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Capital Delivery Programme

Sustainability Statement

Bishop and Wolf Pumping Station and Screening Plant

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Executive Summary

Site Name	Bishop and Wolf Pumping Station and Screening Plant
Location	The site is located at the existing South West Water Limited (SWWL) Bishop and Wolf Pumping Station and Screening Plant (SPS), located off Little Porth Road, Hugh Town, St Mary's, Isles of Scilly, TR21 0JG at Grid Reference: SV 90241 10502 (Easting 090241; Northing 010502).
Summary	<p>This Sustainability Statement includes two main elements:</p> <ul style="list-style-type: none"> ➤ A review of relevant sustainability policy and legislation, with a demonstration of how the proposed scheme complies; and ➤ A discussion of sustainable design measures which are being implemented to increase the sustainability of the project and to reduce impacts on the natural environment. <p>The topics covered within Section 4 (Sustainability Considerations) of this report include carbon, energy, sustainable design measures, managing environmental impact and minimising disturbance, landscape and visual impact, flood risk and drainage, sustainable transport, materials and waste, noise, air quality, ecology, site workers and operational considerations.</p> <p>The discussion of sustainable design measures and sustainability considerations also feeds into the carbon assessment, which includes construction materials and their transport. The total emissions for the proposed scheme (including both embodied and operational carbon) equates to 4218.56 tCO₂e. Civil structures and bulk materials were the most carbon intensive categories at 287.20 tCO₂e and 3,831.71 tCO₂e respectively. The 3 embodied carbon material hotspots were ready mix concrete – C32/40, ready mix concrete – general and softwood, accounting for 69.7%, 22.8% and 5.2% of the embodied carbon total, respectively.</p> <p>The bullet points below provide a summary of some of the key measures to be implemented:</p> <ul style="list-style-type: none"> ➤ Upgrading from the existing fixed speed pumps to new energy efficient pumps to reduce consumption during operation; ➤ No soil will be sent to landfill unless contamination is found; a risk assessment is suggested to determine reuse potential for contaminated soil; ➤ Noisy tasks will be minimised by off-site fabrication when possible; localised shielding will be used if noise exceeds agreed levels; ➤ Topsoil stripping will be limited to necessary areas to reduce silt run-off during construction; ➤ There will be control measures to reduce contamination as the site is located within a source protection zone. The potential sources of pollution and mitigation methods are identified within the CEMP (produced by Trant); ➤ Sludge shall be thickened to reduce the amount of material being transported off-site, meaning there will be less unnecessary transportation; ➤ A Site Waste Management Plan (SWMP) is being produced by Trant to ensure that the proposed scheme adheres to the Isles of Scilly Local Plan's (2021) requirements for sustainable material and waste management; ➤ The community will be engaged with to source local materials to support economy and reduce environmental impact of importing materials; and ➤ The proposed scheme can achieve an excess of 10% Biodiversity Net Gain (BNG) in area habitat units within the site through the reinstatement of modified grassland at Parsons Green with either modified grassland (good condition) or other neutral grassland (moderate condition).

1 Introduction

Pell Frischmann has been commissioned by Trant Engineering Limited (Trant, 'the Principal Contractor'), on behalf of South West Water Limited (SWWL, 'the Undertaker'), to produce a Sustainability Statement for the Bishop and Wolf Pumping Station and Screening Plant scheme on the island of St. Mary's, within the Isles of Scilly archipelago (hereafter referred to as the proposed scheme).

The purpose of this Sustainability Statement is as follows:

- To present a statement of sustainable design measures, as identified within the Council of the Isles of Scilly Local Plan; and
- To demonstrate how the proposed scheme will address or meet sustainability policy as set out by:
 - The Local Planning Authority (Isles of Scilly Council);
 - National UK government; and
 - Other relevant bodies.

Following this introductory chapter, the Statement is structured as follows:

- Section 2: Legislation and Policy Review;
- Section 3 Methodology;
- Section 4: Sustainability Considerations;
- Section 5: Summary of Sustainable Design Considerations; and
- Section 6: References.

1.1 Proposed Scheme Location

The site is located at the existing SWWL Bishop and Wolf sewage pumping station (SPS) located off Little Porth Road, Hugh Town, St Mary's, Isles of Scilly, TR21 0JG at Grid Reference: SV 90241 10502 (Easting 090241; Northing 010502).

The existing SPS is located behind retail, leisure, and residential properties along Garrison Lane, in the middle of Hugh Town, and is accessed from Little Porth Road via a shared access point.

The site consists of concrete hardstanding and the existing site. A wall separates the existing Bishop and Wolf pumping station from the Bishop and Wolf pub beer garden. Due to the increase in footprint of the building, a small section of the Bishop & Wolf Pub's outside space will be required.

Figure 1 below shows the Site Location Map for the proposed scheme. It is noted this boundary covers both the permanent works at Bishop and Wolf, as well as the temporary construction / access areas.

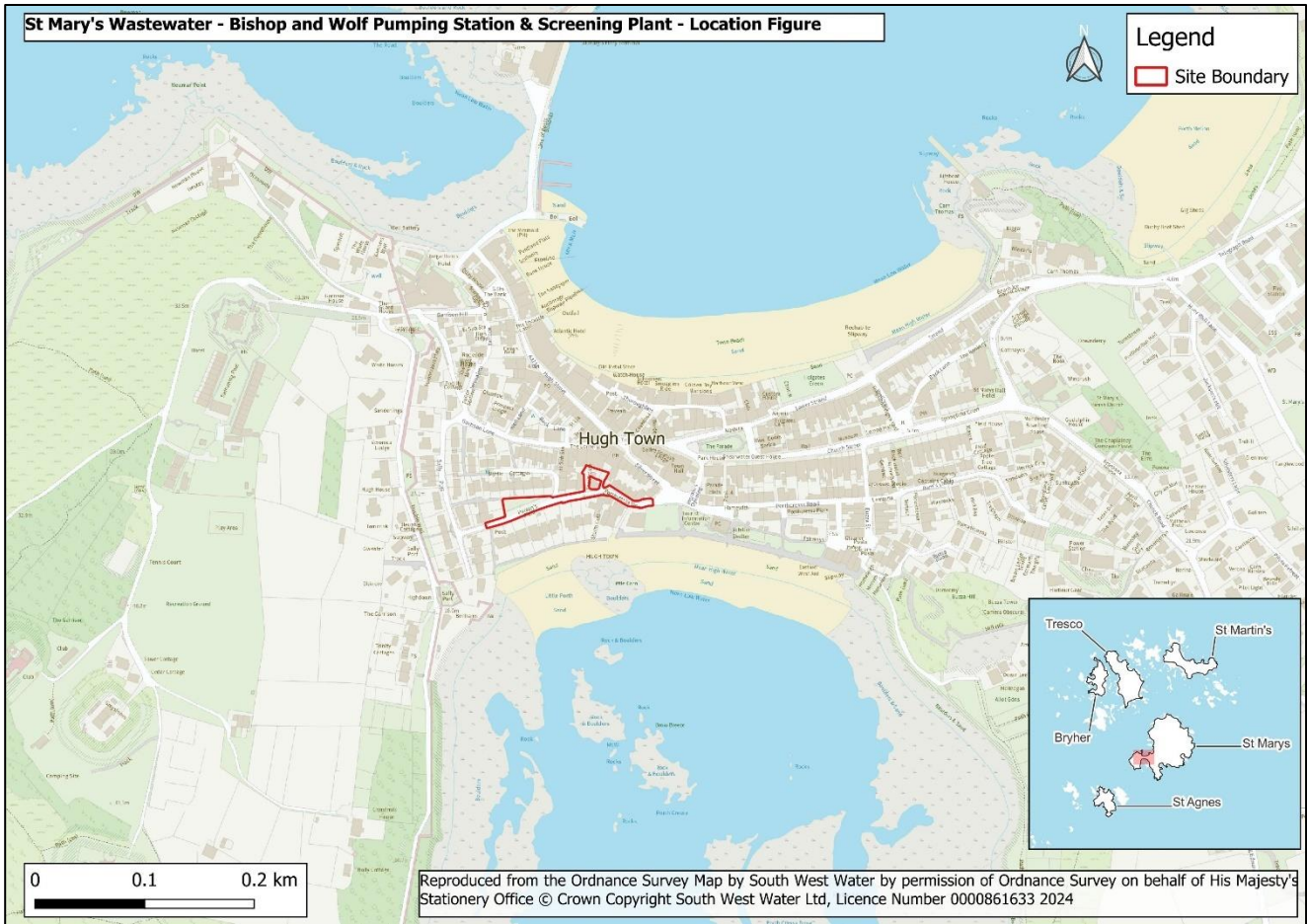


Figure 1: Site Location Map

1.2 Proposed Scheme Description

The proposed scheme consists of the construction of an enlarged wastewater infrastructure building, which will replace the existing Bishop and Wolf SPS building. The new building will house new variable-speed pumps and a new screening plant. The screening plant will remove objects such as rags, paper, plastics, and metals to prevent damage and clogging of downstream equipment, piping, and appurtenances as well as ensuring they do not enter the marine environment. The proposed scheme layout is shown in .

The plant will operate intermittently as required on a 24/7 basis, operation could occur at any time.

The proposed scheme will improve the resilience of the wastewater system, bringing benefit to all residents and visitors to St Mary's. Residents in close proximity will further benefit from the replacement of the existing infrastructure with modern plant, incorporating improved noise attenuation and odour control facilities.

The replacement pumps will be sized to ensure the conditions of the Atlantic CSO permit are met. Screens will be fitted with 3mm mesh to comply with the discharge permit conditions. Screens will have a 30 l/s flow rate.

2 Legislation and Policy Review

A review of relevant national, regional and local policy and legislation in relation to sustainability has been carried out. Sustainability is an important topic, especially within the development and construction industries. Both national and local governments and policy makers are placing greater emphasis on being sustainable, and this has been translated into the planning application process. The legislation and policies have been categorised depending on whether they are national, regional or local, and this chapter has been split into those same categories. The geographic scale categories have been defined as the following:

- National – relating to UK;
- Regional – relating to the South West region;
- Local – relating to the Isles of Scilly only; and
- International Guidelines.

It is noted that a wider Sustainability Strategy (report reference: 107780-PEF-XX-ZZ-T.RP-EN-0001) has been produced for the Capital Delivery Programme for all islands, which also includes a review of relevant legislation and policy.

2.1 National

As part of the legislation and policy review, in Appendix A of this document includes a summary of the legislation and policy. The table also includes a brief explanation of how the proposed scheme complies with the legislation or policy.

The list of legislation and policy included are as follows:

- Legislation (in date order)
 - The Environmental Targets (Biodiversity) (England) Regulations 2023;
 - Environment Act 2021;
 - The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017;
 - The Waste (England and Wales) Regulations 2011;
 - The Promotion of the Use of Energy from Renewable Sources Regulations 2011;
 - Climate Change Act 2008;
 - Urban Waste Water Treatment Regulations 1994;
 - Water Industry Act 1991;
 - Environmental Protection Act 1990; and
 - Wildlife and Countryside Act 1981.
- Policy
 - National Planning Policy Framework (NPPF), 2023;
 - National Planning Policy for Waste, 2014;
 - Our Waste, Our Resources: A Strategy for England, 2018;
 - 25 Year Environment Plan, 2018;
 - Environmental Improvement Plan, 2023;
 - Build Back Better: Our Plan for Growth, 2021; and
 - Net Zero Strategy: Build Back Greener, 2021.

2.2 Regional

No regional legislation was identified and therefore, Appendix A should be referred to for the summary and demonstration of compliance for relevant policy documents.

The list of policies included are as follows:

- South West River Basin Management Plan;

- SWW's 'Our Promise to the Planet: Carbon-busting Net Zero Plan', 2021;
- Cornwall and Isles of Scilly Environmental Growth Strategy, 2021; and
- Climate Adaptation Strategy for Devon, Cornwall, and Isles of Scilly 2023.

2.3 Local

Appendix A should be referred to for the summary of local legislation and policy, alongside the demonstration of compliance.

The list of the legislation and policies included are as follows:

- Legislation (in date order)
 - Isles of Scilly (Application of Water Legislation) Order 2020; and
 - The Environmental Protection Act 1990 (Isles of Scilly) Order 2006.
- Policy
 - Isles of Scilly Local Plan 2015-2030;
 - Isles of Scilly Climate Change Action Plan 2022; and
 - Smart Islands.

2.4 International

- United Nations (UN) Sustainable Development Goals (SDGs).

See Appendix A for details of how the proposed scheme aligns with these international guidelines.

