline approach to the management of INNS for the Proposed Development and provides the measures required to reduce or remove the risk of introducing or spreading INNS during construction and operation phases.
Invasive Non-Native Species (INNS) Treatment at Otterbourne Water Supply Works	Infrastructure to be located at Otterbourne Water Supply Works to ensure the addition of source water transferred from Havant Thicket Reservoir would not introduce pathways for the spread of INNS.
Isolation valves	Required to stop the flow of water through the pipeline to facilitate repair or maintenance. They may be co-located with washouts and air valves and designed with an integral bypass for the balancing of upstream and downstream pressure to facilitate operation of the isolation valve.
Key Connective Location	Represent linear features such as hedgerows, lines of trees and watercourses which contribute to the predicted movement of bat species between areas of suitable habitat in the landscape.
Landfill void capacity	The quantity of available remaining capacity within a landfill, expressed either in mass or volume.
Landscape and Visual Impact Assessment (LVIA)	The process by which the likely landscape and visual effects of the Proposed Development are assessed.
Landscape Character Areas (LCA)	Single unique areas which are the discrete geographical areas of a particular landscape type.
Landscape Character Assessment	The process of identifying and describing variation in the character of the existing landscape, and using this information to assist in managing change in the landscape. It seeks to identify and explain the unique combination of elements and features that make landscapes distinctive. The process results in the production of a Landscape Character Assessment.
Landscape character types (LCT)	Distinct types of landscape that are relatively homogeneous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but

Term	Definition
	wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation and historical land use and settlement pattern, and perceptual and aesthetic attributes.
Large (abnormal) loads	Defined by National Highways [24] as a vehicle having any of the following: <ul style="list-style-type: none"> • A weight of more than 44,000 kilograms. • An axle load of more than 10,000 kilograms for a single non driving axle and 11,500 kilograms for a single driving axle. • A width of more than 2.9 metres. • A rigid length of more than 18.65 metres.
Leakage (socio-economic)	The loss or outflow of potential economic benefits, jobs, or skilled workers from a specific area, sector, or group - often to the detriment of the local or intended beneficiaries.
Level (Sound)	Values measured in decibels.
$L_{eq,T}$ $L_{Aeq,T}$ τ = measurement time e.g. $L_{Aeq,5min}$	<p>The equivalent continuous sound pressure level over period T ($L_{eq,T}$).</p> <p>The A-weighted equivalent continuous sound pressure level over period T ($L_{Aeq,T}$).</p> <p>This is effectively the average sound pressure level over a given period. As the decibel is a logarithmic quantity the L_{eq} is not a simple arithmetic mean value.</p> <p>The L_{eq} is calculated from the raw sound pressure data. It is not appropriate to include a reference to the FAST and SLOW time constants in the notation.</p>
Lotic-invertebrate Index for Flow Evaluation	Index of overall flow preferences of different macroinvertebrate communities.
Light Detection and Ranging (LiDAR)	A survey detection system based on radar principles using light. It makes 3-dimensional representations of areas of the Earth's surface.
Limits of Deviation for Above Ground Plant	The 'Limits of Deviation for Above Ground Plant' represents the extent of the area within which the Above Ground Plant would be located. These are shown in the Design Principles Document (Document reference 5.11, DCO Volume 5). The 'Limits of Deviation for Above Ground Plant' do not represent the footprint of the Above Ground Plant.
Limits of Deviation for Pipeline	The 'Limits of Deviation for Pipeline' represent the area within the Order Limits that the pipeline could be permanently located once constructed. These are shown on the Works plans (Document reference 2.3, DCO Volume 2). The 'Limits of Deviation for Pipeline' does not represent the construction working area for the pipeline.
Link	A section of highway, footway or footpath, cycleway or cycle path, or bridleway.
L_{max}	The maximum instantaneous sound pressure level (L_{max}),

Term	Definition
L_{Amax} L_{AFmax} L_{min}, L_{Fmin}	<p>The A-weighted maximum instantaneous sound pressure level (L_{Amax}).</p> <p>The A-weighted maximum instantaneous sound pressure level with a FAST time constant (L_{AFmax}).</p> <p>This is the highest instantaneous sound pressure level reached during a measurement period.</p> <p>The opposite of the L_{max} is the minimum instantaneous sound pressure level or L_{min} etc.</p>
$L_{N,T}$ $L_{AN,T} L_{AFN,T}$ $N = \% \text{age value, } 0 \text{ } 100$ $T = \text{measurement time e.g. } L_{A90},$ $L_{A10}, L_{AF90}, 5 \text{ min}$	<p>The percentage exceedance sound pressure level ($L_{N,T}$),</p> <p>The A-weighted percentage exceedance sound pressure level ($L_{AN,T}$), the A-weighted percentage exceedance sound pressure level with a FAST time constant ($L_{AFN,T}$).</p> <p>This is the sound pressure level exceeded for N% of the time T. e.g. If an A-weighted level of x decibel is exceeded for a total of six minutes within one hour, the level will have been above x decibel for 10% of the measurement period. This is written as $L_{A10,1hr} = x$ decibel.</p> <p>L_{A0} (the level exceeded for 0% of the time) is equivalent to the L_{Amax} and L_{A100} (the level exceeded for 100% of the time) is equivalent to the L_{Amin}.</p> <p>It is good practice to include the letter which identifies the time constant used as this can make a significant difference to the value.</p>
Lowest Observed Adverse Effect Level (LOAEL)	As defined in Noise Policy Statement for England [25]– “ <i>The level above which adverse effects on health and quality of life can be detected</i> ”.
Local Aggregate Assessment (LAA)	The LAA details the current and predicted situation in each mineral planning authority with respect to all aspects of aggregate supply, in particular with regards to the authority's land-won aggregate provision in line with any adopted mineral plans.
Local Landscape Character Area (LLCA)	Subdivisions of published Landscape Character Areas defined by the Applicant's competent experts to provide a greater level of detail to inform the landscape and visual impact assessment and the design of the Proposed Development.
Local Nature Reserves (LNR)	A protected area of land designated by a local planning authority because of its special natural interest and/or educational value.
L_p L_{pA} (or L_A) L_{AF}, L_{AS}	<p>The instantaneous sound pressure level (L_p).</p> <p>The A-weighted instantaneous sound pressure level (L_{pA} or L_A).</p> <p>This is the root mean square size of the pressure fluctuations in the air. This level can fluctuate wildly even for seemingly steady sounds. To make sound level meters easier to read the values on the display are smoothed or damped out. This is effectively done by taking a rolling average of the previous 0.125 seconds (FAST time constant) or the previous 1 second (SLOW time constant).</p>

Term	Definition
	The letters F or S are added to the subscripts in the notation to indicate when the FAST or SLOW time constant has been used. These are often omitted but it is good practice to include them.
Made Ground	Areas where natural deposits have been replaced or altered by the introduction of artificial deposits and/or imported natural materials.
Main River	Watercourses designated under the Water Resources Act 1991 [26] as 'main' are usually larger rivers and streams that are shown on the Environment Agency's Statutory Main River map. The Environment Agency has permissive powers, but not a duty, to carry out maintenance, improvement or construction work on designated Main Rivers to manage flood risk.
Major accident	Events that threaten immediate or delayed serious environmental effects to human health, welfare and/or the environment and require the use of resources beyond those of the Applicant or its appointed representatives to manage.
Margalef's species richness	This is a measure of the number of species (richness) corrected to reflect the number of individuals (abundance) sampled.
Material resources	Construction materials and products (from primary (natural assets), recycled or secondary and renewable sources) and built assets.
Maximum operation	The period when the Proposed Development is operating at maximum flows. During maximum operation, the Water Recycling Plant would produce approximately 60 Megalitres per day (MI/d) of recycled water, and approximately 90MI/d of source water would be transferred from Havant Thicket Reservoir to Otterbourne Water Supply Works.
Micro-siting	This is the process part of the design development to define specific locations of certain components such as above-ground plant and temporary construction compounds.
Mineral Consultation Areas (MCA)	Areas identified to ensure consultation takes place between the relevant district or borough planning authority, the minerals industry and the Minerals and Waste Planning Authorities before determining certain non-mineral planning applications made within the MCA.
Mineral Safeguarding Area (MSA)	Areas defined by Mineral and Waste Planning Authorities with known mineral resources that are of identified economic or conservation value.
Minimum operation	A minimum operation is required to ensure that the Proposed Development is in regular working use for when higher outputs are required. During minimum operation, the Water Recycling Plant would have an output of approximately 10 Megalitres per day (MI/d).
Mitigation	Measures intended to avoid, prevent, reduce and, where possible, offset likely significant adverse environmental

