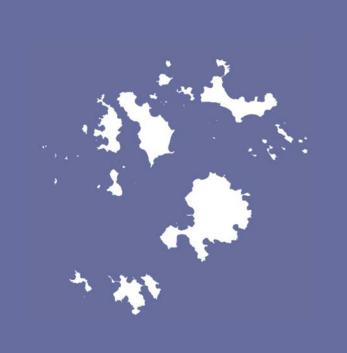
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lsles of Scilly



# Capital Delivery Programme

Land contamination risk management: Preliminary risk assessment (PRA)

Bishop and Wolf Pumping Station and Screening Plant

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### Capital Delivery Programme

### Land contamination risk management: Preliminary risk assessment (PRA)

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		Executive Summary		
Site Name	St Mary's Bishop and Wolf Pumping Station and Screening Plant			
Location	Hugh Town, St Mary's, Isles of Scilly. TR21 0JJ – scheme centre: 90249, 10502			
Proposed scheme	building and the the existing Bish	The proposed permanent works scheme consists of the demolition of the existing pumping station building and 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.		
Site history	The earliest mapping from 1890 shows the site comprised undeveloped land in a residential setting. A structure (likely existing pumping station) is shown on the 1980 map. The surrounding area developed into a mix of residential and commercial properties throughout the 20th century with minimal changes over the years.			
Geology and	Geology		Hydrogeology	
hydrogeology	Superficial	Head Deposits	Secondary undifferentiated	
	Bedrock	Isles of Scilly Intrusion	Secondary A	
Radon		the site is in an intermediate radon probability ss than 1% of the site (east) is in a higher rad		
Hydrology		waters are not identified within the site. re present 130m north and 150m south.		
Assessment (PRA) summary	<ul> <li>Moderate/low potential risks to future end users related to radon (associated with the granit bedrock).</li> <li>Low potential risks to future end users and construction associated with contaminants and asbestos in Made Ground.</li> <li>Very low potential risk to future end users associated with potential asbestos in soils and contaminants in Made Ground.</li> <li>Very low potential contamination risk to controlled waters (surface water and groundwater)</li> </ul>		remediation/mitigation: to radon (associated with the granite associated with contaminants and th potential asbestos in soils and	
Land contamination risk management (LCRM) recommendations and next steps	associated with potential Made Ground.  It is recommended that site investigation and further assessment is required with regards to potential radon risks, based on the findings of the land contamination preliminary risk assessment.  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.  Construction of the redeveloped pumping station is likely to require excavation of existing natural soils that may be destined for onsite re-use or off-site disposal. In order to comply with current waste legislation or to demonstrate that materials which are designed to be retained on site are suitable for use, specific geochemical soil analysis should be undertaken as part of the site investigation.  Based on the available evidence and the continued use as a sewage pumping station, the potential risks from geochemical contamination in soils, as determined by the preliminary risk assessment, are considered to be low therefore specific site investigation and assessment relating to these risks is not required. This is with the exception of potential unknown contaminant sources that should be notified and addressed if identified.			

### 1 Introduction

#### 1.1 Commission

Pell Frischmann has been commissioned by Trant Engineering Ltd (the *client*) to prepare this land contamination Preliminary Risk Assessment (PRA) for the proposed permanent works scheme at St Mary's Bishop and Wolf Pumping Station and Screening Plant site as part of Isles of Scilly Capital Delivery Programme. The site is situated in the centre of Hugh Town, on the island of St Mary's, within the Isles of Scilly archipelago. The site location and permanent works area are shown in Figure 1-1. The scheme will replace the existing Bishop and Wolf pumping station that is located on the same site.

The proposed permanent works scheme comprises the demolition of the existing pumping station building and construction of a larger single storey building and a screening plant, and replacement of the existing sewage pump infrastructure, as detailed in Section 1.2. The permanent works area boundary is noted to extend beyond the current pumping station site, into the rear area of the Bishop and Wolf public house site to the east. It is understood that this area of land is to be purchased to facilitate the new pumping station. It is noted that the planning application boundary covers a larger area, as described in Section 1.2.1, however this report focuses on the permanent works area (the *site*).

The overall aim of this preliminary risk assessment is to identify potential land contamination risks and geoenvironmental constraints which could impact upon or restrict the proposed permanent works scheme for the site. This report is also required to support a planning application for the proposed scheme.