3 Methodology

3.1 Scope of Works Undertaken

3.1.1 Included in Scope

This Sustainability Statement aims to cover the following scope:

- Review of relevant sustainability policy and legislation, with details of how the proposed scheme complies with such policies and law;
- Carbon assessment based on available information associated with the construction and use of the proposed scheme; and
- A discussion of the design and specific measures implemented to act sustainably and reduce impacts on the environment. This forms the main portion of the Sustainability Statement (refer to Section 4 for details).

The Planning Statement should be referred to for the list of deliverables to be submitted for the planning application. Some of which include documents mentioned within this Sustainability Statement.

3.1.2 Excluded from Scope

There were several exclusions to the carbon assessment as the data was not available at this stage (concept design), these were:

- Construction processes (A5 Before Use Stage);
- Maintenance (B2 Use Stage); and
- End of Life (C1-4 End of Life Stage) in terms of decommissioning associated with the proposed scheme, which was not considered at this time.

Additionally, we have only accounted for operational energy usage (B7) (excluding operational water usage), due to lack of available data at this stage.

3.2 Information Sources

Various reports and / or documents produced for the proposed scheme have also been referred to within this statement, including:

- Air Quality and Construction Dust Risk Assessment (report reference: 107780-PEF-ZZ-602-TRP-EN-0002);
- Odour Assessment (report reference: 107780-PEF-ZZ-602-TRP-EN-0003);
- Flood Risk and Drainage Strategy (report reference: 107780-PEF-ZZ-602-TRP-EN-0004);
- Landscape and Visual Impact Appraisal (report reference: 107780-PEF-ZZ-602-TRP-LA-0002);
- Land Contamination Risk Assessment Preliminary Risk Management: Preliminary Risk Assessment (PRA) (report reference: 107780-PEF-ZZ-602-TRP-GG-6601_P02);
- Habitats Regulations Assessment (HRA) Stage 1 Screening Report (report reference: 107780-PEF-ZZ-674-TRP-EN-0001);
- Ecological Impact Assessment (EclA) (report reference: 107780-PEF-ZZ-602-TRP-GE-0001);
- Biodiversity Net Gain (BNG) Assessment (report reference: 107780-PEF-ZZ-602-TRP-GE-0003);
- Landscape and Visual Appraisal (LVA) (report reference: LA5812 B&W LVA-01);
- Construction Traffic Management Plan (CTMP) (report reference: 107780-PEF-ZZ-602-DDR-H-0001); and
- Operational Noise Assessment (report reference: 15290B-20-D02).

3.3 Methodology

3.3.1 Statement of Sustainable Design Measures

A meeting was held in July 2024 with Trant and Pell Frischmann Sustainability, Environment and Design teams. The meeting discussed the sustainability considerations for the proposed scheme which were to be

managed within a Sustainability Identification Framework Tracker (SIFT). This was developed to ensure that the sustainability objectives identified were actioned throughout the project's design and construction. As the project continues, all responsible teams have been providing updates, some of which are captured within this report in the relevant sections. These progress meetings have also provided an opportunity for further discussion around sustainability considerations as the proposed scheme develops.

The design and specific measures being made to embed sustainability and reduce impacts on the environment cover emissions, waste, flood risk and impacts on the nearby community.

Section 4 of this Statement should be referred to for the discussion of the different sustainability considerations made when designing the proposed scheme. Where other reports or documents have been utilised when producing this Statement, the relevant document has been referenced.

3.3.2 Carbon Assessment

To quantify the carbon emissions associated with the proposed scheme and to identify carbon saving opportunities, a carbon assessment has been completed (based on information available).

Scope

The carbon assessment focused on the following carbon life cycle stages, as set out by the PAS 2080 standard (as shown in Appendix D of this Sustainability Statement):

- A1-A4 Before use stage – this includes emissions associated with the construction materials, as well as shipping transport from material suppliers on the mainland to Isles of Scilly and the works site.
- B6 Operational energy use stage – this includes an annual calculation of the site's operational emissions.
- C4 disposal – this includes the waste category of emissions calculated associated with demolition and excavation.

Two differing industry approved carbon tools were used. One specialised in the bulk materials, more typical construction materials and energy usage and the other focused on water industry specific equipment. The Sustainability Team was responsible for the input of the development's design parameter data (handed over from the Design Team) into the carbon tool.

Method

The following steps were followed:

1. A detailed review of the proposed scheme's design parameters, transport, operational energy usage and the units in which they were presented was conducted. Care was taken to ensure that all parameters and data were entered using the correct units of measurement, material categories, items, and types required by the tool.
2. The reviewed design parameter data were then input into an industry approved carbon tool (as described in the Scope section above) to generate a carbon footprint in tonnes of carbon dioxide equivalent (tCO₂e). This included embodied carbon for each category and material in the development, as well as operational emissions based on the operational energy usage data. Where industry-approved carbon tools lacked emissions factors for certain materials, custom calculations were performed. Details of these materials and emissions data are provided in Section 4.1 of this report.
3. The emission results were analysed to generate a percentage breakdown of the total tonnes of carbon dioxide equivalent for each scheme element. This breakdown was used to identify carbon hotspots, which are materials or activities that contribute most significantly to the total emissions.
4. Recommendations for reducing carbon emissions were focused on these identified hotspots. This involved providing details of suitable alternatives with lower embodied carbon emissions to help reduce the overall embodied carbon of the proposed scheme.

There were a number of assumptions and exclusions made when conducting the carbon assessment, these have been listed in Appendix B.

Assumptions & Limitations

The operational electricity usage emissions have been calculated for one year. It is acknowledged that the emissions have been calculated using the UK Government's electricity carbon factor, which is updated each year. Therefore, it is likely that the emissions associated with energy usage could vary slightly for each year that the site is operational based on these changing carbon factors.

There were some assumptions and one exclusion within the carbon assessment which can affect the accuracy of the results based on the preliminary data provided for the assessment. These assumptions and limitations can be seen in Appendix B.

In terms of waste data, it is understood that there is likely to be a volume of demolition and excavation waste that cannot be recycled or reused and therefore will be disposed of via landfill. For the purposes of this assessment, in order to calculate the worst-case emissions scenario and in absence of specific volumes being recycled or reused, all of the demolition and excavation waste has been assessed as being disposed of via landfill.

The carbon tool includes the following categories that are out of scope for the carbon assessment as the proposed scheme is at concept design stage, therefore design parameters are limited across:

- Fuel;
- Water; and
- Business and Employee Transport (although we have received a CTMP we are unable to accurately calculate transport emissions as the distances from the site to the supplier are unknown).

Refer to Appendix C for the details of the elements each stage assesses.

4 Sustainability Considerations

This section of the Sustainability Statement includes the specific measures and design elements which are being implemented to increase sustainability and reduce negative impacts on the environment and local community. This section has been split into different sub-headings for the different topics.

4.1 Carbon

A carbon assessment was conducted for the proposed scheme using the design parameters provided and inputting these into industry approved carbon tools. The scope of the assessment covered can be seen in section 3.3.2 of this report.

Results

Figure 2 below presents the carbon emissions per activity category for the proposed scheme.

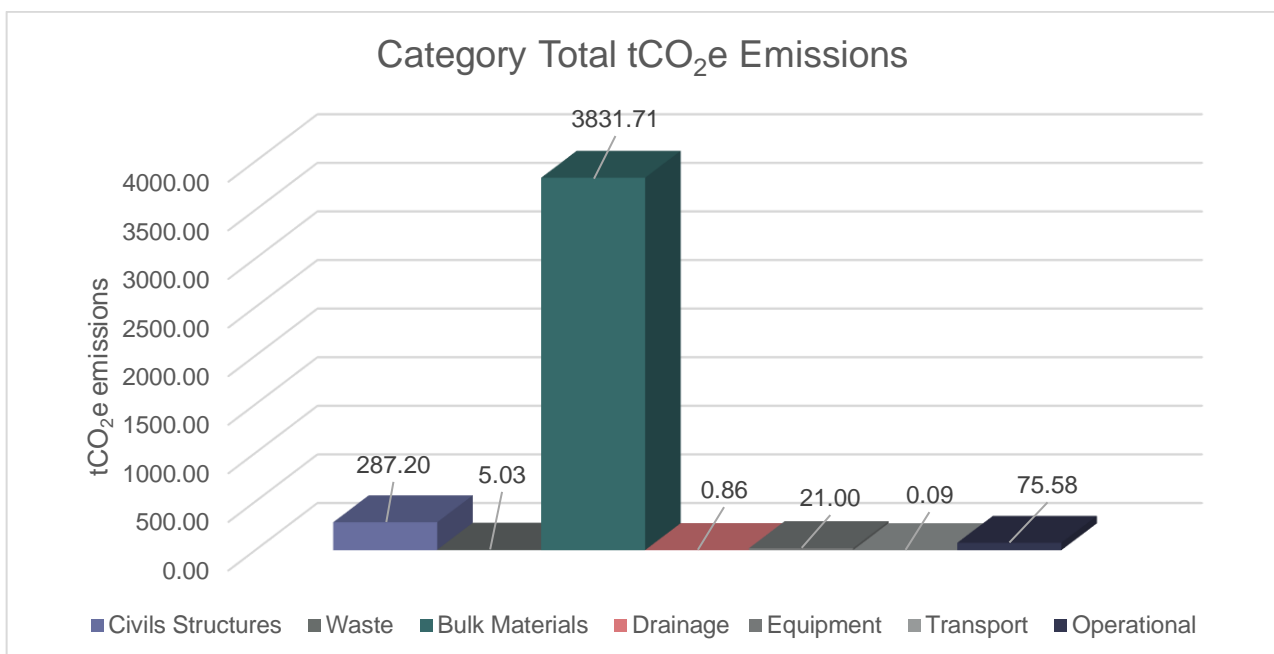


Figure 2: Total tCO₂e Category Emissions of Bishops & Wolf Development

As shown above, the total carbon emissions for the proposed scheme is 4,218.56 tCO₂e.

Civil structures and bulk materials are the most carbon intensive categories at 287.20 tCO₂e and 3,831.71 tCO₂e respectively. The operational emissions at 75.58 tCO₂e are emissions per annum and should be recalculated each year using the updated emissions factors from the UK government.

Hotspot Analysis

This section analyses the material embodied carbon hotspots (A1-A3 stages), excluding the transport and operational categories of the development.

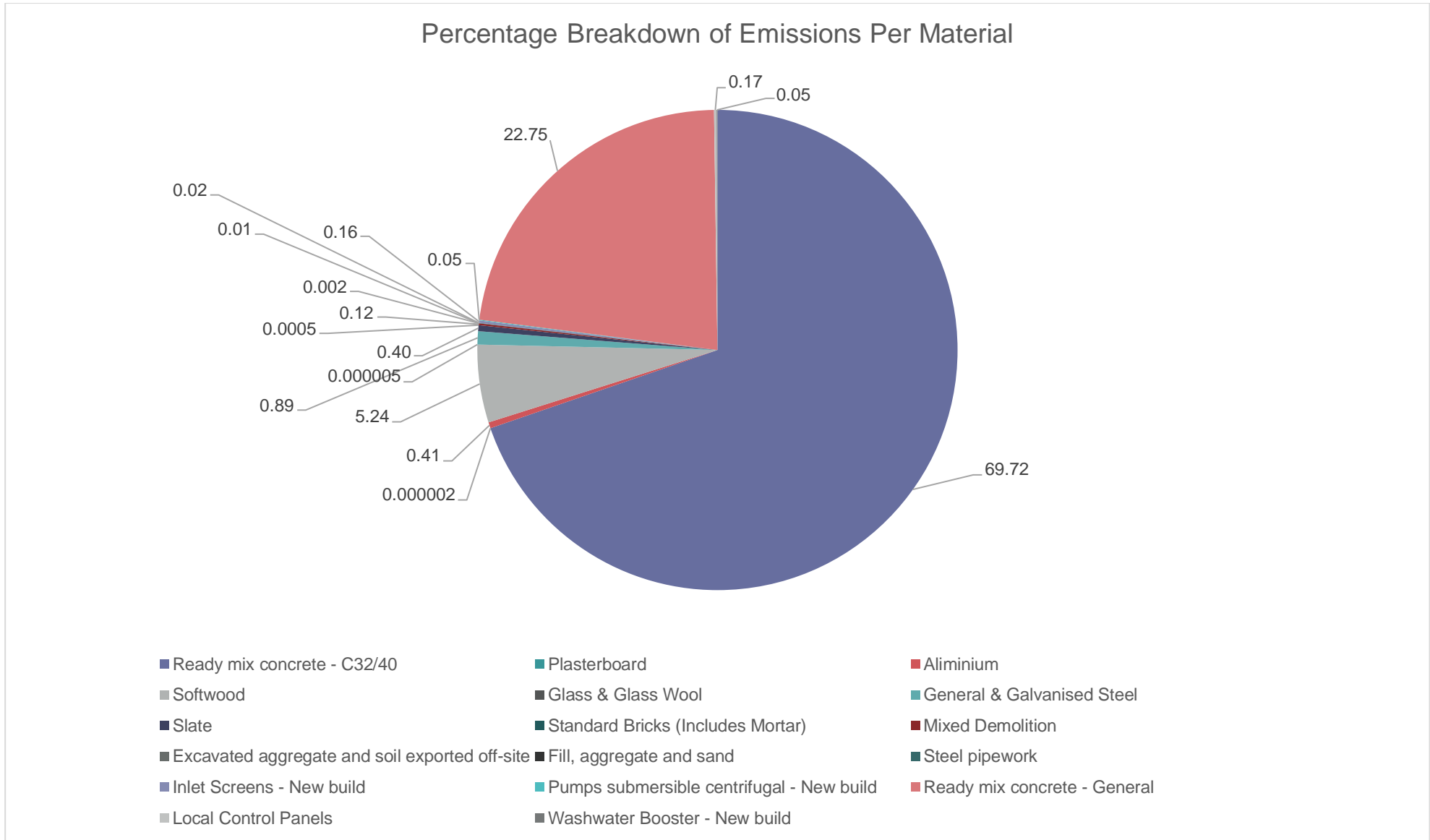


Figure 3: Material Hotspot Analysis of the Proposed Scheme

As shown in Figure 3, the 3 embodied carbon material hotspots were ready mix concrete – C32/40, ready mix concrete – general and softwood, accounting for 69.7%, 22.8% and 5.2% of the embodied carbon total, respectively.