Term	Definition
	effects. Measures follow the mitigation hierarchy as described in section 5.3 of Environmental Statement Chapter 5 EIA approach and methodology, Volume I (Document reference 6.1, DCO Volume 6).
Mitigation hierarchy	A systematic approach to guide decision-making and prioritise mitigation design. The hierarchy comprises stages in order of preference and effectiveness: avoid, prevent, reduce and remediate as described in section 5.3 of Environmental Statement Chapter 5 EIA approach and methodology, Volume I (Document reference 6.1, DCO Volume 6).
Monitoring	Measures to ensure the systematic and ongoing collection, analysis and evaluation of data related to the implementation and performance of a development. Monitoring can be undertaken to monitor conditions in the future to verify any environmental effects identified by the Environmental Impact Assessment, the effectiveness of mitigation or enhancement measures or ensure remedial action are taken should adverse effects above a set threshold occur. All monitoring measures adopted by the Proposed Development are reflected in Environmental Statement Appendix 5.5 Commitments Register, Volume II (Document reference 6.2, DCO Volume 6).
Multiplier effects	The ripple effect where an initial increase in employment or investment leads to additional rounds of spending and job creation throughout the economy.
National Nature Reserve (NNR)	Exemplary, nationally important nature reserves, where nature conservation is the primary land use and significant other benefits may be provided for people and the environment.
National Site Network (NSN)	Network of protected sites within the United Kingdom territory comprising Special Areas of Conservation and Special Protection Areas as designated under The Conservation of Habitats and Species Regulations 2017 (as amended) [9].
National Vegetation Classification (NVC)	Hierarchical system designed to classify natural habitats according to the vegetation they contain.
Nationally Rare Nationally Scarce	Describes the level of conservation importance for invertebrate species in the UK, derived from the British Red Data Books [27] [28].
Nationally Significant Infrastructure Projects (NSIPs)	NSIPs are large scale major development projects in England or Wales which require permission under the Planning Act 2008 [20]. Projects are only defined as nationally significant if they meet the relevant threshold set out in the Planning Act 2008 [4].
Near and far-fields	These are the regions of the radiation field of a sound source. In the near field, the sound pressure and acoustic particle velocity are not in phase and there is no simple relationship between sound pressure level and distance

Term	Definition
	<p>from the source. The near field is limited to a distance from the source of around a wavelength of sound or three times the largest dimension of the sound source (whichever is the larger).</p> <p>The far field is the region of the sound field in which sound pressure level decreases predictably with distance. For a point source, the sound pressure level decreases by 6 decibels for each doubling of distance. It extends from the near field to infinity.</p>
Night-time Bat Walkover	A field survey carried out at night-time to detect bat activity, including species presence and key commuting or foraging areas, across a site using bat detectors and suitability experienced surveyors.
Nitrates Directive	The Nitrates Directive (91/676/EEC) aims to provide protection of waters against pollution caused by nitrates of agricultural sources [29].
Nitrogen deposition	The process by which reactive nitrogen compounds emitted into the atmosphere are deposited onto land and/or water bodies.
Noise	No strict definition and is often used interchangeably with Sound. However, it is usually taken to mean noticeable unwanted sound.
Noise level	Values measured in decibels.
Non-Road Mobile Machinery (NRMM)	<p>NRMM is any mobile machine, transportable equipment, or vehicle with or without bodywork or wheels which:</p> <ul style="list-style-type: none"> • Is not intended for carrying passengers or goods on the road. • Includes machinery installed on the chassis of vehicles. • Has a combustion engine – either an internal spark ignition engine, or a compression ignition engine.
Non-designated heritage assets	Non-designated heritage assets are buildings, monuments, sites, places, areas or landscapes identified by plan-making bodies as having a degree of heritage significance meriting consideration in planning decisions but which do not meet the criteria for designated heritage assets.
Non-hazardous waste	Any waste not defined as 'hazardous' under the Hazardous Waste (England and Wales) Regulations 2005 [18]. Also see the definition for ('Hazardous Waste').
Non-motorised users	A non-motorised user(s) is someone walking or cycling, or a horse rider.
Number of Taxa	The recorded number of scoring aquatic plants as listed in Water Framework Directive UK Technical Advisory Group WFD-UKTAG guidance [30]
Ofwat	Ofwat (The Water Services Regulation Authority) is a non-ministerial government department that is the regulator of the water and wastewater services industry in England and Wales.

Term	Definition
Order Limits	The 'Order Limits' represent the extent of the area within which the Proposed Development, authorised by the Development Consent Order, may be carried out, including the permanent and temporary land needed for construction, operation and maintenance activities. The Order Limits are shown on the Works plans (Document reference 2.3, DCO Volume 2) and Land plans (Document reference 2.2, DCO Volume 2).
Ordinary Watercourse	An Ordinary Watercourse is any channel that water flows through that is not designated as an Environment Agency Main River. Lead local flood authorities and internal drainage boards have responsibility for Ordinary Watercourses.
Otterbourne Water Supply Works (WSW)	An existing Southern Water site which abstracts water from river Itchen and ground sources, and will continue to do in certain circumstances after the Proposed Development. The Proposed Development would transfer source water from Havant Thicket Reservoir to Otterbourne WSW. The source water would be treated to strict regulatory standards at Otterbourne WSW prior to being supplied to customers.
Operational Environmental Management Plan (OEMP) (Document reference 7.7, DCO Volume 7)	Provides a framework of commitments for the operational stage of the Proposed Development. These include general operational practices which have the potential to have an environmental impact, in addition to Proposed Development specific environmental mitigations. The measures contained in the OEMP are secured by a requirement in Schedule 2 to the Development Consent Order.
Outline Carbon Management Plan (CMP) (Document reference 7.8, DCO Volume 7)	Sets out commitments and incentives to reduce carbon emissions as far as practicable in line with the requirements of the National Policy Statement for water resources infrastructure. The measures contained in the Outline CMP are secured by a requirement in Schedule 2 to the Development Consent Order. A detailed CMP will be produced and submitted for approval in accordance with the corresponding requirement in Schedule 2 to the draft Development Consent Order (Document reference 3.1, DCO Volume 3).
Outline Construction Environmental Management Plan (CEMP) (Document reference 7.1, DCO Volume 7)	Contains identified topic specific mitigation measures to be adopted during construction, and specifies plans and method statements to be produced by the Contractor to avoid and reduce environmental effects. Mitigation measures are generally tertiary mitigation, although some secondary mitigation measures are also included. The measures contained in the Outline CEMP are secured by a requirement in Schedule 2 to the Development Consent Order. Detailed CEMP(s) will be produced and submitted for approval in accordance with the corresponding requirement in Schedule 2 to the draft