Site location Permanent works scheme Hugh Town A3111 Porth Cressa Ordnance Survey (OS) Open Mapping Mastermap\* extract Item Site details Site area 98 m<sup>2</sup> 90249.57, 10502.46 National grid reference (NGR) **TR21 0JJ** Nearest postcode Local authority Isles of Scilly

Figure 1-1 Site location

# 1.2 Proposed scheme

One of the aims of the Isles of Scilly Capital Delivery Programme scheme is to improve the wastewater assets on the islands as part of an Environment Agency "Local Enforcement Position" and includes upgrading the existing Bishop and Wolf pumping station. The proposed permanent works scheme consists of the construction of an enlarged wastewater infrastructure building, which will replace the existing Bishop and Wolf Sewage Pumping Station (SPS) building. The new building will house new variable-speed pumps and a new

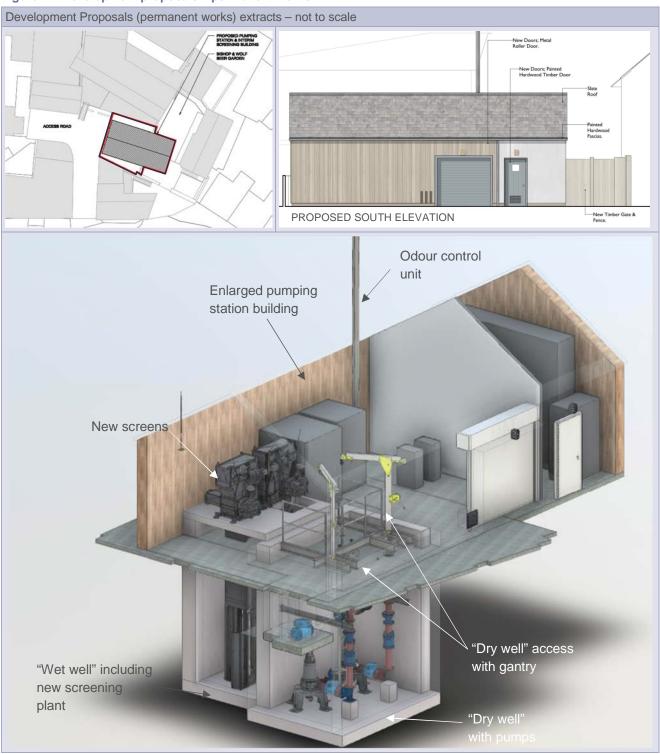
<sup>\*</sup>Reproduced from the Ordnance Survey Map by South West Water by permission of Ordnance Survey on behalf of His Majesty's Stationery Office (c) Crown Copyright South West Water Ltd, Licence Number 0000861633.

screening plant. The screening plant will remove objects such as rags, paper, plastics, and metals to prevent damage/clogging of downstream infrastructure as well as ensuring they do not enter the marine environment.

As the proposed new pumps will be more resilient, it is understood that there is no intention for further excavation of the existing below-ground chambers. The surface cover surrounding the new pumping station structure is proposed to be hardstanding only (as per the current site). Outline foundation designs show that a raft foundation will be installed to 350mm below ground level beneath the proposed structure.

Figure 1-2 shows extracts from outline design drawings for the permanent works. Full plans are shown in Appendix A.

Figure 1-2 Development proposals – permanent works



#### 1.2.1 Planning application redline boundary

The redline boundary for the planning application is indicated in Figure 1-3 below. This boundary includes the permanent works area as well as additional temporary works and access areas required for the construction phase. These include a construction storage compound location and a section of road.

Parson's Green

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Figure 1-3 Planning application redline boundary

It is understood that's Parson's Green will be used as a construction storage compound and lay-down area. Parsons 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 Parsons Green and a compacted stone base will be installed. It is expected that the compacted stone aggregate will be separated from the underlying subsoil 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.

The road section comprises an approximate 162m of road extending from 14 Silver Street, along Little Porth up to 10 Parsons Field. The road section incorporates all land necessary to carry out the proposed development including the land required for access to the site from the public highway, visibility splays, car parking associated with construction site workers and those local areas it is expected will require temporary parking suspensions put in place during the construction sites operational hours.

This report will focus on the permanent works scheme area only.