Recommendations

Based on the results of the carbon assessment it is recommended that a lower embodied emission alternative should be used instead of the C32/40 ready mix concrete (the main material emission hotspot). Careful consideration should be taken to ensure that the alternative material has the necessary qualities to ensure suitability for replacing the C32/40. Equivalent alternatives could include:

- 30% fly ash replacement – C32/40 equalling a 6.89% reduction in embodied carbon emissions.
- 35% natural pozzolanic ash replacement - C32/40 equalling a 11.1% reduction in embodied carbon emissions.
- 25% GGBS replacement – C32/40 equalling a 9.4% reduction in embodied carbon emissions.

Additionally, whilst not hotspots, if recycled options are available for materials such as metals, these should be used to further reduce emissions.

4.2 Energy

The primary energy consumption on-site will be electricity, primarily used for operating the screening plant and associated equipment. Electricity will be supplied to the site via a mains connection. The emissions associated with this have been assessed and listed within Section 4.1.

The existing pumps on-site operate at a fixed speed, whereas the new pumps are designed to consume less energy during operation. Selecting energy-efficient pumps should be a priority, with the mechanical team providing kWh ratings to facilitate a comparison between different pump options.

It is not anticipated that any reductions can be made in terms of the operational energy emissions as the electricity is required for the running of the plant however, the client should consider the use of REGO or on-site renewable energy generation. Please refer to (report reference: 107780-PEF-XX-500-T.RP-EN-0002_S3_P01) for more details.

4.3 Sustainable Design Measures

A pumping station and screening plant are integral to sustainable water management, ensuring the efficient delivery and treatment of clean water. These facilities help in filtering and removing debris, contaminants, and pollutants from water sources before it is distributed for use. This process not only results in the production of clean water, which is essential for public health, but also reduces the environmental impact by preventing harmful substances from entering natural water bodies. By providing a reliable supply of clean water, the pumping station and screening plant support the well-being of communities, contribute to the health of ecosystems, and promote long-term environmental sustainability. This sustainable approach to water management enhances the quality of life in the area, fosters economic development, and helps preserve natural resources for future generations.

While the construction of these facilities involves the use of materials with high embodied carbon, such as concrete and steel, these materials are essential for creating durable and long-lasting infrastructure. The robust construction minimises the need for frequent maintenance and repairs, which in turn reduces the ongoing carbon impact associated with such upkeep activities. This durability ensures that the facilities can operate efficiently over many years, maximising their positive environmental impact. Despite the initial carbon footprint, the long-term benefits of reduced maintenance and reliable clean water supply far outweigh the environmental costs, making the development a crucial component of sustainable urban infrastructure.

In line with the Isles of Scilly Local Plan, several Sustainable Design Measures have been implemented throughout the proposed scheme. These have been referred to throughout this Sustainability Statement and are summarised in Section 5.

4.4 Managing Environmental Impacts

It is understood that Trant, as the contractor, are producing a Construction Environmental Management Plan (CEMP) for the proposed scheme, providing a framework for the management of environmental effects and the implementation of measures during the site preparation and construction (including in relation to the proposed construction compound at Parson's Green). The CEMP will identify responsibilities, significant environmental aspects, impacts and controls, control / mitigation measures and company procedures.

A summary of the some of the likely potential impacts and mitigation measures are presented in Table 1 below, although the CEMP produced prior to the construction phase should be referred to for specific details.

Table 1: Environmental Impacts and Controls Summary

Aspect	Impact	Control Measure
Air Quality: Emissions from plant, machinery & vehicles	Air pollution Breach of Non-Road Mobile Machinery or Clean Air Zone legislation Health risk	<ul style="list-style-type: none"> ➤ Display contact details of the person responsible for air quality at the site, including head or regional office information; ➤ Maintain vehicles and equipment to reduce emissions; ➤ Position machinery away from sensitive areas; ➤ Use compliant machinery and designated vehicle routes; ➤ Turn off engines when not in use; no idling; ➤ Use low-sulphur fuel or hydrotreated vegetable oil; ➤ Prefer mains electricity or battery-powered equipment over generators; ➤ No burning of materials; and ➤ Regularly inspect plant for emission compliance and efficiency.
Energy: On site energy consumption	Direct: cost Indirect: greenhouse gas emissions Resource depletion	<ul style="list-style-type: none"> ➤ Reduce consumption to make savings (where possible); and ➤ Use of renewable or electric powered vehicles where appropriate.
Land Quality: Soil waste	Pollution	<ul style="list-style-type: none"> ➤ No soil will be sent to landfill unless contamination is found; a separate risk assessment will determine reuse potential for contaminated soil; ➤ Backfill soils as soon as possible to avoid stockpiling; ➤ Import processed granular materials for backfilling if needed; and ➤ Re-vegetate earthworks and exposed areas / soil stockpiles promptly to stabilise surfaces.
Nuisance (including Noise & Vibration): Noisy construction activities such as the breaking up of concrete or general construction	Nuisance to local population Breach of legislation Ecological disturbance	<ul style="list-style-type: none"> ➤ Follow the Good Neighbour Policy; ➤ Construction contractors must adhere to BS 5228-1 codes of practice to minimise noise emissions; ➤ Erect site fencing before construction begins; ➤ Implement a no-idling policy for vehicles; ➤ Ensure construction plant and equipment comply with UK noise emission limits; ➤ Restrict the use of radios and sound systems on-site; ➤ Minimise noisy tasks by off-site fabrication when possible; use localised shielding if noise may exceed agreed levels; and ➤ Position ancillary plant (generators, compressors, pumps) to minimise disturbance; use acoustic enclosures or shielding if necessary.
Waste: Waste management and disposal	Incorrect classification of waste Legal breach of duty of care Pollution	<p>The Principal Contractor will be responsible for updating and implementing the SWMP prior to commencement of construction. It is expected that the Principal Contractor will manage and store waste on site appropriately, as well as dispose of waste appropriately and with any necessary permits or licences in place.</p> <p>As much waste as possible will be diverted from landfill and recycling / reuse promoted, in line with the waste hierarchy and good practice.</p>

Aspect	Impact	Control Measure
	Litter Increased cost of disposal	
Water: Surface water run-off	Increased surface water run-off during construction Pollution of surface water	<ul style="list-style-type: none"> ➤ Limit topsoil stripping to necessary areas to reduce silt run-off during construction; ➤ Keep spill kits on-site, ensure staff are trained in their use, and aware of emergency spill protocols; and ➤ Safely store hazardous liquids and potential contaminants according to best practice guidelines within the construction compound.
Historic Environment	<p>The Grade II Listed Bishop and Wolf Public House is to the rear of the site.</p> <p>There is some archaeological potential within the vicinity of the site comprising prehistoric to Romano-British funerary and settlement remains.</p> <p>Also potential for post-medieval or earlier structures.</p>	<ul style="list-style-type: none"> ➤ Although disturbance would have been caused when constructing the existing pumping station some small areas have not previously been impacted. Therefore, a programme of archaeological monitoring and recording would be appropriate mitigation in these areas. ➤ Based on the limited nature of the proposed scheme, the small area it covers and the uncertain survival/potential, a watching brief during relevant groundworks appears to be an appropriate means of archaeological mitigation.
Other	Increased Traffic Environmental impact of importing materials	<ul style="list-style-type: none"> ➤ Prioritise the use of local accommodation for staff to minimise transportation needs, reducing the impact on local traffic, reducing emissions associated with travel, and supporting the local economy; ➤ Combined delivery of materials for the different islands and projects to improve efficiency and reduce traffic impacts; and ➤ Engage with community to source local materials to support local economy and reduce environmental impact of importing materials.

4.5 Landscape and Visual Impact

The proposed development comprises the construction of an enlarged wastewater infrastructure building which will replace the existing Bishop & Wolf SPS building. The new footprint will be 6.2 x 11.9m and a height of 3.5m, and will be enclosed by a new stone wall.

Townscape

In terms of townscape character, the main effects will be experienced immediately around the site, and some direct but very small effects on the townscape character from Porthcressa View. At construction stage there will be notable effects to the area of amenity grass at Parson's Green where the compound will be located. There will be a perceptible change to the townscape character that will be negative but temporary in nature.

Visual Impact

From a visual impact perspective, the proposed development of a larger wastewater infrastructure building would have a very limited effect on the receptors passing by the Site and those experiencing the beach front and local amenities. There would be no effect on the users of The Parade or Hugh Street due to the intervening buildings. Residential dwellings that surround the Site and the construction compound would experience a slight adverse effect to their visual amenity. The Right of Light Assessment and Daylight/ Sunlight report is submitted to assess how their amenity is affected.

Therefore, the proposal can be accommodated without undue effects on townscape character or visual amenity. For a more detailed analysis please see the Landscape and Visual Impact Appraisal (report reference: 107780-PEF-ZZ-602-TRP-LA-0002).

4.6 Land Contamination

A Land Contamination Risk Assessment: Preliminary Risk Assessment (PRA) has been conducted for the proposed scheme (report reference: 107780-PEF-ZZ-602-TRP-GG-6601_P02 Bishop_Wolf PS PRA Wip 12), the key points have been summarised below.

The site has likely been a sewage pumping station since the 1980s (possibly earlier) based on evidence from historical mapping and is located within a residential/commercial area of Hugh Town, St Mary's. Made Ground is therefore anticipated at the site and the presence of asbestos in soils cannot be discounted. The proposed development involves minimal below ground excavation and the proposed permanent works scheme is likely only to comprise the extended building and hardstanding across the entire site extent. The presence of sitewide hardstanding significantly reduces potential exposure pathways.

The majority of the site is in an intermediate radon probability area where no protection measures are required. Less than 1% of the site (east) is in a higher radon probability area. It is likely that this higher probability area relates to the presence of Blown Sand Deposits overlying the granite bedrock offsite to the east.

Significant sources of contamination have not been identified on or near the site, however, localised areas of Made Ground are likely to be present at the site relating to the construction of the existing pumping station. The following potential land contamination risks have been provisionally identified:

- Moderate/low potential risks to future end users related to radon (associated with the granite bedrock);
- Low potential risks to construction workers associated with contaminants and asbestos in Made Ground;
- Very low potential risks to future end users associated with contaminants in Made Ground; and
- Very low potential contamination risk to controlled waters (surface water and groundwater) associated with potential Made Ground.

Whilst the mapping indicates that no radon protection measures are required for most of the site due to its intermediate radon probability classification, further investigation should be undertaken to confirm the nature of the superficial deposits below the proposed building. This information and the nature of any embedded ventilation within the new structure will inform the exact requirements relating to radon protection measures, along with liaison with the local planning authority. The remaining risks are considered to be low therefore site intrusive investigation and assessment relating to the potential for geochemical contamination in soils is not required.