Term	Definition
	Development Consent Order (Document reference 3.1, DCO Volume 3).
Outline Foundation Works Risk Assessment (FWRA) (Document reference 7.4, DCO Volume 7)	A preliminary assessment prepared during the design phase that identifies potential risks associated with foundation works, such as piling or ground improvement, particularly in areas of contamination or sensitive ground conditions. It sets out initial mitigation measures and informs the development of detailed risk assessments post-consent.
Outline Landscape and Ecology Management Plan (LEMP) (Document reference 7.5, DCO Volume 7)	Provides a framework for delivering the Green Infrastructure strategy for the Proposed Development. This addresses the reinstatement of existing vegetation following construction, the implementation, maintenance and long-term management of proposed environmental mitigation, as well as strategic environmental enhancements within the Order Limits. The measures contained in the Outline LEMP are secured by a requirement in Schedule 2 to the Development Consent Order. The detailed LEMPs will be required to be produced and submitted for approval in accordance with the corresponding requirement in Schedule 2 to the draft Development Consent Order (Document reference 3.1, DCO Volume 3).
Outline Skills and Employment Plan (SEP) (Document reference 7.9, DCO Volume 7)	Provides the framework for skills and employment planning for the Proposed Development. It sets out measures that will help support the delivery of, and access to, new jobs and training opportunities for local population, including for local young people. The measures contained in the Outline SEP are secured by a requirement in Schedule 2 to the Development Consent Order. A detailed SEP will be produced and submitted for approval in accordance with the corresponding requirement in Schedule 2 to the draft Development Consent Order (Document reference 3.1, DCO Volume 3).
Outline Soil Resource Management Plan (SRMP) (Appendix B of the Outline Construction Environmental Management Plan (Document reference 7.1, DCO Volume 7))	Provides the overall approach to managing soil resources affected by the construction, operation and maintenance of the Proposed Development. The measures contained in the Outline SRMP are secured by a requirement in Schedule 2 to the Development Consent Order. A detailed SRMP will be produced and submitted for approval in accordance with the corresponding requirement relating to the Construction Environmental Management Plan in Schedule 2 to the draft Development Consent Order (Document reference 3.1, DCO Volume 3).
Outline Written Scheme of Investigation (WSI) (Document reference 7.6, DCO Volume 7)	Sets out the proposed outline scope and commitments to archaeological survey, mitigation and subsequent reporting and publication to be undertaken post-consent. It therefore sets out an overarching mitigation strategy for effects arising on archaeological heritage assets as a result of the

Term	Definition
	<p>Proposed Development to be undertaken within the Order Limits.</p> <p>The measures contained in the Outline WSI are secured by a requirement in Schedule 2 to the Development Consent Order. A detailed WSI will be produced and submitted for approval in accordance with the corresponding requirement in Schedule 2 to the draft Development Consent Order (Document reference 3.1, DCO Volume 3).</p>
Peak Particle Velocity (PPV)	<p>Is a measurement of maximum ground particle movement speed. It is used to assess the impact of vibration generated by certain operations in terms of structural damage and human response.</p>
Permanent access	<p>Identifies locations where permanent access will be taken from the highway network for the purpose of operation of the Proposed Development.</p>
Pielou's Evenness Index	<p>This represents the uniformity in distribution of individuals spread between species in a sample. High values indicate more evenness or more uniform distribution of individuals. The output range is from zero to one.</p>
Pipeline between the Water Recycling Plant site and Otterbourne Water Supply Works	<p>An underground pipeline approximately 35 kilometres long would transfer approximately 90 Megalitres per day of source water at maximum operation, from the Water Recycling Plant site to Otterbourne Water Supply Works. Above Ground Plant would support the transfer of water from the Water Recycling Plant site to Otterbourne Water Supply Works.</p> <p>Due to the length of the pipeline, it has been divided into sections:</p> <ul style="list-style-type: none"> • Section D: The Water Recycling Plant site to Portsdown Hill • Section E: Portsdown Hill to Boarhunt • Section F: Boarhunt to Crockerhill • Section G: Crockerhill to Wickham • Section H: Wickham to Shedfield • Section J: Shedfield to the River Hamble • Section K: The River Hamble to Lower Upham • Section L: Lower Upham to Brambridge • Section M: Brambridge to Otterbourne Water Supply Works
Pipelines between Budds Farm Wastewater Treatment Works and the Water Recycling Plant site	<p>Two pipelines between Budds Farm Wastewater Treatment Works and the Water Recycling Plant site: one to transfer treated wastewater from Budds Farm Wastewater Treatment Works to the Water Recycling Plant site and the other to transfer reject water from the Water Recycling Plant site to Budds Farm Wastewater Treatment Works. The Pipelines would connect to the existing treated wastewater</p>

Term	Definition
	<p>release infrastructure and the reject water would be released via the existing Eastney Long Sea Outfall using the existing Eastney Transfer Tunnel and Eastney Pumping Station. The development required to connect into the existing treated wastewater infrastructure would form part of this component of the Proposed Development.</p> <p>The Pipelines between Budds Farm Wastewater Treatment works and the Water Recycling Plant site would be installed on the same route under the Hermitage Stream and Harts Farm Way and would be approximately 700m in length.</p> <p>The Pipelines between Budds Farm Wastewater Treatment works and the Water Recycling Plant site would transfer a maximum flow of approximately 82 Megalitres per day (MI/d) of treated wastewater to the Water Recycling Plant site. The pipeline from the Water Recycling Plant site to Budds Farm Wastewater Treatment Works would be sized for the same transfer capacity of approximately 82MI/d as it may be necessary to return the maximum volume of water being treated back to Budds Farm Wastewater Treatment Works.</p>
Pipelines between the Water Recycling Plant site and Bedhampton Springs	<p>The Pipelines would transfer recycled water from the Water Recycling Plant site to Bedhampton Springs, and source water from Bedhampton Springs back to the Water Recycling Plant site (before transfer to Otterbourne Water Supply Works).</p> <p>The Pipelines, connecting to pipelines being delivered by Portsmouth Water between Bedhampton Springs and Havant Thicket Reservoir, would enable the transfer at maximum operation of approximately 60 Megalitres per day (MI/d) of recycled water from the Water Recycling Plant site to Havant Thicket Reservoir and approximately 90MI/d of source water from Havant Thicket Reservoir to the Water Recycling Plant site, for onward transfer to Otterbourne Water Supply Works.</p>
'Post-WRP' operation scenario	This scenario is used to describe an operational scenario following commissioning of the Proposed Development and the release of recycled water into Havant Thicket Reservoir.
Predicated Environmental Concentration	The pollutant loading to a receptor as a result of the Proposed Development plus baseline deposition.
Preferred pipeline corridor	The preferred pipeline corridor was selected as part of the scheme development process which considered a number of pipeline corridor and Above Ground Plant options. The preferred pipeline corridor was consulted on at the Summer 2022 Consultation. Additional information is provided within the Scheme Development Report (Document reference 5.10, DCO Volume 5).
Preliminary Environmental Information (PEI) Report	The PEI Report sets out the information that " <i>is reasonably required for the consultation bodies to develop an informed view of the likely significant environmental effects of the development</i> " (Regulation 12(2)(b) of the Environmental

Term	Definition
	Impact Assessment Regulations 2017 [5] as set out in Planning Inspectorate (2025) Nationally Significant Infrastructure Projects - Advice Note Seven: Environmental Impact Assessment: process, preliminary environmental information and environmental statements, Section 8.3 [31]). The PEI Report was consulted on at the Summer 2024 Consultation.
Primary (inherent) mitigation	Modifications to the location or design of the Proposed Development which are a result of design evolution. Modifications which are an inherent part of the Proposed Development design for the purpose of avoiding, preventing or minimising likely significant environmental effects. For example, re-routing the Proposed Development to avoid passing through an ancient woodland.
Principal Aquifer	Rocks or soils that provide significant quantities of water and can support water supply and/or baseflow to rivers, lakes and wetlands on a strategic scale. They typically have a high intergranular and/or fracture permeability, meaning they usually provide a high level of water storage.
Process contribution	The additional pollutant loading to a receptor as a result of the Proposed Development alone.
Process waste	Process waste is chemical waste that is removed from the water recycling process.
Project Integra	<p>Project Integra [32] is a partnership working to provide an integrated approach to the collection, treatment and disposal of municipal waste in Hampshire. The partnership includes:</p> <ul style="list-style-type: none"> • The 11 district/borough authorities in Hampshire (waste collection). • Hampshire County Council (waste disposal). • Portsmouth and Southampton unitary authorities (waste collection and disposal). • Veolia Hampshire (integrated waste management contractor).
Project of national significance	Large scale development that has been directed by the Secretary of State to be treated as development for which a Development Consent Order is required under Section 35 of the Planning Act 2008 [20] due to being a project of national significance.
Proposed Development	This refers to the Hampshire Water Transfer and Water Recycling Project, as described in Environmental Statement Chapter 3 Description of the Proposed Development, Volume I (Document reference 6.1, DCO Volume 6).
Protective strip	An area of land on either side of the pipeline constructed using open-cut construction methods, that would restrict the landowner or occupier from undertaking certain activities that could restrict access to or affect the integrity of the pipeline.