## 1.3 Scope of work

#### 1.3.1 Land contamination risk management

The Environment Agency (EA) Land Contamination Risk Management guidance (LCRM), sets out the process that should be followed for managing the risk from land contamination. This includes ensuring that the site will be 'suitable for its proposed use' in line with National Planning Policy (NPPF) as part of a planning application. The process of LCRM should be used to:

- Identify and assess if there is an unacceptable risk
- Assess what remediation options are suitable to manage the risk
- Plan and carry out remediation
- Verify that remediation has worked

LCRM includes three risk-based stages (1) risk assessment, (2) options appraisal, (3) remediation and verification. The process commences with a preliminary risk assessment (PRA), which defines the scope and extent of effort required for the subsequent LCRM stages. Table 1-1 presents Pell Frischmann's simplified summary of the LCRM process.

Table 1-1 Land contamination risk management stages - simplified

1 Risk Assessment			2 Options appraisal	fication	
Preliminary risk assessment	Site investigation scheme	Quantitative risk assessment	Remediation options appraisal	Remediation strategy & verification plan	Remediation Verification
PRA	Quantitative	risk assessment	LCROA	LCRS	LCRV
Desk study to identify sources of contamination and sensitive receptors. PRA to identify potential S-P-R contamination linkages (CLs)	SIS: Investigate potential sources and receptors	GQRA/DQRA: Quantitative risk assessment to assess risks for each CL to identify and assess unacceptable risks	Identify remediation option to address unacceptable risks	Strategy: steps and measures required to implement remediation onsite.  Verification plan: activities and records that must be kept during remediation	Record of all remediation activities as evidence that remediation has been successful

#### 1.3.2 Preliminary risk assessment (including land contamination desk study)

Pell Frischmann have been commissioned to prepare this Preliminary Risk Assessment for the proposed permanent works scheme, including a land contamination desk study, a walkover survey and the development of a preliminary conceptual site model (CSM).

The desk study and walkover survey will be undertaken to:

- identify potential contaminants or 'sources' of contamination in, on or under the land (this process includes identifying potentially contaminative past and present land-uses onsite and in the surrounding area),
- > identify 'receptors' that could be adversely affected by a contaminant, and
- identify exposure 'pathways' a route by which a receptor is or could be adversely affected by a contaminant.

The preliminary conceptual site model (CSM) will summarise the potential 'source-pathway-receptor' contaminant linkages (CLs) that have been identified for the proposed permanent works scheme. Each potential contaminant linkage (pCL) will be assigned a qualitative level of risk before considering what further action (if any) is needed.

Land contamination risk management is an iterative process and the preliminary CSM should be used as the basis upon which future quantitative risk assessment is undertaken - including designing intrusive site investigation activities, if required.

#### 1.4 The site

The permanent works site is positioned immediately to the southwest of the Bishop and Wolf public house in the centre of Hugh Town on the island of St Mary's, as shown in Figure 1-1.

The site is currently occupied by a single storey white-rendered building (in the southwest corner) which houses underground water pump infrastructure, with hardstanding surrounds. A concrete plinth is located adjacent to the north side of the building, with an access hatch to the 'wet well' structure. The eastern area of the permanent works site extends into the grounds of the Bishop and Wolf public house beer garden which comprises hardstanding with the public house building present 1m offsite to the east.

Access to the site is from the southwest (via "The Wrasse") and the southeast (via "Porthcressa View"). Residential and commercial properties form tight boundaries to the north and the south. Figure 1-4 shows recent (2024) aerial photography for the site and a 3D image of the existing infrastructure.

Ordnance Survey (OS) mapping and Environment Agency LiDAR data indicates that the site is relatively flat with an elevation of between +3.7m above Ordnance Datum (mAOD) and +4.0 mAOD.