4.7 Daylight and Sunlight

A Daylight and Sunlight Report (Neighbouring Properties) (report reference: 107780-PEF-ZZ-602-TRP-EN-0002) has been conducted to mitigate impacts on residential dwellings in proximity to the site.

The assessment was based on the various numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a guide to good practice, 3rd Edition' by P J Littlefair 2022.

The results of this demonstrate that the proposed scheme will have a relatively low impact on the light receivable by its neighbouring properties. Non-compliance with the BRE recommendations is limited to the daylight tests in respect of the bedroom served by window 16 at the Bishop and Wolf Inn. The report concludes that, taking into account the overall high level of compliance with the BRE recommendations, and the mitigating factors, the proposed scheme is acceptable in terms of daylight and sunlight.

4.8 Flood Risk and Drainage

A Flood Risk Assessment and Drainage Strategy (report reference: 107780-PEF-WW-674-TRP-WF-0001) has been produced for the proposed scheme, covering flood risk and management measures. It concludes that, overall, the site can be considered to have a medium flood risk.

The Environment Agency's flood risk data indicates that the entirety of the site is located with Flood Zone 3, which is land categorised as having a 1 in 100 (1%) or greater chance of flooding each year from rivers, or 1 in 200 (0.5%) or greater chance of flooding from the sea. In this instance the risk of flooding is associated with the Celtic Sea.

No main rivers are located within c.1km of the proposed scheme. The Celtic Sea is located c. 145m to the north and c. 120m to the south of the proposed scheme. The site is protected from sea flooding from formal flood defences in the form of a sea wall, which is located to the north and south of the site.

The risk of surface water flooding has been assessed by viewing the Environment Agency's Flood Risk from Surface Water Map. Mapping indicates the majority of the site is located at a medium risk of surface water flooding, meaning the site has a chance of flooding between 1% and 3.3% each year.

The Isles of Scilly Council Preliminary Flood Risk Assessment states that there have been no past local events from groundwater or sewer flooding. Therefore, the risk of groundwater or sewer flooding is considered to be very low.

In terms of flood protection, the buildings have been designed to be able to flood during flood events with a structural slab level (SSL) set at 4.00mAOD and the MCC unit proposed to sit on a mountain frame set at 4.60mAOD which will provide over 100mm of freeboard above the defended water scenario with climate change allowances in place (a 4.49mAOD flood level in the 1% annual exceedance probability event plus climate change).

The proposed drainage of the scheme will allow surface water runoff to discharge in the same way as the current arrangement, through use of gullies to allow surface water to run into a wet well.

4.9 Sustainable Transport

Whilst there will be a small increase in the amount of traffic, this will be limited to the construction period (6 months) and isn't expected to have a significant impact on current local traffic. However, a CTMP (report reference: 107780-PEF-ZZ-602-DDR-H-0001) has been prepared which details how traffic movements will be managed.

The key points highlighted by the CTMP are as follows:

- Plant and materials will be transported to St Mary's via two landing locations: Porthloo Beach or St Mary's Harbour;
- Vehicular access arrangements will require the use of a Banksman to manage pedestrian and vehicle movements during deliveries;
- During the construction of the SPS, up to 22 vehicle movements (two-way) per day are anticipated;
- Proposed vehicle access routes will need to be reviewed by appointed haulage firms delivering materials, equipment, and plant before the construction phase to ensure appropriately sized vehicles are used;
- Parking along sections of Little Porth and south of the Parsons Green construction compound will need to be temporarily suspended during site operational hours;
- A review of road collision data indicates no identified safety issues on the local highway network near the site; and
- Several measures are proposed to reduce the impact of construction traffic on the local highway network.

Carbon emissions have also been calculated for the transport of materials from supplier to site, refer to Section 4.1 for details.

4.10 Materials & Waste

A Site Waste Management Plan (SWMP) has been produced by the Trant to support the planning application for the proposed scheme. This will ensure that the proposed scheme adheres to the Isles of Scilly Local Plan's

(2021) requirements for sustainable material and waste management. A summary of these considerations have been provided below, although the SWMP should be referred to for further information.

The Sustainability Strategy for the Isles of Scilly Capital Delivery Programme includes material management practices which are being implemented and monitored throughout the projects. This includes investigating and minimising waste through recycling, reusing materials, and implementing responsible disposal methods to achieve circular economy principles.

Materials

The project team has considered the type of materials specified and the ways in which these materials will be used to optimise material resource efficiency, identifying opportunities to avoid or minimise waste (using the waste hierarchy).

During the design process, the following items were considered:

- Design and material specifications that minimised waste and enabled the use of recycled products;
- Opportunities where materials could be recovered and re-used as part of the design;
- Changes to construction methods to improve resource efficiency;
- Considerations of off-site manufacturing to minimise waste during construction, which were already incorporated into the design and formed part of the proposal; and
- Use of materials that could be recycled offsite or reused onsite after decommissioning.

Further suggestions to optimise resource efficiency, reduce costs, and aid compliance for the proposed scheme included:

- Considering structure/building form and shape to reduce the use of building materials;
- Considering sizing of structures and components to eliminate unnecessary elements;
- Considering compatibility between design specifications and market supply (e.g., designing in line with standard supply measurements);
- Considering end-of-life implications of design and material decisions (e.g., selecting designs/materials that would be easier to recycle/re-use in the future);
- Considering off-site manufacturing to minimise waste during construction;
- Considering involving contractors and the whole supply chain at pre-design and design stages, particularly for larger schemes and/or packages of schemes; and
- Considering undertaking material evaluation in terms of their recyclability and reclamation before specifying.

Waste

The proposed scheme will generate waste during construction due to the required excavation of hardstanding and need for construction materials, as well as the requirement to demolish existing parts of the site. This section details the procedures that should be followed to minimise waste, using the waste hierarchy to increase reuse and recycling where possible across the project stages. As mentioned above, Trant are producing a CEMP and SWMP to provide further control measures during construction.

The Principal Contractor will be responsible for separating waste streams and ensuring waste is managed appropriately.

Demolition

The existing pumping station building, surrounding wall and concrete hardstanding areas within the site boundary will be demolished as part of the proposed scheme. Demolition arisings from the proposed scheme

are likely to include a combination of concrete, brickwork, timber, roof slate, glass and cabling. The overall waste arising totals are currently anticipated to be **22m³**.

The demolition waste will be dealt with in line with the waste hierarchy, with a good practice target for the volume of demolition waste to be diverted from landfill is 95%.

Excavation

Segregation of excavated soil arisings at the point of excavation is recommended to maximise the potential for arisings to be reused / recycled. If substantial quantities of residual concrete are encountered during construction, then consideration should be given to processing the material into a secondary aggregate for reuse onsite (with the appropriate permits and material management plans in place). The waste hierarchy will be followed to ensure waste is reused where possible (even if treatment is needed), diverting waste from landfill as far as possible.

It is estimated that excavation arisings are likely to be circa **40m³**.

Construction

Construction waste arisings have not been estimated at this stage; however, waste minimisation and management will be followed during construction. The following paragraphs include details of the waste minimisation and management measures that will be followed.

It is recognised there will be opportunities to reduce the use of natural resources through the detailed design processes, procurement, and construction.

Waste produced during all construction activities on site will be subject to the 'Duty of Care' under The Waste (England and Wales) Regulations 2011. It is the joint responsibility between the Principal Contractor and the Client to ensure that waste produced onsite is disposed of in accordance with legislation.

If excavation, or construction waste is to be disposed of, it may require pre-treatment before disposal to landfill. Pre-treatment must be a physical, thermal, chemical, or biological process (including sorting on-site) that changes the characteristics of the waste to reduce its volume, reduce its hazardous nature, facilitate its handling, and enhance its recovery.

4.11 Noise

Noise Consultants Ltd. have carried out an Operational Noise Assessment (report reference: 15290B-20-D02), the findings from this have been summarised below, however for more information please refer to the full report.

As full details of plant, equipment and buildings have not been confirmed, suitable Environmental Sound Criteria (ESC) have been determined.

Construction Noise

Advance notice should be provided for all residential receptors within close proximity to the works. Further mitigation measures to restrict nuisance will be included in the CEMP, however a summary is provided in the subsections below.

The noise performance of construction machinery will be managed by using low-noise equipment, with specific details provided upon confirmation of the plant. Sound-deadening fence panels will be installed at the site boundary wherever practicable. During groundworks, noise suppression measures will include the use of sound-deadening fencing alongside standard dust suppression methods.

Operational Noise

The Operational Noise Assessment has focused on derivation of Electronic Stability Control (ESC), internal reverberant levels reasonable estimate, Noise Sensitive Receptors (NSRs) and Building Fabric Assumptions.

As stated within the noise assessment the following guidelines will be followed:

- Proposed ESC: plant noise rating level to not exceed background levels at nearest NSRs, in line with what is advocated by British Standard 4142:2014 + A1:2019.

4.12 Air Quality

The construction works have the potential to create dust. The impacts of this have been assessed in the Air Quality and Construction Dust Risk Assessment (report reference: 107780-PEF-ZZ-602-TRP-EN-0002), carried out by Air Quality Consultants. During construction it will be necessary to apply a package of mitigation measures to minimise dust emissions. Appropriate measures have been recommended within the assessment report and, with these measures in place, it is expected that any residual effects will be 'not significant'.

The proposed scheme will lead to a small increase in vehicle flows on local roads during construction, which may impact on air quality at existing residential properties along the affected road network. However, these fall well below the relevant screening criteria and can therefore be considered 'not significant'.

Various measures will be taken to ensure that air quality is not compromised during demolition, construction or operation. For example:

- Typical construction site dust control measures will be utilised;
- Ventilation Arrangements: Likely via a discharge stack fed from an odour control system;
- Electric vehicles for employee transportation will be considered; and
- A forced odour control system.

Odour

Air Quality Consultants have also carried out an Odour Assessment for the proposed scheme (report reference: 107780-PEF-ZZ-602-TRP-EN-0003). This has identified the potential for a slight adverse odour effect at sensitive receptor locations, resulting from the operation of the proposed scheme. However, this is not considered to be significant due to the implementation of an odour control unit on site. Screening of wastewater has the potential to cause agitation which may exacerbate the odour, however these odours will be controlled using a scrubber.

4.13 Ecology

An Ecological Impact Assessment (EclA, report reference: 107780-PEF-ZZ-602-TRP-GE-0001) has been carried out for the proposed scheme to identify the ecological designated sites, habitats and species and potential impacts, mitigation and residual impacts, as well as ecological enhancement opportunities.

Baseline

There are no Special Areas of Conservation (SAC) designated for bats within 30km of the Site.

No priority habitats were identified within the Site boundary. The nearest section of priority habitat, lowland heathland, is located 60m southwest, and 195m southeast of the site.

Other priority habitat sites located within the 2km study area for the Proposed Site Options include:

- Coastal vegetated shingle;
- Maritime cliff and slope;

- Reedbeds; and
- Good quality semi-improved grassland.

Potential adverse effects from the project have been identified for nesting birds during the construction phase of the project in the form of mortality. Best practice construction methods should be outlined within the scheme CEMP to help mitigate this.

Habitats

A Habitats Regulations Assessment (HRA) Stage 1 Screening Report (report reference: 107780-PEF-ZZ-674-TRP-EN-0001) has been produced to help identify whether there is the potential for likely significant effects as a result of the proposed scheme.

The proposed scheme is located within proximity to two European Designated Sites: the Isles of Scilly Special Protection Area (SPA), located approximately 80m south of the proposed scheme (at its closest point), and the Isles of Scilly Complex Special Area of Conservation (SAC), located approximately 110m south of the proposed scheme (at its closest point).

Potential impact pathways were considered for the qualifying features of the SPA and SAC. Potential hazards included habitat loss, water pollution and Introduction of Invasive or Non-Native Species. However, no likely significant effects were identified as no works are planned within the SAC or SPA and the proposed works will not interact with the marine environment.

Ecological Enhancements

The following recommendations have been made to further enhance the ecological value of the Site.

The ecological opportunities listed within the EclA include:

Invertebrates:

- Install insect houses, log piles, and compost heaps to increase insect diversity, especially near hedgerows and scrub corners; and
- Incorporate wildflower planting, including potted plants and tubs, to enhance the site for pollinators like bumblebees and butterflies.

Nesting birds:

- Where practical, it is recommended that bird boxes are built into the timber clad section buildings which have a north east facing wall.

Bats:

- Build bat bricks / boxes into structures to provide additional roosting locations.

Green roofs and walls:

- A green roofs and wall should be considered within the design.