Term	Definition
Public Consultation 2021	The consultation undertaken in early 2021 which consulted on the 75MI/d desalination plant at Fawley as part of the Water Resources Management Plan 2019 Preferred Strategy and introduced alternative water transfer and water recycling options to consultees.
Ramsar site	A Ramsar site is the land listed as a Wetland of International Importance under The Convention on Wetlands of International Importance Especially as Waterfowl Habitat (the Ramsar Convention) established in 1971 and came into force in 1975.
River Basin Management Plan	River basin management plans set the legally binding locally specific environmental objectives that underpin water regulation (such as permitting) and planning activities. They provide a stable planning base for economic development.
River Macrophyte Nutrient Index	Ecological indicator that uses macrophyte presence to assess the nutrient status of a watercourse.
Receptor	An individual, group or asset that receives an impact of effect.
Recycled water	Purified water that has been produced by taking treated wastewater and removing remaining impurities using advanced treatment techniques.
Red Data Books	Series of books that provide the conservation status assessments of threatened species in Britain.
Reduced working width locations	Areas at specific and agreed locations where there is a reduced working width in response to sensitive constraints (e.g. vegetation and roads) during construction of the Proposed Development that will be used and are assessed in the ES. Reduced working width locations are secured in Appendix A of the Outline Construction Environmental Management Plan (Document reference 7.1, DCO Volume 7).
Regulators' Alliance for Progressing Infrastructure Development (RAPID)	The RAPID is made up of the three water regulators: Water Services Regulation Authority, the Environment Agency and the Drinking Water Inspectorate. It was established to work with the industry to promote the development of strategic water resources infrastructure.
Reject water	During the water recycling process, reject water is produced. Reject water is water containing impurities removed from the treated wastewater and released using the existing Eastney Transfer Tunnel and Eastney Long Sea Outfall.
Release from the Eastney Long Sea Outfall (LSO)	The existing Eastney LSO releases treated wastewater from Budds Farm Wastewater Treatment Works via the existing Eastney Transfer Tunnel and Eastney Pumping Station. The Proposed Development would utilise the Eastney LSO for the release of reject water produced by the Water Recycling Plant site. During maximum operation approximately 22 Megalitres per day (MI/d) of reject water would be released from the Eastney LSO. During minimum flow operation

Term	Definition
	approximately 4MI/d of reject water would be released from the Eastney LSO.
Remediation	An action taken to break or modify the source-pathway-receptor (contaminant) linkage so that the risks are removed or reduced to an acceptable level for the land use under consideration [33].
Residual effects	Remaining effects of the Proposed Development following the implementation of any secondary (foreseeable) mitigation.
Road Verges of Ecological Importance (RVEI)	Road verges that support either a notable species, and/or a species rich semi-natural habitat.
Rochdale Envelope	A range of maximum design parameters defined where appropriate to enable the identification and assessment of likely significant effects arising from a Proposed Development's based on a worst case scenario. The Rochdale Envelope incorporates flexibility and addresses uncertainty in the Development Consent Order application and is assessed during the Environmental Impact Assessment process as set out in Planning Inspectorate (2025) Nationally Significant Infrastructure Projects - Advice Note Nine: Rochdale Envelope [34].
Root protection area	Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil is treated as a priority.
Schedule 1 species	Birds protected under the Wildlife and Countryside Act 1981 [35] in the Great Britain that have extra legal protection due to their rarity, vulnerability, or sensitivity to disturbance.
Section 41 species	Species listed under Section 41 of the Natural Environment and Rural Communities Act 2006 [36] are of principal importance for both the conservation and enhancement of biodiversity in England.
Scoping Area	The area of land outlined in the Environmental Impact Assessment Scoping Report represented the extent of land that was anticipated to be required for temporary or permanent purposes in order to construct and operate the Proposed Development.
Secondary A aquifer	These are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.
Secondary B aquifer	These are mainly lower permeability layers that may store and yield limited amounts of groundwater through characteristics like thin cracks (called fissures) and openings or eroded layers.
Secondary (foreseeable) mitigation	Measures or actions to prevent or minimise any remaining significant adverse environmental effects of the Proposed

Term	Definition
	<p>Development identified through the Environmental Impact Assessment process.</p> <p>For example, reptile translocation will be undertaken to mitigate for the potential killing or injury of common reptile species by the permanent loss of suitable habitat at the WRP site.</p>
Secondary undifferentiated aquifer	<p>This has been assigned in cases where it has not been possible to attribute either a Secondary A or B aquifer to the soil type due to the variable characteristics. In most cases, this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.</p>
Security and Emergency Measures Direction (SEMD)	<p>This is the principle general direction issued by the Secretary of State [37], which requires undertakers and licensees to maintain a water support and/or sewerage system due to the interests of national security, or to mitigate the effects of a civil emergency which may occur.</p>
Sensitivity	<p>The extent to which a receptor is likely to accept or respond to a change.</p>
Setting (of a heritage asset)	<p>The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral (as defined in National Planning Policy Framework Annex 2 [13]).</p>
Severe drought	<p>A drought event that occurs every 1-in-200 years, or a 0.5% chance of occurring in any given year [38].</p>
Shannon-Wiener Diversity Index ($H'(\log_e)$)	<p>Widely used measure of diversity accounting for both the number of taxa present and the evenness of distribution of the taxa.</p>
Significance	<p>Significance is assessed by comparing the magnitude of an impact with a receptor's value, sensitivity, permanence or reversibility, in an assessment-specific matrix. The criteria in this matrix can be pre-set, allowing for objective impact assessment rather than subjective impact evaluation.</p>
Simpson's Index ($1-\lambda$)	<p>This form is an evenness index (also known as the GiniSimpsons Index) derived from the probability of picking two individuals from a community at random that are from the same species. Simpson's index ranges from zero to one with higher values representing a more diverse community without dominant taxa.</p>
Site of Importance for Nature Conservation (SINC)	<p>An important wildlife site which contributes to the ecological network in Hampshire.</p> <p>To safeguard these sites, they are designated as non-statutory designated SINC. SINC are also known nationally as Local Wildlife Sites. They represent a legacy of good management and rely upon continued stewardship by landowners.</p>