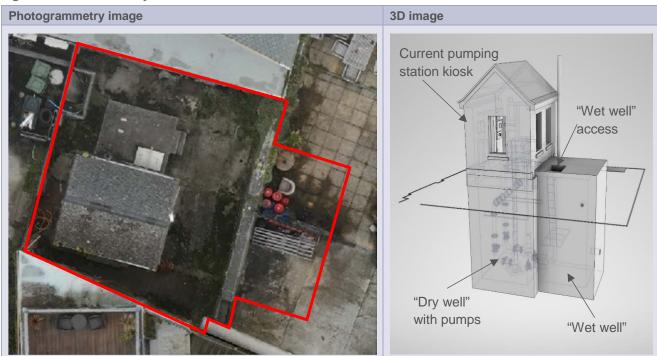


Figure 1-4 Current site layout

# 1.5 Walkover survey

An "operational and conditional inspection" at the site was conducted by the engineering surveying firm Aqua Nero Water and Energy Ltd on 28 November 2023. The purpose of the survey was to describe and inspect the existing condition of the pumping station infrastructure. Selected images from the survey are included in Figure 1-5 which show the site layout and current site conditions.

### Figure 1-5 Walkover survey photographs

# Walkover photographs



Site view from "The Wrasse" showing site access - view to E



Access to pumping station from Bishop and Wolf public house beer garden – view to W



Entrance to pumping station - view looking E along S boundary.



NE and E boundary walls in background, wet well cover and pumping station building in foreground



View of groundcover, northern extent of site



Concrete plinth over wet well with access hatch

# Walkover photographs





Dry well configuration with access ladder

# 2 Land contamination desk study

#### 2.1 Data sources

The following 'desk-based' geoenvironmental data sources have been selectively reviewed to assess the geoenvironmental setting of the site and its surroundings and to identify potential contamination sources, pathways and receptors.

- > Historical and current Ordnance Survey maps and aerial photographs (Envirocheck and Google imagery),
- > British Geological Survey (BGS) maps and records,
- Environment Agency (EA) data,
- > Site specific geoenvironmental database search results (Envirocheck), and
- Relevant internet-based data sources.

Relevant information is presented and discussed in the following sections.

## 2.2 Site specific data

As part of the data search, an Envirocheck (Site Sensitivity) Report, Geology Report and a set of historical maps have been procured from Landmark Information Group (Landmark); included in Appendix B (historical maps) and Appendix C (datasheets and maps). Table 2-1 summarises key information topics included within the Envirocheck Report and Geology Datasheet.

Envirocheck Analysis (online tool) has also been used to review, combine, and extract relevant information from the Landmark products, including several of the map extracts presented in this report. When referencing Landmark information, the distances to identified features are measured from the nearest point on the subject site boundary, unless stated otherwise.

**Table 2-1 Landmark topics** 

En	Envirocheck Report		Geology Report	
A A	Environment Agency records Hydrology and hydrogeology		Artificial ground and landslip map Superficial geology map	
>	Waste	> E	Bedrock and faults map	
>	Hazardous substances	> (	Combined geology map	
>	Industrial land uses			
>	Sensitive land uses			

# 2.3 Site history

The following historical records have been reviewed to provide an overview of the site's history and to help identify potentially contaminative historical land uses both onsite and in the immediately surrounding area:

- > Historical County Series and Ordnance Survey (OS) map editions (Appendix A), and
- Historical and recent aerial photographs (source: Google & Landmark).

A historical map from the late 1900s and a current aerial photograph are presented in Figure 2-1 for comparison. historical

Figure 2-1 Site history



Onsite: The earliest available mapping from 1890 shows that the site was undeveloped land crossed by footpaths. By 1908, these paths were no longer visible and were likely incorporated into the area occupied by an irregularly shaped building encroaching on the northwest corner. The available mapping from 1909 and 1963 is unclear, but no new developments are shown. By 1980 a structure, likely the existing pumping station, appears onsite with an additional building shown on the southern boundary. The site and immediate surrounding area appear in their current layout from this time.

Offsite: The earliest mapping shows the surrounding area likely comprised residential and commercial buildings, with the closest being an irregularly shaped structure forming the northwest corner of the site and extending 5-10 meters to the north and northeast. By 1980, the irregular building's outline was no longer shown to the northeast, replaced by an unnamed building less than 1m north and a public house 10m northeast. 'Wells' are shown 80m northwest (Well A) and 90m west (Well B) of the site, anecdotal evidence suggests the wells are likely older, but are not clearly described on mapping before 1980 (further discussion regarding these wells is presented in section 2.4.2). Minimal change is shown offsite on the subsequent mapping up to the present day.