BNG

A BNG assessment has been conducted, which concludes that the proposed scheme can achieve an excess of 10% BNG in area habitat units within the site through the reinstatement of modified grassland at Parsons Green with either modified grassland (good condition) or other neutral grassland (moderate condition). Based on retention of the hedgerow alone, the proposed development cannot achieve the 10% BNG in linear hedgerow units. To achieve the 10% BNG score a number of recommendations have been provided, including introducing linear hedgerows or a combination of habitat creation options such as modified grassland and

native hedgerows. For more information refer to the full report (report reference: 107780-PEF-ZZ-602-TRP-GE-0003).

Site Workers & Other Construction Considerations

A number of considerations have been made for site workers and the construction phase, which were agreed in discussions with the undertaker and associated stakeholders. These include:

- The approved construction working hours will be agreed with the Local Planning Authority prior to the start of construction, however it is expected that the following will be in place:
 - no construction plant and / or machinery will be operated before 0800 hours or after 1800 hours on Mondays through to Saturdays.
 - There will be no works involving construction plant and / or machinery on Sunday or Public / Bank Holidays, helping to minimise disturbance;
- A small team of workers will be on site each day during construction. Shift patterns will be staggered to improve the workforce's efficiency and reduce peak demand on local infrastructure. This approach will also reduce pressure on accommodation facilities;
- It is proposed that Parson's Green will be used as a construction storage compound and lay-down area. Parson's Green comprises a 250m² triangular piece of amenity grassland located along Little Port Road, approximately 50m to the west of the Bishop and Wolf Pumping Station;
- It is expected that Parson's Green will be used for the storage of materials and equipment during the construction phase only. It is expected that topsoil will be stripped from Parson's Green and a compacted stone base will be installed. It is expected that the compacted stone aggregate will be separated from the underlying sub-soil using a geomembrane. This will allow the stone aggregate to be recovered during the decommissioning of the compound and will allow the site to be reinstated to amenity grassland, minimising potential for long-term disturbance; and
- During construction it is expected the perimeter of the temporary compound will be secured using Heras type fencing. It is possible that some task lighting may be required to allow for safe working during hours of darkness in winter months. This would be expected to occur from 16:00-18:00 during winter months.

The CEMP has identified construction working conditions to ensure appropriate measures are in place for site workers. For example, working hours include the following embedded mitigation measures:

- Working anti-social hours will be reduced, thereby minimising disturbance to sensitive receptors including residents within the local vicinity;
- If weekend work is required, the local community will be notified;
- Consideration will be given to undertaking low-impact activities on Saturday and Sunday; and
- Avoidance of travel at AM and PM peak periods minimises disturbance to the community.

The CEMP contains a description of project roles and responsibilities to be followed during construction, please refer to this report for more information.

5 Summary

The proposed scheme falls in line with relevant legislation and policy relating to sustainability, as evidenced within the tables in Appendix A of this document.

Overall, the pumping station will enable the efficient transport of water and wastewater, overcoming elevation challenges and ensuring a steady flow. It will play a vital role in flood management by moving excess stormwater away from low-lying areas. The screening plant will improve the efficiency of water and wastewater treatment by removing solid debris, protecting downstream equipment from damage and clogging. Together the proposed scheme will support reliable infrastructure, protect the environment, and enhance public health.

The proposed scheme will benefit the community as the wastewater infrastructure is a vital element of the sanitation arrangements on the island, with the improved screening process providing clean water for residents. This will improve resilience by increasing clean water availability now and in the future.

Carbon

Several exclusions were made in the GHG assessment due to the unavailability of data at this stage, see Section 3.3.2 for more information.

The total emissions for the proposed scheme (including both embodied and operational carbon) equates to 4,218.56 tCO₂e. The total embodied carbon (materials and transport to site) for the proposed scheme is 4,137.95 tCO₂e.

Civil structures and bulk materials were the most carbon intensive categories at 287.20 tCO₂e and 3,831.71 tCO₂e respectively. The 3 material hotspots were ready mix concrete – C32/40, ready mix concrete – general and softwood, accounting for 69.7%, 22.8% and 5.2% of the embodied carbon total, respectively.

Based on the results of the carbon assessment it is recommended that a lower embodied carbon alternative should be used instead of the C32/40 ready mix concrete, as this currently accounts for 69.72% of the carbon assessed. For further information see Section 4.1.

Sustainable Design Considerations

The design of the scheme has also included specific elements to increase sustainability and prevent negative impacts upon the environment. Some sustainability measures discussed within this Statement include:

- Upgrading from the existing fixed speed pumps to new energy efficient pumps to reduce consumption during operation;
- No soil will be sent to landfill unless contamination is found; a risk assessment will determine reuse potential for contaminated soil;
- Noisy tasks will be minimised by off-site fabrication when possible; localised shielding will be used if noise exceeds agreed levels;
- Topsoil stripping will be limited to necessary areas to reduce silt run-off during construction;
- There will be control measures to reduce contamination as the site is located within a source protection zone. The potential sources of pollution and mitigation methods will be identified within the CEMP;
- Sludge shall be thickened to reduce the amount of material being transported off-site, meaning there will be less unnecessary transportation;
- A Site Waste Management Plan (SWMP) is being produced by Trant to ensure that the proposed scheme adheres to the Isles of Scilly Local Plan's (2021) requirements for sustainable material and waste management;
- The community will be engaged with to source local materials to support economy and reduce environmental impact of importing materials; and

- The proposed scheme can achieve an excess of 10% Biodiversity Net Gain (BNG) in area habitat units within the site through the reinstatement of modified grassland at Parsons Green with either modified grassland (good condition) or other neutral grassland (moderate condition).

This Sustainability Statement, alongside other relevant documents, demonstrates that sustainability has been considered throughout the design of the proposed scheme.

Appendix A Policy and Legislation Table

Legislation/ Policy Name	Summary	Demonstration of compliance
International Guidance		
UN Sustainable Development Goals	The Sustainable Development Goals or Global Goals are a collection of 17 interlinked global goals designed to be a "blueprint to achieve a better and more sustainable future for all". The SDGs were set up in 2015 by the United Nations General Assembly and are intended to be achieved by the year 2030.	<p>The proposed scheme makes several sustainability considerations across the SDG categories:</p> <ul style="list-style-type: none"> ➤ Goal 6: Clean Water and Sanitation; ➤ Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development; and ➤ Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. <p>See Section 4 for details of these sustainability considerations.</p>
National Policy		
Waste Strategy for England (WSE 2007)	The Waste Strategy for England (WSE) 2007 and its Annexes, together with Planning Policy Statement 10 Planning for Sustainable Waste Management (PPS10) is part of the implementation for England of the requirements within the Framework Directive on Waste, and associated Directives, to produce waste management plans. This replaces the previous waste strategy for England (Waste Strategy 2000).	The proposed scheme will effectively manage waste in line with WSE 2007. For more information see Section 4.10.
Wastewater Treatment in England	This guideline is relevant to water companies in England and Wales. It is also relevant to those producing regional plans.	The proposed scheme is to manage wastewater, therefore the scheme description details demonstrate alignment with these guidelines, see Section Error! Reference source not found. for details.
National Planning Policy Framework (NPPF), 2023		
Section 2: Achieving sustainable development	This section of the policy framework states that the purpose of the planning system is to contribute to the achievement of sustainable development. The NPPF highlights the three pillars of sustainability with an economic, social and environmental objective. For the environmental objective, this includes "making effective uses of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy".	This Sustainability Statement demonstrates that there has been a consideration of sustainability throughout the design of the proposed scheme. For the key sustainable design considerations please refer to Section 4.
Section 14: Meeting the challenge of climate change, flooding and coastal change	This part of the NPPF notes the planning system should support the transition to a low carbon future in a changing climate, taking account of flood risk and coastal change (issues highly relevant to the Isles of Scilly). New development should be planned for in ways that "a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures" and "b) can help to reduce greenhouse gas emissions, such as through its location, orientation and design". Regarding flood risk, an emphasis is placed on incorporating sustainable drainage systems.	This Sustainability Statement covers the approach to various aspects relevant to this section of the NPPF, including approach to drainage, discussion of flood risk, and a carbon assessment to measure emissions associated with the proposed design. This policy is translated to the Isles of Scilly within various sustainable policies within the Local Plan, including policy SS7. See Section 4 for more information.

Legislation/ Policy Name	Summary	Demonstration of compliance
Section 15: Conserving and enhancing the natural environment	There cannot be a presumption in favour of sustainable development if a proposal is to have a significant adverse impact upon the natural environment, such as habitats. Development should also be appropriate for its location, taking into account potential pollution effects on health, living conditions and the natural environment.	A BNG assessment has been conducted, which concludes that the proposed scheme can achieve an excess of 10% BNG in area habitat units within the site through the reinstatement of modified grassland at Parsons Green with either modified grassland (good condition) or other neutral grassland (moderate condition).
Section 16: Conserving and enhancing the historic environment	This section of the NPPF relates to the issue of sustainability through recognising the importance of the historic environment for sustainability communities in terms of boosting the economy.	A Historic Environment Impact Assessment has been conducted demonstrating compliance with this policy. Mitigation methods: <ul style="list-style-type: none"> ➤ A programme of archaeological monitoring and recording would be appropriate mitigation in areas with no prior disturbance; and ➤ A watching brief during relevant groundworks for archaeological mitigation.
Section 17: Facilitating the sustainable use of minerals	This part of the NPPF recognises the finite nature of minerals and the need for best use of such materials in order to ensure there is a sufficient supply for providing new infrastructure, buildings, energy and goods to the country.	A Site Waste Management Plan is being produced to support the planning application, which records how the proposed scheme will manage its waste and follow the waste hierarchy, including ways the scheme will reduce its material usage and waste. For more information see Section 4.10. This policy is translated to the Isles of Scilly within policy OE6 of the Isles of Scilly Local Plan.
National Planning Policy for Waste, 2014	This document sets out the government's ambition to be more sustainable regarding resource use and management. In terms of determining planning applications, the policy states that non-waste developments should make sufficient provision for waste management such as providing adequate storage facilities on site, and the handling of waste arising from a development's construction and operation should maximise reuse or recovery opportunities and minimise off-site disposal which is in line with the waste hierarchy.	As mentioned above, Section 4.10 should be viewed for details of how the proposed scheme will manage waste (including the implementation of a SWMP and CEMP).
Our Waste, Our Resources: A Strategy for England, 2018	This document sets out the strategy for England regarding waste and resources. It covers various topics, including sustainable production and the circular economy, managing waste and resource recovery, and cutting down on waste.	As demonstrated within Section 4.10, the aim is to divert as much waste as possible from landfill and instead reused on site or recycle / reuse offsite. This supports the aims of the waste and resource strategy.
25 Year Environment Plan, 2018:		
Section 1: Using and managing land sustainability	This part of the Plan includes several policies. Those relevant to the proposed scheme include reducing risks from flooding and coastal erosion, embedding an 'environmental net gain' principle for development and efficient land use planning.	A Flood Risk Assessment was conducted for the proposed scheme to ensure the proposed scheme doesn't increase the risk of flooding. Since the proposed scheme is making use of an existing site, no new land is being used and there will be no increase of impermeable surfaces, addressing efficient land use planning. For more information refer to Section 4.8.
Section 2: Recovering nature and enhancing the beauty of landscape	Focuses on restoring biodiversity, improving habitats, and enhancing landscapes. It outlines actions like creating wildlife corridors, restoring peatlands, and better managing natural spaces to protect wildlife and improve the natural environment for both nature and people.	An EcIA has been produced to evaluate the ecology baseline and recommend measures to mitigate the impact from construction of the proposed scheme. Additionally, ecological enhancement opportunities have been highlighted, for further information see Section 4.13.