Term	Definition
Site of Special Scientific Interest (SSSI)	A nationally site designated by Natural England as an area of special interest by reason of any of its flora, fauna, geological or physiographical features. SSSI are legally protected under the Wildlife and Countryside Act 1981 (as amended) [35].
Significant Observed Adverse Effect Level (SOAEL)	As defined in Noise Policy Statement for England [25]– “ <i>The level above which significant adverse effects on health and quality of life occur</i> ”.
Solent Wader and Brent Goose Strategy (SWBGS) Sites	Network of sites around the Solent identified as being of value for waders and Brent Geese, designated by the Solent Recreation Mitigation Partnership (made up of the Solent Local Authorities). The SWBGS Sites identifies the network of sites around the Solent and determines which sites are the most valuable and why. The SWBGS aims to protect the network of non-designated terrestrial wader and brent goose sites that support the Solent Special Protection Areas from land take and recreational pressure associated with new development.
Sound	The physical phenomenon of the transmission of energy through gaseous, liquid or solid media via rapid periodic fluctuations in pressure.
Sound Pressure Level L_p obsolete – SPL	The basic measure of how much sound there is at a given location. It is a measure of the size of the pressure fluctuations in the air that we perceive as sound. Sound Pressure Level is expressed in decibels with a reference level of 20×10^{-6} Pascals (L_p in decibel re 20 μ Pa).
Sound Power Level L_w obsolete – SWL	The total amount of sound produced by a source. It cannot be measured directly but can be calculated from Sound Pressure Level measurements in known conditions. It can be used to predict the Sound Pressure Level at any point. Sound Power Level is expressed in decibels with a reference level of 1×10^{-12} Watts (L_w in decibel re 1 pW).
Source odour potential	The potential for odour generation from site activities.
Source Protection Zone 1 (SPZ1)	Inner protection zone - defined as the 50-day travel time from any point below the water table to the abstraction source. This zone has a minimum radius of 50m radius from the source, whichever is larger.
Source Protection Zone 1c (SPZ1c)	Inner protection zone - defined as the 50-day travel time from any point below the water table to the abstraction source. This zone has a minimum radius of 50m and is where there is protective geology cover, such as clay.
Source Protection Zone 2 (SPZ2)	Outer protection zone - defined by a 400-day travel time. The zone will default to a minimum radius of 250m or 500m, depending on the size of the abstraction, if the 400-day travel time zone is smaller.
Source Protection Zone 2c (SPZ2c)	Outer protection zone – defined by a 400-day travel time. The zone will default to a minimum radius of 250m or 500m, depending on the size of the abstraction, if the 400-day

Term	Definition
	travel time zone is smaller, and is where there is a protective geology cover of low permeability sat above a unit of high permeability.
Source Protection Zone 3 (SPZ3)	Source catchment protection zone - defined as the area around an abstraction source within which all groundwater recharge is presumed to be discharged at the abstraction source.
Source water	Water that is used as a source for drinking water. For the Proposed Development, this water is treated to strict regulatory standards at the Otterbourne Water Supply Works before being supplied to customers.
Source-pathway-receptor linkage	For a risk to arise there must be hazard that consists of a 'source' (e.g. high rainfall); a 'receptor' (e.g. people, environment); and a pathway between the source and the receptor (e.g. flooding).
South East England	Comprising counties of Berkshire, Buckinghamshire, East Sussex, Hampshire, Isle of Wight, Kent, London, Oxfordshire, Surrey and West Sussex.
Special Area of Conservation (SAC)	Area(s) of protected habitat(s) and species as defined in the European Union Habitats Directive (92/43/EEC) [14].
Special Protection Area (SPA)	A designated area for birds under the European Union Directive on the Conservation of Wild Birds (2009/147/EC) [39].
Spring 2025 Consultation	The statutory consultation held in Spring 2025 to consult on water quality modelling updates, and design refinements made to the Proposed Development in response to feedback from the Summer 2024 Consultation and ongoing scheme development.
Spring 2026 Consultation	The statutory, targeted consultation held in Spring 2026 to consult on one further design refinement at Otterbourne Water Supply Works as a result of additional works and treatment required.
Study area	A defined spatial scope (e.g. the area which may be impacted) for each topic assessment.
Sustainable Drainage System (SuDS)	A Sustainable Drainage System that generally mimic the natural drainage patterns of an undeveloped site allowing infiltration into the ground (where feasible) and controlling outflow rates from a proposed development. This reduces the impact and risk of flooding and can provide additional benefits such as pollution control, increased biodiversity, and provision of water-based amenity space.
Summer 2022 Consultation	The non-statutory consultation undertaken in summer 2022 which consulted on the Proposed Development, including the process undertaken to select the Proposed Development and the process undertaken to identify the preferred pipeline corridor, Water Recycling Plant site, and emerging Above Ground Plant zones.

Term	Definition
Summer 2024 Consultation	The statutory consultation held in 2024 which consulted on the Proposed Development, including the draft Order Limits, the proposed pipeline routes, proposed sites for the Above Ground Plant and Water Recycling Plant, temporary construction compounds and any temporary or permanent access routes.
Task lighting	Artificial lighting specifically provided to illuminate a particular work area or activity on a construction site.
Temporary construction access	Identifies locations where temporary access will be taken from the highway network for the purpose of construction of the Proposed Development.
Tertiary (inexorable) mitigation	Standard industry good practice measures or actions to reduce impacts, regardless of the design process and Environmental Impact Assessment. These include actions that will be undertaken to meet existing legislative requirements, and/or actions that are considered to be standard good practice used to manage commonly occurring environmental effects. For example, considerate contractors' practices that manage activities which have potential nuisance and environmental effects, such as the spillage of fuels, oils or other chemicals.
Traffic Management Strategy (TMS) (Document reference 7.3, DCO Volume 7)	Outlines the proposed traffic management associated with the construction phase of the Proposed Development.
Transboundary effects	Environmental effects that extend beyond national borders, where the Proposed Development is likely to have significant effects on the environment in a European Economic Area State.
Transport Assessment	A comprehensive and systematic process that considers and sets out transport issues relating to a proposed development. It identifies measures required to support alternatives to the car such as walking, cycling and public transport, and to promote accessibility and safety, together with measures that will be needed to deal with the anticipated transport impacts of the development.
Treated wastewater	Wastewater that has been treated to strict regulatory standards and is typically released to rivers or the sea.
Trenchless crossings	Crossings where trenchless installation techniques will be used during construction of the Proposed Development.
Trial trenching	Archaeological investigation using discrete trenches to investigate an area or specific features of interest to provide information to inform consent or allow a scheme of mitigation to be designed.
Trophic Diatom Index from light microscopy	Diatom based water quality index calculated using light microscopy.

Term	Definition
UK Biodiversity Action Plan (BAP)	An internationally recognised programme addressing threatened species and habitats which is designed to protect and restore biological systems.
Unproductive strata	These are predominantly rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.
Urban Waste Water Treatment Directive	The Urban Waste Water Treatment Directive 2024 [40] ensures that urban wastewater is collected and properly treated before being discharged into the environment.
Veteran tree	A veteran tree that is one of exceptional biodiversity, cultural or heritage value that has developed some of the features found on an ancient tree, not necessarily as a consequence of time, but of its life or environment.
Vibration Dose Value (VDV)	<p>VDV is a parameter used for assessing the effects of vibration on people inside buildings and is known to correlate well with subjective response. It quantifies a cumulative effect over an assessment time period (typically daytime or night-time) and is especially useful for evaluating intermittent or non-continuous vibrations. VDV is defined as the fourth root of the integral of the fourth power of acceleration over time, as per the following formula:</p> $VDV_{day/night} = \left(\int_0^T a^4(t) dt \right)^{1/4}$ <p>Where:</p> <ul style="list-style-type: none"> • $VDV_{day/night}$ is the vibration dose value in $m/s^{1.75}$ • $a(t)$ is the frequency-weighted acceleration in m/s^2 • T is the total period of the day or night during which vibration can occur, in seconds. <p>Because of the fourth power, VDV is much more sensitive to changes in vibration level than duration, and is particularly sensitive to short-duration, high-intensity vibrations.</p>
Washout valves	Located at topographical low points along the Proposed Development pipelines to facilitate commissioning and emptying a section of pipe for repair and maintenance.
Waste	Any substance or object which the holder discards or intends to or is required to discard – unusable or unwanted.
Waste hierarchy	The ‘waste hierarchy’ ranks waste management options according to what is best for the environment. It gives top priority to preventing waste in the first place. When waste is created, it gives priority to preparing it for reuse, then recycling, then recovery, and last of all disposal (e.g. landfill).
Wastewater	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.