# 2.4 Geology

#### 2.4.1 Published geology

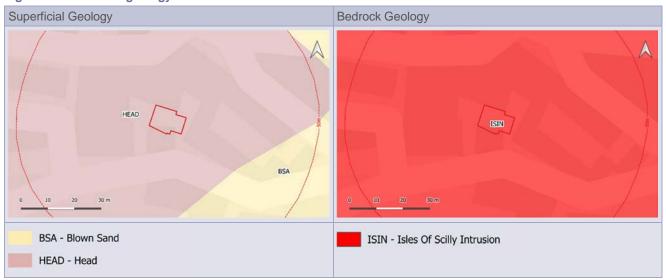
The published geology of the area is shown on the geological map for the Isles of Scilly (Sheet 357 and 360, scale 1:50,000), published by the British Geological Survey (BGS), the digital version of which is shown Figure 2-2. Derivatives of the BGS mapping are included in the Geology Report (Landmark) and further geological information has been obtained from the BGS website.

The geological mapping indicates that the site is underlain by the following sequence of superficial deposits and bedrock strata (the descriptions for each stratum are taken from the BGS):

- Head Deposits (superficial): Poorly sorted and poorly stratified, angular rock debris and/or clayey hillwash and soil creep. Comprises gravel, sand and clay with local lenses of silt, clay or peat and organic material.
- ➤ Isles of Scilly Intrusion (bedrock): The intrusion is comprised of two common types of granite; one coarse-grained with porphyritic crystals of feldspar which is dominant across the islands (Outer Granite); the other finer grained and non-porphyritic, and has a more restricted outcrop in the north and west of St. Mary's and the south part of Tresco and Bryher (Inner granite). Typically the transition between the two types of granite is gradational; only locally is the contact sharp (e.g. north-east of Hugh Town [SV 9095 1155].

There are no BGS mapped records of artificial ground or linear geological features onsite.

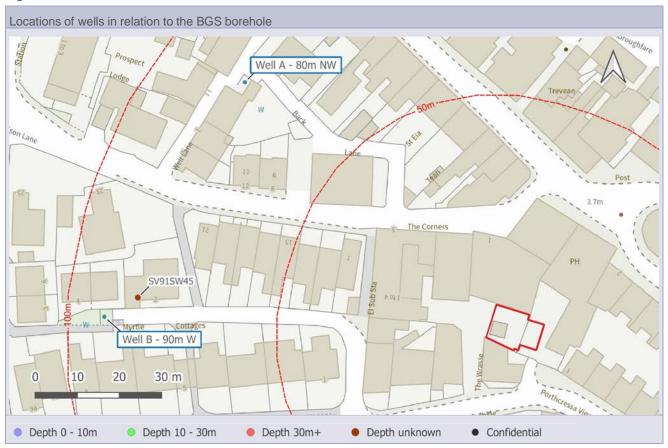
Figure 2-2 Published geology



#### 2.4.2 Borehole records

The BGS maintains an archive of historical boreholes which shows that although there are no records of boreholes within the site boundary, a borehole (SV91SW45) is present 84m to the west of the site. Although no depth or geological information is included within the associated borehole record, the borehole is noted to be called 'Clemmie's Well' and the record details the analysis results from a water sample taken in 1925. It is possible that 'Clemmies Well' and Well B, as identified in section 2.3 are the same feature based on their proximity in the mapping, see Figure 2-3.

Figure 2-3 Historical wells and BGS boreholes records



#### 2.4.3 Ground stability and mining

The Landmark Envirocheck and Geology Reports indicates that there are **no** moderate or high natural ground stability hazard onsite, as summarised in Table 2-2.

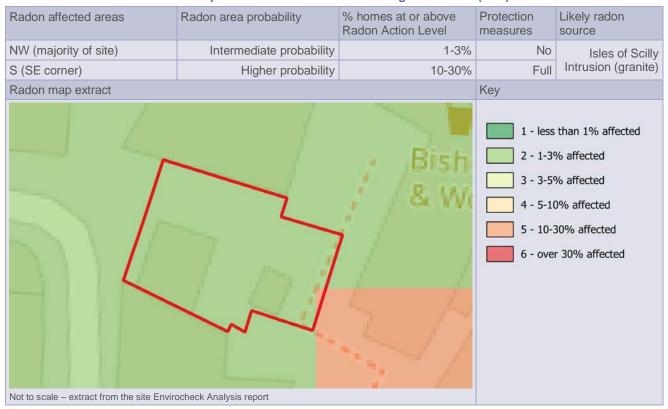
**Table 2-2 Ground stability hazards** 

Natural ground stability hazard	No hazard	Very low	Low	Moderate	High
Collapsible deposits		✓			
Compressible deposits	✓				
Ground dissolution	✓				
Landslide		✓			
Running sand		✓			
Shrinking or swelling clay		✓			
Mining and cavities					
Natural cavity records	None				
Man-made cavity records	None				
Non-coal mining areas	None				
BGS mineral sites	No open sites w	vithin 1km			