Legislation/ Policy Name	Summary	Demonstration of compliance
Section 4: Increasing resource efficiency and reducing pollution and waste	Focuses on promoting the efficient use of resources, reducing waste, and cutting pollution. It outlines measures to encourage recycling, reduce single-use plastics, and improve waste management, aiming to minimise environmental harm and promote a circular economy.	Section 4.10 of this Statement highlights the sustainable management of materials and waste using the SWMP.
Section 6: Protecting and improving our global environment	Focuses on the UK's role in tackling global environmental challenges. It outlines actions to reduce global environmental degradation, support biodiversity conservation, and promote sustainable development, both domestically and internationally, in line with global environmental goals.	Section 4 of this Statement references the design measures being implemented by the proposed scheme which includes maximising sustainable opportunities, ensuring resilience against climate change (such as through considering climate change allowances as part of the development of the drainage strategy) and reducing impacts upon the natural environment.
Environmental Improvement Plan 2023	This is the first revision to the 25 Year Environment Plan. It makes mention of key policies needed to deliver the set targets, such as promoting Biodiversity Net Gain, use of nature-based solutions to reduce pollution (such as sustainable drainage), sustainable land use, sustainable use of natural resources, building climate resilience and tackling non-native species.	Whilst not directly policy, this Plan provides a revision of the 25 Year Environment Plan. Compliance with relevant points within the Plan are covered in the rows above. With the works taking place on a small island, there is an emphasis on ensuring that the environment is left in a better state than before (such as preventing introduction or spread of non-native species like rats or Dutch elm disease).
Build Back Better: Our Plan for Growth, 2021	Whilst this document does not include specific policies, it does cover the overarching growth plan for the UK, including the transition to net zero and production of greener infrastructure and development. The natural environment will be prioritised and should be left in a better condition than it was found in.	Whilst this Statement and the proposed scheme are not directly linked with this Plan, the Statement does cover measures that demonstrate how the proposed scheme will not have an adverse impact on the natural environment and will provide a measure of the expected emissions associated with the construction and operation.
Net Zero Strategy: Build Back Greener, 2021	This document includes specific policies relating to UK power, fuel supply, industry, heat and buildings, transport, natural resources and waste, and greenhouse gas. Whilst this policies are mostly relevant to the UK as a whole, the document demonstrates the UK's ambition to be greener and meet its net zero by 2050 target.	Whilst this Sustainability Statement and the proposed scheme are not directly linked with this Strategy, the design will limit emissions associated with construction. Through demonstrating how the proposed scheme will act sustainably, it works towards this strategy of reducing emissions and greening development. A low carbon material alternative to some of the ready mix concrete is also recommended to be taken forward to the detailed design / construction period.
National Legislation		
EU Waste Framework Directive 2018	The EU Waste Framework is a Directive that provides the overarching legislative framework for the collection, transport, recovery and disposal of waste, and includes a common definition of waste. The Directive requires all Member States to take the necessary measures to ensure that waste is recovered or disposed of without endangering human health or causing harm to the environment and includes permitting, registration and inspection requirements. The Directive also requires Member States to take appropriate measures to encourage firstly, the prevention or reduction of waste production and its harmfulness and secondly the recovery of waste by means of recycling, re-use or reclamation or any other process with a view to extracting secondary raw materials, or the use of waste as a source of energy. The Directive's overarching requirements are supplemented by other Directives for specific waste streams.	The proposed scheme will effectively manage waste in line with the EU Waste Framework Directive 2018. It will do so by using a SWMP to ensure the sustainable management of materials and waste, aligning with the waste hierarchy and ensuring that a waste 'Duty of Care' is followed. For more information see Section 4.10.

Legislation/ Policy Name	Summary	Demonstration of compliance
The Infrastructure Planning (Water Resources) (England) Order 2019	Establishes a streamlined planning process for nationally significant water infrastructure projects in England, such as large reservoirs or water transfer systems. It defines thresholds for such projects, requires environmental assessments, and ensures stakeholder consultation. The order aims to facilitate the development of critical water resources infrastructure while safeguarding environmental and community interests.	The proposed scheme adheres to this piece of legislation by following the thresholds such as the environmental assessments and stakeholder consultation. The key environmental considerations have been listed in Table 1. The Sustainable Design Considerations throughout Section 4 also detail measures being taken to reduce the proposed scheme's impact on the environment. Additionally, other reports that have been referred to throughout this Sustainability Statement demonstrate compliance such as the CEMP, EclA and SWMP.
The Promotion of the Use of Energy from Renewable Sources Regulations (as amended)	The Regulations, as amended following the UK's exit from the EU, sets out a target for the UK of at least 15% for the share of energy from renewable sources in 2020. The Regulations aim to increase the proportion of energy from renewable sources. This is the UK equivalent of the EU's 2019 Directive on the same topic.	Whilst this is not directly applicable to the proposed scheme, efforts have been made to reduce greenhouse gas emissions. Please see Sections 4.1 and Error! Reference source not found. for more information. It is also possible that task lighting during the construction phase could be solar-fed.
Climate Change Act 2008 (as amended)	The Act, as amended, sets the framework for the UK to achieve its long-term goals of reducing GHG emissions by at least 34% against the 1990 baseline and by 100% by 2050 (Net Zero by 2050), whilst also ensuring that steps are taken towards adapting to the impacts of climate change. The Act has introduced a system of carbon budgeting for the UK which aims to constrain the total amount of carbon emissions in a given time period. The Act also sets out a procedure for assessing the risks of the impact of climate change for the UK and places a requirement on the Government to develop an adaptation programme policy.	Whilst this legislation is not directly applicable, through efforts to reduce GHG emissions (including carbon), the proposed scheme supports the aim of the UK Government to reduce emissions and take account of climate change implications. See Sections 4.1 and Error! Reference source not found. for more information.
Climate Change Act 2008 (2050 Target Amendment) Order 2019	An Act to set a target for the year 2050 for the reduction of targeted GHG emissions; to provide a system of carbon budgeting; to establish a Committee on Climate Change; to confer powers to establish trading schemes for the purpose of limiting GHG emissions or encouraging activities that reduce such emissions or remove GHG from the atmosphere; to make provision about adaptation to climate change; to confer powers to make schemes for providing financial incentives to produce less domestic waste and to recycle more; to make provision about the collection of household waste; to confer powers to make provision about charging for single use carrier bags; to amend the provisions of the Energy Act 2004 about renewable transport fuel obligations; to make provision about carbon emissions reduction targets; to make other provision about climate change; and for connected purposes.	Whilst this legislation is not directly applicable, through efforts to reduce GHG emissions (including carbon) and reduce waste, the proposed scheme supports the aim of the UK Government to reduce emissions and take account of climate change implications. See Sections 4.1 and Error! Reference source not found. for more information.
Environment Act 2021	The Act aims to provide a new legal framework for environmental protection (particularly since the UK no longer comes under EU law). The Act prioritises the topics of air quality, water, biodiversity, resource efficiency and waste reduction. The Act also sets out the mandatory requirement for 10% biodiversity net gain (from November 2023) for planning permission projects (with some exceptions).	This Sustainability Statement discusses the design approach and any specific measures that are being taken towards increasing sustainability, minimising impacts on the natural environment and optimising the design to reduce waste and increase resource efficiency. See Section 4 for more information.
Wildlife and Countryside Act 1981 (as amended)	This Act is the primary piece of legislation which protects animals, plants and habitats in the UK. The Act also has a schedule of non-native animal and plant	An EclA has been produced to evaluate the ecology baseline and recommend measures to mitigate the impact from construction of the

Legislation/ Policy Name	Summary	Demonstration of compliance
	species. This is of relevant to development schemes which may involve disturbance of the natural environment, including habitats, flora and fauna.	proposed scheme. Additionally, ecological enhancement opportunities have been highlighted, for further information see Section 4.13. A BNG assessment has been conducted, which concludes that the proposed scheme can achieve an excess of 10% BNG in area habitat units within the site through the reinstatement of modified grassland at Parsons Green with either modified grassland (good condition) or other neutral grassland (moderate condition).
Water Framework Directive Regulations 2017	The Regulations transpose the EU Water Framework Directive (WFD) into UK law. The WFD sets out a framework which aims to protect and improve the ecological and chemical health of rivers, lakes, estuaries, coastal waters and groundwaters.	The Isles of Scilly is covered by two WFD water bodies (one coastal and one groundwater). This Sustainability Statement has included measures to manage surface water and to reduce risk of pollution, which will reduce risks to the water environment. Additionally best practice measures will be followed as outlined in the CEMP. See Section 4.4 for more information. Additionally, it is acknowledged that by providing screening where there previously was not a screening system in place, water quality is improved.
The Waste (England and Wales) Regulations 2011 (as amended)	The Regulations, as amended, implements the revised EU Waste Framework Directive and sets out requirements for the management of waste (including collection, transport, recovery and disposal) in England and Wales. The Regulations also gives details on applying the waste hierarchy and creation of waste prevention programmes and waste management plans.	Waste management measures have been applied alongside and as part of the SWMP. The waste hierarchy has been adhered to, which includes diverting waste from landfill as far as possible. The Sustainability Statement makes mention of the target percentage of waste diversion from landfill associated with demolition waste. Please see Section 4.10 for more information.
The Environmental Targets (Biodiversity) Regulations 2023	This document includes targets for the long-term biodiversity for the restoration or creation of wildlife-rich habitat is that on or after the day these Regulations come into force, more than 500,000ha of a range of wildlife-rich habitats are to be restored or created by 31st December 2045.	An EclA has been produced to ensure no significant impact to the sites ecology and habitats. This includes measures such as implementation of bat and bird boxes in the nearby existing woodland and providing wildflower planting (including potted plants) to enhance the site for pollinating invertebrates. BNG will also be implemented for the proposed scheme. Please see Section 4.13 for more information.
Water Industry Act 1991	The Water Industry Act 1991 provides the legal framework for water supply and wastewater management in England and Wales. It defines the duties and powers of water companies, ensures the regulation of wastewater treatment, and protects the environment from harm caused by inadequate water infrastructure or pollution.	The proposed scheme will adhere to the Water Industry Act (1991), following the wastewater treatment regulation by multiple layers of screening, protecting the environment from pollution by upgrading the current process used which is deemed inadequate.
Environmental Protection Act 1990	The Environmental Protection Act 1990 governs environmental management and pollution control in the UK. It includes provisions for the disposal of waste, controls emissions and discharges, and ensures industries, including wastewater management, minimise environmental harm and protect public health.	This Sustainability Statement has outlined how the proposed scheme will manage waste, using a SWMP (Section 4.10). Additionally, potential sources of pollution and mitigation methods will be identified within the CEMP to minimise environmental harm and protect public health, with example measures listed in Table 1 in Section 4.4.
Water Resources Act 1991	The Water Resources Act 1991 regulates the use and protection of water resources in England and Wales. It requires permits for wastewater discharges	The proposed scheme addresses this act by increasing the safety of drinking water for the IoS by upgrading the current screening process. Further details of pollution control will be detailed in the CEMP.

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	into water bodies, enforces water quality standards, and aims to prevent pollution, safeguarding aquatic ecosystems and public water supplies.	
Urban Waste Water Treatment Regulations 1994	The Urban Waste Water Treatment Regulations 1994 implement EU Directive 91/271/EEC in the UK, setting minimum standards for the collection, treatment, and discharge of urban wastewater. It aims to protect the environment by ensuring effective treatment of sewage and reducing water pollution.	The proposed scheme addresses this act by increasing the safety of drinking water for the IoS by upgrading the current screening process. Further details of pollution control will be detailed in the CEMP.
Regional Policies		
SWW ' Our Promise to the Planet: Carbon-busting Net Zero Plan', 2021		
Overview	This document discusses the SWW pledge to achieve Net Zero carbon for operational emissions by 2030, and Net Zero by 2045 for all other carbon emissions (including from suppliers and construction activities)	Whilst the proposed scheme is not directly relevant to the net zero targets, efforts are being made to reduce emissions from materials, energy, transport and waste associated with the proposed scheme. See Section 4 for more information.
Sustainable Living	One of the key pillars within SWW's Net Zero Plan, this element of the strategy focuses on reducing emissions associated with operation, such as increasing energy efficiency, use of low carbon fuel sources, as well as reducing leaks and help customers to use less water.	As a SWW project, measures should be in place to maximise efficiency regarding energy, water and resources and waste should be minimised. This Statement discusses how such measures have been established, see Section 4 for more information.
Reversing Carbon Emissions	This element of the strategy focuses on reversing carbon emissions from core SWW activities, as well as supporting low carbon footprint processes.	The proposed scheme will conduct BNG which has carbon sequestration benefits through planting. The BNG assessment concluded that the proposed scheme can achieve an excess of 10% BNG in area habitat units within the site through the reinstatement of modified grassland at Parsons Green with either modified grassland (good condition) or other neutral grassland (moderate condition). Additionally, efforts have been made to reduce emissions from materials, energy, transport and waste.
Cornwall and Isles of Scilly Environmental Growth Strategy, 2021	This strategy sets out a long-term framework for preserving and enhancing the natural environment across Cornwall and the Isles. The tackling of invasive species forms part of the vision.	A summary of measures being taken to reduce impacts on the natural environment are listed in Table 1. This includes measures for pollution control such as not burning materials and ecology such as only removing vegetation when essential (amongst others). Additionally, the ecological value has been assessed and mitigation methods have been suggested to prevent adverse impacts as detailed in Section 4.13. Additionally, a BNG assessment has been conducted, which concludes that the proposed scheme can achieve an excess of 10% BNG in area habitat units within the site through the reinstatement of modified grassland at Parsons Green with either modified grassland (good condition) or other neutral grassland (moderate condition).
Climate Adaptation Strategy for Devon, Cornwall, and Isles of Scilly- Consultation Draft 2023	This strategy includes both an assessment of climate change risks and opportunities for Devon, Cornwall and Isles of Scilly, as well as setting out strategic adaptation plan and a 5-year action plan for regional collaboration. Key climate change impacts assessed included river and surface water flooding, sea level rise (coastal flooding and erosion), reduced water availability (drought conditions) and temperature change and extreme heat / cold events, amongst other things.	This Sustainability Statement mentions some of the topics discussed within the Strategy document, including the approach to drainage and surface water management, as well as measures to reduce waste and carbon (which are connected with the issue of climate change).