Term	Definition
Watching Brief	A formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, in an inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.
Water storage lagoons	Temporary construction compounds that would store potable water used for commissioning of the Pipeline between the Water Recycling Plant site and Otterbourne Water Supply Works and the cleaning of this water using a silt buster.
Water for Life Hampshire	This is the programme being progressed by the Applicant to address the sustainability objectives of to meet demand following a reduction in abstractions on Hampshire's two main rivers - The Test and Itchen - and ensuring a resilient water supply for the Applicant's customers, especially during times of drought.
Water Recycling Plant (WRP)	The WRP would receive a total maximum volume of approximately 82 Megalitres per day (Ml/d) of treated wastewater from Budds Farm Wastewater Treatment Works. This would provide a maximum output of approximately 60Ml/d of recycled water. Approximately 22Ml/d of reject water is produced from the water recycling process and would be combined with the existing Budds Farm Wastewater Treatment Works treated wastewater flows (that are generated by the existing operation of Budds Farm Wastewater Treatment Works), and released via the existing Eastney Transfer Tunnel, Eastney Pumping Station, and Eastney Long Sea Outfall operated by the Applicant.
Water Recycling Plant (WRP) site	The site containing the WRP, three pumping stations, a main process building, kiosks, administrative buildings and parking facilities. Located at a site north-west of Budds Farm Wastewater Treatment Works.
Water Resources Management Plan 2019 (WRMP19)	The Applicant's existing WRMP19 which sets out how the Applicant will manage and develop water resources to ensure a resilient supply of water for at least the next 25 years. The WRMP identifies the need for a strategic water resource options within the Western (Hampshire) supply area, from which the Proposed Development has been determined as the preferred solution to meet this need.
Whalley-Hawkes-Paisley-Trigg	Macroinvertebrate based assessment used to assign pollution-tolerance scores to difference invertebrate taxa.
Final Draft Water Resources Management Plan 2024 (WRMP24)	The Applicant's Final Draft WRMP24 which sets out how the Applicant will manage and develop water resources to ensure a resilient supply of water for at least the next 25 years. The Final Draft WRMP24 supports the need for a strategic water resource option within the Western (Hampshire) supply area, from which the Proposed Development has been determined as the preferred solution

Term	Definition
	to meet this need. The Final Draft WRMP24 has been submitted to Defra for approval.
The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (WER)	The WER [7] transpose the European Water Framework Directive 2000/60/EC into law in England and Wales.
The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015 (WFD Direction)	The WFD Direction [41] establish a series of thresholds that are used in the classification of water body status under the Water Environment (Water Framework Directive) England and Wales) Regulation 2017.
Works plans (Document reference 2.3, DCO Volume 2)	The Works plans show the spatial extent of the works that are detailed in Schedule 1 of the draft Development Consent Order (Document reference 3.1, DCO Volume 3) to be consented and operated by the Development Consent Order when made.
Zone of Influence (Zol)	The spatial area over which an effect from a project is likely to be experienced.
Zone of Theoretical Visibility (ZTVs)	A map, digitally produced, showing areas of land within which a development is theoretically visible, as defined in Guidelines for Landscape and Visual Impact Assessment (Third Edition) [12].

2 Abbreviations

Table 2-1 Abbreviations

Term	Definition
AA	Annual Average
AADT	Annual Average Daily Traffic
AAWT	Annual Average Weekday Traffic
ACD	Admiralty Chart Datum
ACM	Asbestos containing material
ADCP	Acoustic Doppler Current Profiler
ADHD	Attention Deficit Hyperactivity Disorder
ADMS	Atmospheric Dispersion Modelling System
ATC	Automatic Traffic Count
AGP	Above Ground Plant
AIA	Arboricultural Impact Assessment
AIL	Abnormal Indivisible Load
ALARP	As Low As Reasonably Practicable
ALC	Agricultural Land Classification
ALG	Algae
AONB	Area of Outstanding Natural Beauty
APIS	Air Pollution Information System
APR	Annual Provision Rate
AQMA	Air Quality Management Area
AQS	Air Quality Standards
ASNW	Ancient Semi-Natural Woodland
AW	Ancient Woodland
AWB	Artificial Water Body
AWI	Ancient Woodland Indicator
BAP	Biodiversity Action Plan
BaP	benzo(a)pyrene
BCT	Bat Conservation Trust
BDIZ	Bat Direct Impact Zone
BEIS	Department for Business, Energy and Industrial Strategy
BESPR	Best Engineering Solution Pipeline Route
bgl	Below-ground level
BGS	British Geological Survey
BIIZ	Bat Indirect Impact Zone
BMV	Best and Most Versatile
BNG	Biodiversity Net Gain

Term	Definition
BNL	Basic Noise Level
BoCC	Birds of Conservation Concern
BOD	Biological Oxygen Demand
BPT	Break Pressure Tank
BS	British Standards
BSI	British Standards Institution
BST	British Summer Time
BTEX	Benzene, Toluene, Ethylbenzene, and Xylene
BTO	British Trust of Ornithology
CaCO ₃	Calcium Carbonate
CAMS	Catchment Abstraction Management Strategy
CAP	Competitively Appointed Provider
CCC	Committee on Climate Change / Climate Change Committee
CCI	Community Conservation Index
CCR	Climate Change Resilience
CDDZ	Committed Development Distribution Zone
CDM	Construction Design and Management
CE	Critically Endangered
CEA	cumulative effects assessment
CEC	Contaminants of Emerging Concern
CEMP	Construction Environmental Management Plan
CERC	Cambridge Environmental Research Centre
CH ₄	Methane
CIEEM	Chartered Institute of Ecology and Environmental Management
CIRIA	Construction Industry Research and Information Association
CITB	Construction Industry Training Board
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CL:AIRE	Contaminated Land: Applications in Real Environments
CLe	Critical Level
CLo	Critical Load
CLP	Classification Labelling and Packaging
CLR11	Contaminated Land Report 11
CMP	Carbon Management Plan
CMS	Convention on the Conservation of Migratory Species of Wild Animals
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
COD	Chemical Oxygen Demand

Term	Definition
COMAH	The Control of Major Accident Hazards Regulations 2015 [2]
CoNAWR	The Control of Noise at Work Regulations 2005 [42]
COP	Conference of the Parties
CoPA	Control of Pollution Act 1974 [1]
COPD	Chronic Obstructive Pulmonary Disease
CREAM	Calculator for Road Emissions of Ammonia
CRoW	Countryside and Rights of Way Act 2000 [43]
CRTN	Calculation of Road Traffic Noise
CSZ	Core Sustenance Zone
CTD	Conductivity, Temperature, Depth
CTMP	Construction Traffic Management Plan
CVD	Cardiovascular Disease
CW	Carapace Width
CWTP	Construction Worker Travel Plan
DARLEQ3	Diatom Assessment of River and Lake Ecological Quality Tool
dB	Decibel
DBA	Desk Based Assessment
DCO	Development Consent Order
Defra	Department for Environment, Food and Rural Affairs
DEM	Digital Elevation Model
DESNZ	Department for Energy Security and Net Zero
DFMP	Drilling Fluid Management Plan
DIC	Dissolved Inorganic Carbon
DIN	Dissolved Inorganic Nitrogen
DL	District License
DMRB	Design Manual for Roads and Bridges
DO	Dissolved oxygen
DOC	Dissolved Organic Carbon
DPC	Direct procurement for customers
DrWPA	Drinking Water Protection Areas
DWF	Dry Weather Flow
DWI	Drinking Water Inspectorate
EA	Environment Agency
EBC	Eastleigh Borough Council
EC	European Commission
EclA	Ecological Impact Assessment
ECoW	Ecological Clerk of Works
eDNA	Environmental deoxyribonucleic acid