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South West River Basin Management Plan	The South West River Basin Management Plan outlines strategies to protect and improve water quality across the South West, including Devon and Cornwall. Developed by the Environment Agency, it addresses pollution, over-abstraction, and climate change impacts to achieve Water Framework Directive goals. The plan promotes collaboration and natural solutions, such as sustainable drainage and habitat restoration, while prioritising investment in wastewater infrastructure to enhance water quality and biodiversity.	The proposed scheme directly addresses this policy by providing new wastewater infrastructure with improved levels of screening to improve water quality for residents across the Isles of Scilly. It also does so whilst minimising the negative environmental impacts from construction, using a CEMP to ensure this is maintained.
Local Policy		
Isles of Scilly Local Plan 2015-2030		
SS1: Principles of Sustainable Development	<p>Required to show how the development:</p> <ul style="list-style-type: none"> a) Is conserving and enhancing the outstanding natural, built and historic environment. b) Is locating, designing and constructing development where it makes a positive contribution to reducing the islands' carbon footprint and consumption of natural resources. c) Is improving accessibility and creating a network of safe and well-connected routes by integrating measures that encourage and promote walking, cycling and electric vehicles as part of any new development wherever opportunities allow. d) Is promoting the value of biodiversity, geodiversity and soils, including the potential contribution from natural capital and ecosystem services. e) Is taking into account the long-term implications of climate change and rising temperatures for flood risk, coastal change, water supply, biodiversity and landscapes. f) Is promoting cohesive and resilient communities on each island. g) Is generating and sustaining economic activity. h) Ensuring designs and materials are otherwise sustainable in a complementary and appropriate manner. i) The development should complement distinctive local features and patterns, with regard given to the orientation and character of the immediate area. j) As a minimum, bird and bat boxes should be incorporated into the design of buildings or extensions, with measures to reduce any impacts from current threats to biodiversity on the islands, including rats. 	<p>The proposed scheme is making use of an existing site, therefore minimal impacts are made to the current environment.</p> <p>An EclA has been produced to assess the ecology and habitats currently present and make improvement recommendations (including bat and bird boxes in nearby woodland). For further information refer to Section 4.13.</p> <p>Various assessments have been undertaken to assess impacts on the environment and suggest appropriate mitigation, such as a Historic Environment Impact Assessment, Flood Risk Assessment and Drainage Strategy, carbon assessment (included within this document), various ecological reports, SWMP and CEMP, amongst others. All these help the proposed scheme adhere to the principles outlined in this policy.</p>
SS2: Sustainable Quality Design and Place-making	<ul style="list-style-type: none"> a) By ensuring that buildings can easily be altered and adapted to meet changing social and economic conditions and are resilient to climate change, including features to mitigate or enable rapid recovery from a flooding event where recommended in a Flood Risk Assessment. b) By providing opportunities for achieving measurable net gains in biodiversity by ensuring that natural and semi-natural features are created and enhanced as integral elements of the design, through the provision of features such as bird 	<p>Whilst not all of these points are relevant to the proposed scheme, the topics discussed within this policy have been considered and applied to the design (where feasible), such as recommending biodiversity / ecological enhancements (Section 4.13), undertaking of a SWMP (Section 4.10) to promote reuse and recycling of materials and diversion of waste from landfill, and production of a Flood Risk Assessment and implementation of a drainage strategy and surface water management measures.</p>

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	<p>and bat boxes, and by incorporating measures that support the removal of any threats to the islands' biodiversity.</p> <p>c) By promoting physical activity by incorporating Sport England Active Design principles wherever appropriate.</p> <p>d) By requiring sensitively designed adverts and signage that are appropriate and sympathetic to their local setting in terms of scale, design and materials.</p> <p>e) By incorporating measures to reduce any actual or perceived opportunities for crime or anti-social behaviour, and which promote safe living environments minimising the consumption of resources by requiring sustainable construction and design by:</p> <ul style="list-style-type: none"> I. Incorporating high standards of energy efficiency and maximising opportunities for the micro generation of renewable, low-carbon and decentralised energy, and where appropriate plugged into the Smart Grid. II. Incorporating passive design measures for heating, cooling, ventilation and natural light, to reduce overall energy demand and improve energy efficiency. III. Using natural resources more prudently, including the use of locally sourced, recycled or low carbon materials in construction where they are available and represent a viable option. IV. Reducing pressure on water resources and increasing re-use by incorporating effective water management measures, including Sustainable Urban Drainage Systems, green roofs and water saving devices, and rain/grey water collecting and recycling facilities. V. Providing appropriate vermin-proof waste and recycling storage appropriate for the scale of development proposed, and provision for kerbside waste and recycling collections consistent with the islands' waste management practices. <p>f) Development proposals that involve the construction or conversion of buildings will need to be supported by a statement of Sustainable Design Measures (SDM) and a Site Waste Management Plan (SWMP)</p>	<p>Additionally, a BNG assessment has been conducted, which concludes that the proposed scheme can achieve an excess of 10% BNG in area habitat units within the site through the reinstatement of modified grassland at Parsons Green with either modified grassland (good condition) or other neutral grassland (moderate condition).</p>
SS5: Physical Infrastructure	<p>Development proposals, where they comply with other relevant policies within this Local Plan, will be supported where they are:</p> <ul style="list-style-type: none"> a) Evidenced by the necessary existing or planned physical infrastructure to enable its delivery. b) Or for new physical infrastructure where this makes a positive contribution to the sustainability of the islands. 	<p>The proposed scheme will benefit the community as the wastewater infrastructure is a vital element of the sanitation arrangements on the island, with the improved screening process providing clean water for residents. This will improve resilience by increasing clean water availability now and in the future. The works also involve an existing location, although it is acknowledged that there will be demolition of existing structures and creation of new assets.</p>
SS6: Water and Wastewater Management	<p>Development that requires a new connection to mains or private drinking or wastewater systems will be permitted provided that:</p> <ul style="list-style-type: none"> a) It does not result in the deterioration of, and where possible assists in improving water quality, to support the attainment of the requirements of the Water Framework Directive. 	<p>The proposed scheme provides upgrades to an existing wastewater infrastructure facility, which directly addresses this policy. The works will provide a key wastewater management service on the island, necessary for protecting human health.</p>

Legislation/ Policy Name	Summary	Demonstration of compliance
	<p>b) It complies with national policy and guidance in relation to flood risk.</p> <p>c) It does not result in a risk to the quality of groundwater, and there is no risk to public or private water supplies.</p> <p>d) All new homes (including replacement dwellings and conversions) achieve a water consumption standard of no more than 110 litres per person per day.</p> <p>e) All new non-residential developments of 500 sqm or more achieve the BREEAM 'excellent' credit required for water consumption.</p> <p>f) It does not impact on habitats and designated sites Criteria.</p> <p>g) d) – f) need to be satisfied unless it can be demonstrated that it is not financially viable to do so.</p> <p>h) If neither a mains nor package waste-water treatment plant is feasible to deliver the requirements of a new development, then a system incorporating septic tanks may be considered, provided there are no adverse environmental or public health effects from the installation.</p>	
SS7: Flood Avoidance and Coastal Erosion	<p>a) Development proposals to build below the 5 metre contour (5 metres above Ordnance Datum, Newlyn) or in other areas shown to be at risk of flooding or coastal erosion, will not be permitted unless an appropriate and proportionate Flood Risk Assessment (FRA) demonstrates how the flood risk will be managed, and that:</p> <p>I. The development, taking climate change into account does not create a flood risk over its lifetime to existing or proposed properties and/or surrounding land. II. Appropriate acceptable mitigation and recovery measures can be undertaken to ensure no significant adverse impact on human health or the natural and built environment as well as cultural heritage. III. If there is any doubt, the precautionary principle will apply.</p> <p>b) All major developments, regardless of location, should also be accompanied by a proportionate Flood Risk Assessment and appropriate sustainable drainage system.</p>	<p>Overall the site can be considered to have a medium flood risk. A Flood Risk Assessment and Drainage Strategy has been produced for the proposed scheme, covering flood risk and management measures. For more information see Section 4.8.</p> <p>Due to the location of the scheme being set back from the direct coastal edge, the works should not affect existing coastal erosion.</p>
SS8: Renewable Energy Developments	<p>a) Except for proposals for on-shore wind energy generation, development proposals for renewable energy that contribute towards creating sustainable island communities, including the implementation of projects that form the Smart Islands programme, and any other community programme or project that seeks to reduce greenhouse gas emissions and move towards a carbon neutral island environment, will be supported where they:</p> <p>I. Contribute towards meeting domestic, community or business energy needs within the islands.</p> <p>II. Conserve the scenic beauty, landscape, seascape, cultural heritage, or historic environment of the islands, including any cumulative and intervisibility impacts.</p> <p>III. Protect and enhance biodiversity and the maintenance of wildlife populations such as sea birds.</p>	<p>Whilst not all of this policy is relevant to the proposed scheme (which is not a renewable energy development), there has been considerations to reduce its greenhouse gas emissions (specifically carbon) in terms of its material usage, transport of materials and staff, waste production, and energy. Additionally, due to the nature of the proposed scheme (upgrades to existing wastewater infrastructure) there are limited opportunities to include renewable energies onsite.</p> <p>Various assessments have been undertaken to assess impacts on the environment and suggest appropriate mitigation, such as a Historic Environment Impact Assessment, Flood Risk Assessment and Drainage Strategy, carbon assessment (included within this document), various ecological reports, SWMP and CEMP, amongst others. All these help the proposed scheme adhere to the principles outlined in this policy.</p>

Legislation/ Policy Name	Summary	Demonstration of compliance
	<p>IV. They provide environmental enhancement and community benefits wherever possible.</p> <p>V. They would not have a significant adverse effect on the amenity of residents in terms of noise, dust, odour, reflected light, traffic or visual intrusion.</p> <p>VI. There would be no significant adverse effects on airport radar, air traffic control and telecommunications systems; and they contribute directly to energy conservation.</p> <p>b) Proposals should include details of associated developments, including ancillary buildings and transmissions lines, which should be located below ground where possible to reduce the visual impact. Where appropriate, planning permissions will be subject to conditions that require the implementation of a satisfactory restoration scheme following decommissioning of the equipment and apparatus.</p>	
SS9: Travel and Transport	<p>a) Development proposals that prejudice the effectiveness and efficiency of the operation of transport links and associated infrastructure will not be permitted.</p> <p>b) Support will be given to proposals that improve the islands' air and sea links and associated infrastructure.</p>	<p>Whilst there will be a small increase in the amount of traffic, this will be limited to the construction period and isn't expected to have a significant impact on current local traffic. However, a Construction Traffic Management Plan (CTMP) has been prepared to explain how traffic movements will be managed.</p>
SS10: Managing Movement	<p>a) Development that has the potential to generate vehicular movements and car parking will be permitted provided that:</p> <p>I. Provision is made to support and promote the use of sustainable transport such as walking, cycling and electric vehicles, where appropriate.</p> <p>II. It does not have an adverse impact on the function, safety and character of the local highway network.</p> <p>III. An appropriate level of off-street cycle and car parking and electric vehicle charging is provided, considering the scale and type of development and the accessibility of the location to facilities and services.</p> <p>b) Development that generates significant amounts of movement must be supported by a Transport Assessment and Travel Plan.</p>	<p>Whilst there will be a small increase in the amount of traffic, this will be limited to the construction period and isn't expected to have a significant impact on current local traffic. However, a CTMP has been prepared to explain how traffic movements will be managed.</p> <p>When staff are not working and need to travel, it is expected that more sustainable methods of transport will be used such as walking, cycling, and taking advantage of options to hire golf buggies, electric bikes etc.</p>
OE2 – Biodiversity and Geodiversity	<p>1. Development proposals will be permitted where they conserve and enhance biodiversity and geodiversity, giving particular regard to ecological networks and areas with high potential for priority habitat restoration or creation, and should:</p> <p>a) Protect the hierarchy of international, national and local designated sites in accordance with their status.</p> <p>b) Retain, protect, and enhance features of biodiversity and geological interest (including supporting habitat and commuting routes through the site and taking due account of any use by migratory species) and ensure appropriate and long-term management of those features.</p>	<p>As demonstrated within Section 4.13 of this document, an EclA has been undertaken for the proposed scheme to minimise negative impacts to ecology and habitats. Measures to avoid and reduce impacts on the natural environment have been included within the CEMP. This includes measures to prevent introduction or spread of invasive non-native species such as rats or Dutch elm disease.</p> <p>Additionally, a BNG assessment has been conducted, which concludes that the proposed scheme can achieve an excess of 10% BNG in area habitat units within the site through the reinstatement of modified</p>

Legislation/ Policy Name	Summary	Demonstration of compliance
	<p>c) Contribute to the restoration and enhancement of existing habitats and the creation of wildlife habitats and linkages between sites to create and enhance local ecological networks.</p> <p>d) Seek to eradicate or control any invasive non-native species present on site.</p> <p>e) Be required to contribute to the protection, management and enhancement of biodiversity and geodiversity.</p> <p>2. Development proposals must:</p> <p>a) Apply the mitigation hierarchy to all proposals.</p> <p>b) Demonstrate how they conserve or enhance biodiversity and ecosystem processes.</p> <p>c) Follow local guidance on biosecurity to control the spread of invasive non-native species.</p> <p>d) Ensure proportionate and appropriate biodiversity net-gain is secured.</p> <p>3. Development proposals will not be supported where significant and harmful direct or indirect effects on biodiversity and ecosystem processes are identified, unless:</p> <p>a) The need for the development clearly outweighs the harm caused.</p> <p>b) An appropriate scheme is proposed that will secure compensation and net-increases in biodiversity.</p> <p>4. Development proposals will not be permitted where a detrimental impact is identified to geodiversity sites unless the need for development outweighs the harm caused.</p>	<p>grassland at Parsons Green with either modified grassland (good condition) or other neutral grassland (moderate condition).</p>
OE3 – Managing Pollution	<p>a) A development proposal that has the potential to generate pollution, including of ground, water, noise, vibration, light or air, will only be permitted where it can be demonstrated that there would not be any adverse impact on human health, the natural environment or general amenity.</p> <p>b) Where development is proposed on land that is suspected to have historically generated any pollution, then a site environmental survey may be required before development is permitted. The Phase 1 report will identify any potential environmental risks that cannot be mitigated through an environmental management plan. The report will make recommendations as to whether a Phase 2 Intrusive Ground Investigation is required.</p>	<p>Section 4 of this report, alongside the CEMP, provides details of measures to manage potential pollution. A noise assessment has been completed which suggests that there will be no significant adverse impacts upon receptors during daytime or evening / night-time.</p> <p>Section 4.12 details the air quality considerations and mitigation methods such as a forced odour control system and dust control measures.</p> <p>A land contamination report was also produced which concludes that</p>
OE4 – Protecting Scilly's Dark Skies	<p>Development proposals that include external lighting will only be permitted where it can be demonstrated that the lights are essential for safety, security, or community reasons, and where details are provided of attempts to minimise light pollution, including:</p> <p>a) Costs to the environment (including the unnecessary use of electricity).</p> <p>b) Skyglow (visible glow caused by scattering and reflection from clouds and the atmosphere).</p>	<p>There will be no permanent lighting as part of the proposed scheme, therefore there will be no change from the existing situation. The site is located within an urbanised area, therefore the proposed scheme will not further impact the risk of lighting up the dark skies.</p> <p>During construction, task lighting may be required particularly during winter working (with the expectation that the lighting would be on from 16:00-18:00 during winter months). It is expected that this will be managed appropriately via the Principal Contractor's CEMP.</p>

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	<p>c) Light nuisance (creating amenity nuisance, highway hazards and restricted views of the night sky. Glare (over-bright and poorly directed lights that dazzle or discomfort those who need to see, by concealing rather than revealing).</p>	<p>A Land Contamination Report has also been conducted, which concludes that there are:</p> <ul style="list-style-type: none"> ➤ Moderate/low potential risks to future end users related to radon (associated with the granite bedrock); ➤ Low potential risks to construction workers associated with contaminants and asbestos in Made Ground; ➤ Very low potential risks to future end users associated with contaminants in Made Ground; and ➤ Very low potential contamination risk to controlled waters (surface water and groundwater) associated with potential Made Ground. <p>See Section 4.6 for more information.</p>
OE5 – Managing Waste	<p>a) All development proposals must demonstrate best practice in addressing waste management solutions, must align with the waste hierarchy, and a site waste management plan (SWMP) must be submitted to support planning applications.</p> <p>b) Construction and demolition waste should be minimised and must be managed and re-used on-island where there will be no harmful impacts. Where re-use on-island would result in an environmental risk to human health, biodiversity, the historic environment, the amenity of neighbouring properties or land uses, or the water environment, then appropriate off-island management or disposal will be required.</p> <p>c) Significant proposals, including for major development, must demonstrate how the construction and operational phases of the development will be consistent with the principle of sustainable waste management, through a waste management plan to include a waste audit, which should be submitted with the application. Waste facilities for re-use, recycling, composting and the generation of heat/energy, or the co-location of such uses, will be permitted where they improve the sustainable management of waste on the islands and accord with other relevant policies in the Local Plan</p>	<p>As discussed further within Section 4.10 of this document, a SWMP has been produced for the proposed scheme in line with the waste hierarchy, promoting the reuse and recycling of materials, ensuring diversion from landfill as far as possible.</p>
OE6 - Minerals	<p>Support will be given to the use of construction materials and minerals already on the islands, through the use of recycled and secondary materials to minimise the requirement for any direct extraction. Site Waste Management Plans (SWMPs) will be required to support development proposals and will include measures to recycle and recover inert construction, demolition and excavation materials for reuse in building works, thereby also reducing transportation costs and carbon emissions</p>	<p>The SWMP for the proposed scheme discusses how opportunities to reuse materials on site have been taken (such as segregation of excavated soil arisings at the point of excavation is recommended to maximise the potential for arisings to be reused / recycled). Whilst materials will need to be shipped in from the mainland, it is recommended that the closest suitable supplier will be chosen to reduce emissions associated with material transport. Where a supplier can provide multiple materials required to construct the scheme, they will be used.</p>

Legislation/ Policy Name	Summary	Demonstration of compliance
Isles of Scilly Climate Change Action Plan 2022	In response to the Council of the Isles of Scilly in 2019 declaring a Climate Emergency and the goal to achieve zero carbon by 2030, the Action Plan looks at what has been done and what is still needed to reduce emissions.	Carbon emissions produced by the proposed scheme have been considered and recommendations made to reduce emissions during the construction period, demonstrating contribution towards the plan.
Smart Islands: The Declaration – 10 action points towards becoming SMART, inclusive and thriving societies	<ul style="list-style-type: none"> a) Take action to mitigate and adapt to climate change and build resilience at local level. b) Trigger the uptake of smart technologies to ensure the optimal management and use of our resources and infrastructures. c) Move away from fossil fuels by tapping our significant renewables and energy efficiency potential. d) Introduce sustainable island mobility including electric mobility. e) Reduce water scarcity by applying non-conventional and smart water resources management. f) Become zero-waste territories by moving to a circular economy. g) Preserve our distinctive natural and cultural capital. h) Diversify our economies by exploiting the intrinsic characteristics of our islands to create new and innovative jobs locally. i) Strengthen social inclusion, education and citizens' empowerment. j) Encourage the shift towards alternative, yearlong, sustainable and responsible tourism. 	<p>The proposed scheme will directly be supporting some of the points within the Smart Islands Declaration, such as the following:</p> <ul style="list-style-type: none"> ➤ Implementation of a Site Waste Management Plan which aims to reduce waste as far as possible and divert as much from landfill as possible. This includes encouraging the reuse of material, such as the reuse of excavated topsoil; and ➤ Engagement with the local community to identify locally available materials that can be incorporated into the project, which will support the local economy, amongst other things. <p>The proposed scheme will benefit the community as the wastewater infrastructure is a vital element of the sanitation arrangements on the island, with the improved screening process providing clean water for residents. This will improve resilience by increasing clean water availability now and in the future.</p>
Local Legislation		
Isles of Scilly (Application of Water Legislation) Order 2020: Explanatory note	<ul style="list-style-type: none"> a) The main purpose of this Order is to apply certain provisions of the Environment Act 1995 and Water Resources Act 1991 to the Isles of Scilly with modifications to provide for the specific circumstances on the Isles. This Order also applies certain secondary legislation to the Isles of Scilly. b) The application of this legislation to the Isles of Scilly will enable environmental regulation of water and sewerage services and water and waste activities, and for the water and sewerage undertaker to provide both household and non-household services on the Isles. 	<p>The proposed scheme provides a wastewater facility which directly addresses this piece of legislation.</p> <p>Additionally, it forms part of the Capital Delivery Programme, which will deliver improvements to the existing water and wastewater systems across the five inhabited islands.</p>
The Environmental Protection Act 1990 (Isles of Scilly) Order 2006: Explanatory Note	The main purpose of this Order is to apply certain provisions of the Environment Act 1995 and Water Resources Act 1991 to the Isles of Scilly with modifications to provide for the specific circumstances on the Isles. This Order also applies certain secondary legislation to the Isles of Scilly. The application of this legislation to the Isles of Scilly will enable environmental regulation of water and sewerage services and water and waste activities, and for the water and sewerage undertaker to provide both household and non-household services on the Isles.	<p>The proposed scheme provides a wastewater facility which directly addresses this piece of legislation.</p> <p>Additionally, it forms part of the Capital Delivery Programme, which will deliver improvements to the existing water and wastewater systems across the five inhabited islands</p>

Appendix B Carbon Assessment Assumptions and Exclusions

Assumptions:

The table below includes the assumptions used when the design parameter data was inputted into the carbon tool.

Original Design Element or Emissions Data	Original Material or Emissions Data	Assumption	Justification
Internal	Plasterboard	0.00039 carbon factor from: Embodied Energy of drywall - GreenBuildingAdvisor	A widely used carbon factor across industry.
Internal	Glass	Embodied Carbon in Glass Vitro Architectural Glass (vitroglazings.com)	A widely used carbon factor across industry.
Internal	Glass Wool	Embodied Carbon in Glass Vitro Architectural Glass (vitroglazings.com)	A widely used carbon factor across industry.
Roofing	Slate	Natural slate taken from the SSQ Group carbon emissions factors: https://www.ssqgroup.com/3-reasons-why-slate-roofs-are-a-great-choice-for-sustainable-projects#:~:text=Compared%20to%20concrete%20tiles%20%E2%80%93%200.19,expectancy%20of%20over%20100%20years . Added into the tool as a custom	A widely used carbon factor across industry.
Site Wide	Brick Plinth	Standard Bricks Including Mortar.	Divided the Plinth structure length by the measurement of a brick plinth = 0.45cm per brick.
Site Wide	Breeze Block	Ready mix concrete – General	Breeze block will be concrete.
Internal	Flue	Steel Pipework 300mm	A flue is pipework used for gaseous waste; therefore, drainage pipe is a suitable substitute for emissions. 300mm was used as it was the closest diameter.
Operational	Energy Consumption	Emissions factor of 0.20707 kgCO ₂ e from based on UK Government factor. The result was then divided by 1000 to get the tCO ₂ e figure.	A widely used carbon factor across industry, this assumption then had to be calculated for a per day value that was then extrapolated for a 365-day annual year.
Transport	HGV	Each HGV can take 10 tonnes per load and takes a 5km journey per load with a emissions factor of 0.0872.	19 HGVs to transport the 178.9 tonnes of goods (adding an additional HGV load for equipment at an assumption of below 10 tonnes of equipment).
Transport	Ferry	Assumption of 65km per journey from Penzance to St. Mary's with an emissions factor of 0.000019.	Calculate your travel carbon footprint - Direct Ferries total x3 with the assumption of the materials using 3 ferry journeys.

Exclusions:

The table overleaf includes the exclusions used when the design parameter data was inputted into the carbon tool. It is noted that this refers to exclusions within the scoped development, and not those elements of the design which were scoped out.

Option	Original Design Element	Original Material	Reason for Exclusion
All Options	Roofing Liner	Polypropylene sheet (PP)	No measurements within the design parameters developed yet.

Appendix C PAS 2080 Carbon Lifecycle Stages