Term	Definition
EEA	European Economic Area
EHDC	East Hampshire District Council
EIA	Environmental Impact Assessment
EIMP	Emergency Invasive Non-Native Species Management Plan
ELC	European Landscape Convention
EMEA	Environmental Mitigation and Enhancement Area
EN	Endangered
ENG	Environmental Net Gain
EOD	Explosive Ordnance Disposal
EPP	Evidence Plan Process
EPS	European Protected Species
EPUK	Environmental Protection UK
EqIA	Equality Impact Assessment
EQR	Ecological Quality Ratio
EQS	Environmental Quality Standard
EQSD	Environmental Quality Standards Directive
ES	Environmental Statement
EU	European Union
EUNIS	European Nature Information System
FBC	Fareham Borough Council
FC	Forestry Commission
FFT	Flow to Full Treatment
FL	Fork Length
FLL	Functionally Linked Land
FM	Flow Model
FOCI	Feature of Conservation Importance
FRA	Flood Risk Assessment
FS	Find Spot
FSA	Food Standards Agency
FTE	Full Time Equivalent
FWRA	Foundation Works Risk Assessment
GAC	Generic Assessment Criteria
GB	Great Britain
GCN	Great crested newt
GCZ	Geoarchaeological Character Zone
GDG	Guideline Development Group
GEP	Good Ecological Potential
GES	Good Ecological Status

Term	Definition
GHG	Greenhouse Gas
GI	Ground Investigation
GIR	Ground Investigation Reports
GIS	Geographic Information System
GLTA	Ground-level tree assessment
GLVIA3	Guidelines for Landscape and Visual Impact Assessment (Third Edition)
GPA3	Historic Environment Good Practice Advice in Planning: 3
GPLC	Guiding Principles for Land Contamination
GPS	Global Positioning System
GRP	Glass reinforced plastic
GVA	Gross Value Added
GWDTE	Groundwater Dependent Terrestrial Ecosystem
GWP	Global Warming Potential
ha	Hectare
HBC	Havant Borough Council
HBCDD	Hexabromocyclododecane
HBIC	Hampshire Biological Information Centre
HCA	Homes and Communities Agency
HCC	Hampshire County Council
HDD	Horizontal Directional Drilling
HDV	Heavy Duty Vehicle
HE	Historic England
HER	Historic Environment Record
HIWWT	Hampshire and Isle of Wight Wildlife Trust
HGV	Heavy Goods Vehicle
HLC	Historic Landscape Characterisation
HLPS	High Lift Pumping Station
HMWB	Heavily Modified Water Body
HMWP	Hampshire Minerals and Waste Plan
HPI	Habitat of Principal Importance
HRA	Habitats Regulations Assessment
HRRM	High rejection rate membrane
HSA	Habitat Suitability Assessment
HSC	Hazardous Substances Consent
HSI	Habitat Suitability Index
HSM	Habitat Suitability Modelling
HSWA	Health and Safety at Work etc. Act 1974 [44]
HVAC	Heating, Ventilation and Air Conditioning

Term	Definition
HVO	Hydrogenated Vegetable Oil
HX	Hedgerow crossing
IAWPP	Infilled Ancient Wood Pasture and Parkland
IASO	Invasive Alien Species (Enforcement and Permitting) Order
IASR	Invasive Alien Species Regulation
IAQM	Institute of Air Quality Management
IBA	Important Bird and Biodiversity Area
ICCI	In-Combination Climate Change Impact
ICE	Inventory of Carbon and Energy
ICES	International Council for the Exploration of the Sea
IFCA	Inshore Fisheries and Conservation Authority
ILP	Institute of Lighting Professionals
IMD	Index of Multiple Deprivation
INNS	Invasive Non-Native Species
IPC	Infrastructure Planning Commission
IPPC	Intergovernmental Panel on Climate Change
IPS	Intermediate Pumping Station
IRZ	Impact Risk Zone
ISEP	Institute of Sustainability and Environmental Professionals (formerly known as Institute of Environmental Management and Assessment)
ISO	International Organization for Standardization
ITL	International Territorial Level
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
JSNA	Joint Strategic Needs Assessment
KCL	Key Connective Location
keq/ha/yr	Kilogram equivalent per hectare per year
kg/ha/yr	kilogram per hectare per year
km	Kilometre
kt	Kilotonnes
L _{A10,18h}	A-weighted sound level exceeded for 10% of the time over 18 hours
L _{A90}	Background Sound Level
LAA	Local Aggregate Assessment
L _{Aeq}	Equivalent Continuous Sound Level
L _{Aeq,Tr}	Equivalent Continuous Sound Level over reference time
L _{Amax}	Maximum Sound Level
LAQM	Local Air Quality Management

Term	Definition
LAQM.TG(22)	Local Air Quality Management Technical Guidance 2022
L _{Ar,Tr}	Rating level including adjustments for noise characteristics
LB	Listed Building
LBAP	Local Biodiversity Action Plan
LCA	Landscape Character Area
LCT	Landscape Character Type
LCWIP	Local Cycling and Walking Infrastructure Plan
L _{den}	Day-evening-night noise level
LDF	Local Development Framework
LDV	Light Duty Vehicle
LEMP	Landscape and Ecology Management Plan
LEP	Local Enterprise Partnership
LGV	Light Goods Vehicle
LHA	Local Highway Authority
LiDAR	Light Detection and Ranging
LIFE	Lotic-invertebrate Index for Flow Evaluation
LLCA	Local Landscape Character Area
L _{night}	Night-time noise level
LNR	Local Nature Reserve
LNRS	Local Nature Recovery Strategies
LOAEL	Lowest Observed Adverse Effect Level
LoD	Limits of Deviation
LSO	Long Sea Outfall
LSOA	Lower Super Output Area
LTP	Living Tree Project
L VIA	Landscape and Visual Impact Assessment
LWS	Local Wildlife Site
m	Metre
MAC	Maximum Allowable Concentration
MAGIC	Multi-Agency Government Information for the Countryside
MCA	Mineral Consultation Area
MCZ	Marine Conservation Zone
MEWP	Mobile Elevating Work Platform
MHWS	Mean High Water Springs
MI/d	Megalitres per day (million litres per day)
MMO	Marine Management Organisation
MMP	Materials Management Plan
MMS	Minerals Management Strategy

Term	Definition
MoD	Ministry of Defence
MON	Monument
MoRPh	Modular River (Physical)
MPM	Monument Portsmouth Catalogue (prefix for heritage asset IDs)
MPS	Marine Policy Statement
MRU	Motion Reference Unit
MSA	Mineral Safeguarding Area
MSFD	Marine Strategy Framework Directive [45]
Mt	Million tonnes
MTBM	Microtunnel boring machines
mV	Millivolts
MWC	Monument Winchester Catalogue (prefix for heritage asset IDs)
NAP	National Adaptation Programme
NBN	National Biodiversity Network
NBW	Nighttime Bat Walkover
NCA	National Character Area
NCN	National Cycle Network
NDHA	Non-Designated Heritage Asset
NE	Natural England
NERC	Natural Environment and Rural Communities Act 2006 [36]
NFNPA	New Forest National Park Authority
NFPD	National Fish Population Database
NGR	National Grid Reference
NH	National Highways
NH ₃	Ammonia
NH ₄	Ammonium
NHLE	National Heritage List for England
NHS	National Health Service
HIA	Hydrogeological Impact Assessment
NMBAQC	North-East Atlantic Marine Biological Analytical Quality Control
MMQ	Mean Max Queues
NNG	Night Noise Guideline
NNR	National Nature Reserve
NO ₂	Nitrogen dioxide
NO ₃	Nitrate
NO _x	Nitrogen oxides
NPPF	National Planning Policy Framework [13]
NPS	National Policy Statement

Term	Definition
NPSE	Noise Policy Statement for England [25]
NPSWRI	National Policy Statement for water resources infrastructure, updated in July 2025 [46]
NR	Nationally Rare
NRMM	Non-Road Mobile Machinery
NS	Nationally Scarce
NSIP	Nationally Significant Infrastructure Project
NSN	National Site Network
NSR	Noise Sensitive Receptors
NT	Near Threatened
NTAXA	Number of Taxa
NTS	Non-Technical Summary
NTU	Nephelometric Turbidity Units
NVC	National Vegetation Classification
NVMP	Noise and Vibration Management Plan
NVSR	Noise and Vibration Sensitive Receptor
NVZ	Nitrate Vulnerable Zone
OD	Ordnance Datum
ODN	Ordnance Datum Newlyn
OEMP	Operational Environmental Management Plan
Ofwat	Water Services Regulation Authority
OHID	Office for Health Improvement and Disparities
OIC	Officer in Charge
OMH	Open Mosaic Habitat
ONS	Office for National Statistics
OS	Ordnance Survey
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
OTU	Operational Taxonomic Unit
PA 2008	Planning Act 2008 [20]
PAH	Polycyclic aromatic hydrocarbons
PAWS	Plantation on Ancient Woodland Sites
PBDE	Polybrominated diphenyl ethers
PC	Process contribution
PCB	Polychlorinated Biphenyls
PCC	Portsmouth City Council
PCR	Polymerase Chain Reaction
PCU	Passenger Car Unit
PEC	Predicted Environmental Concentration

Term	Definition
PEI	Preliminary Environmental Information
PFAS	Poly- and per-fluoroalkyl substances
PFOS	Perfluorooctane sulfonate
PIC	Personal Injury Collision
PM ₁₀	Particulate Matter <10 microns
PM _{2.5}	Particulate Matter <2.5 microns
PO ₄	Phosphate
POI	Points of Interest
PPE	Personal Protective Equipment
PPG	Planning Practice Guidance
PPV	Peak Particle Velocity
PR19	Price Review 2019
PRA	Preliminary Roost Assessment
PRC	Practical Reserve Capacity
PRF	Potential Roosting Feature
PRF-I	Potential Roosting Feature for Individual roosting bats
PRF-M	Potential Roosting Feature for Multiple roosting bats
PRIMER	Statistical software for ecological data
PRoW	Public Rights of Way
PS	Pumping Station
PSA	Particle Size Analysis
PSC	Potential sources of contamination
PSI	Proportion of Sediment-sensitive Invertebrates
PSU	Practical Salinity Unit
pVCO	Molecularly Oriented Polyvinyl Chloride Pipe
PWS	Public Water Supply
Q _{mean}	Mean flow
RAMS	Risk Assessments and Method Statements
RAPID	Regulators' Alliance for Progressing Infrastructure Development
RBBP	Rare Breeding Bird Panel
RMBP	River Basin Management Plan
RCA	River Condition Assessment
RCP	Representative Concentration Pathways
RDB	Red Data Books
RDF	Required dilution factors
RMNI	River Macrophyte Nutrient Index
RMSE	Root Mean Square Error
RO	Reverse Osmosis

Term	Definition
RoWMP	Rights of Way Management Plan
RSPB	Royal Society for the Protection of Birds
RTK	Real-Time Kinematic
RVAA	Residential Visual Amenity Assessment
RVEI	Road Verges of Ecological Importance
SAC	Special Area of Conservation
SBES	Single Beam Echo Sounder
SBM	Statutory Biodiversity Metric
SBRC	Sussex Biodiversity Records Centre
SCC	Southampton City Council
SDMP	Solent Disturbance and Mitigation Project
SDNP	South Downs National Park
SDNPA	South Downs National Park Authority
SEMD	Security and Emergency Measures Direction [37]
SEP	Skills and Employment Plan
SIMPER	Similarity Percentages
SIMPROF	Similarity Profile
SINC	Site of Importance for Nature Conservation
SLM	Sound Level Meter
SLQ	Special Landscape Quality
SM	Scheduled Monument
SME	Small and Medium-sized Enterprise
SMP	Shoreline Management Plans
SNRHW	Stable Non-Reactive Hazardous Waste
SOAEL	Significant Observed Adverse Effect Level
SOM	Size of Maturity
SoS	Secretary of State
SPA	Special Protection Area
SPC	Specific Conductance
SPD	Supplementary Planning Document
SPI	Species of Principal Importance
SPZ	Source Protection Zone
SRMP	Soil Resource Management Plan
SRN	Strategic Road Network
SRO	Strategic Resource Option
SSSI	Site of Special Scientific Interest
SSWSI	Survey-specific Written Scheme of Investigation
SuDS	Sustainable Drainage System

Term	Definition
SVOCs	Semi-volatile organic compounds
SWBGS	Solent Wader and Brent Goose Strategy
SWMP	Site Waste Management Plan
TA	Transport Assessment
TAN	Technical Advice Note
TB	Bovine tuberculosis
TBM	Tunnel Boring Machine
TDI5LM	Trophic Diatom Index from light microscopy
TDS	Total Dissolved Solids
TEMPro	Trip End Model Presentation Program
TGN	Technical Guidance Note
TIN	Triangulated Irregular Network
TMS	Traffic Management Strategy
TN	Total Nitrogen
TOC	Total Organic Carbon
TOT ALK	Total Alkalinity
TP	Total Phosphorus
TPH	Total petroleum hydrocarbons
TPO	Tree Preservation Order
TraC	Transitional and Coastal
TRL	Transport Research Laboratory
TT	Transfer Tunnel
TWG	Technical Working Group
UK	United Kingdom
UKAS	United Kingdom Accreditation Service
UKCEH	UK Centre for Ecology & Hydrology
UKCP	UK Climate Projection
UKHab	UK Habitat Classification
UKTAG	UK Technical Advisory Group
UKWIR	UK Water Industry Research
UN	United Nations
uPBT	Ubiquitous, persistent, bioaccumulative toxic
UrHIA	Urban Health Impact Assessment
UV-AOP	Ultraviolet Advanced Oxidation Process
UWWTD	Urban Waste Water Treatment Directive [40]
UXO	Unexploded Ordnance
VDV	Vibration Dose Value
VMS	Vessel Monitoring System

Term	Definition
VOC	Volatile organic compound
VP	Viewpoint
VRU	Vulnerable Road User
VU	Vulnerable
VX	Vegetation crossing
WCA	Wildlife and Countryside Act 1981 [35]
WCC	Winchester City Council
WCX	Watercourse Crossing
WeBS	Wetland Bird Survey
WER	The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 [7]
WFD	Water Framework Directive [41]
WFD-UKTAG	Water Framework Directive UK Technical Advisory Group
WfLH	Water for Life Hampshire
WHIASU	Wales Health Impact Assessment Support Unit
WHO	World Health Organisation
WHPT	Whalley-Hawkes-Paisley-Trigg
WMP	Water Monitoring Plan
WMS	Water Monitoring Strategy
WRMP	Water Resources Management Plan
WRP	Water Recycling Plant
WRSE	Water Resources South East
WSI	Written Scheme of Investigation
WSR	Water Service Reservoir
WSW	Water Supply Works
WTW	Wastewater Treatment Works
WWIG	Wildlife and Water Interest Group
Zol	Zone of Influence
ZTV	Zone of Theoretical Visibility
µg/m ³	Microgrammes per cubic metre

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The Southern Water logo graphic consists of three white, stylized wavy lines that resemble water waves, positioned to the right of the word "Water".