#### 2.4.4 Radon

Table 2-3 summarises the radon probabilities onsite based on the Envirocheck Report. The UK radon maps UK Health Security Agency (UKHSA) interactive 'UK maps of radon' (<a href="www.ukradon.org">www.ukradon.org</a>) provide indicative information based on 1km grid squares with each square being classed according to the highest radon potential found within the square. The site specific Envirocheck information references higher-resolution British Geological Survey data based on 25m squares.

Table 2-3 Radon affected areas and protection measures based on high resolution (25m) data



The radon protection measures included above are based on the Building Research Establishment (BRE) report 'Radon, Guidance of protective measures for new buildings' (BR211, 2015). Building Regulations and guidance from Public Health England, BRE and Health and Safety Executive (HSE) are the primary influences on radon assessment and mitigation in the UK.

The available mapping indicates that only 0.6% of the site is potentially underlain by an area of higher radon probability where full radon measures would be required for new buildings. It is likely that this higher probability area relates to the mapped Blown Sand Deposits overlying the granite bedrock to the east of the site. As the superficial geology below the site is indicated to be Head Deposits, which are likely to comprise more cohesive material, and as the majority of the site has been given an intermediate radon probability, where radon protection measures would not be required, it is recommended that further assessment is undertaken to confirm the exact requirements for the proposed permanent works scheme.

# 2.5 Hydrology and hydrogeology

#### 2.5.1 Hydrology

The nearest surface water features and active licenced surface water abstractions and discharges are summarised in Table 2-4.

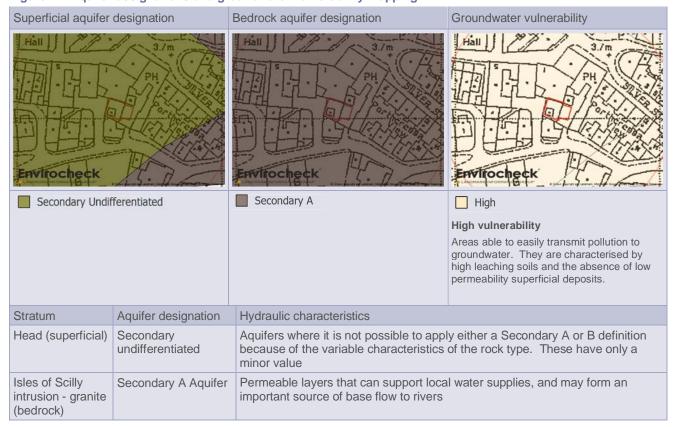
Table 2-4 Surface water features, abstractions and discharges

Hydrology information	Records
Nearest surface waters	The Atlantic Ocean is 130m to the north and 150m to the south of the site.
Licenced surface water abstractions	There are no active surface water abstractions recorded within 1km.
Surface water discharge consents	There are 2 active discharge consents to surface waters recorded within 500m.  148m (N): Public sewage: public storm overflow to the sea  432m (N): Sewage discharges: treated effluent to the sea

#### 2.5.2 Hydrogeology

The Environment Agency aquifer designations for the underlying superficial deposits and bedrock, and the associated groundwater vulnerability classifications for these strata are summarised in Figure 2-4.

Figure 2-4 Aquifer designations and groundwater vulnerability mapping



#### 2.5.3 Groundwater abstractions and SPZs

Table 2-5 summarises the available records relating to groundwater abstraction and use within the local site area including active licenced groundwater abstractions and discharges (based on Environment Agency data from the Envirocheck Report).

Table 2-5 Groundwater source protection zones and abstractions

Hydrogeology information	Records
Source Protection Zone (SPZ)	The site is not within a Total Catchment SPZ. A Zone II Outer Protection SPZ is recorded 776m NE and a Zone I Inner Protection SPZ is recorded 975m NE from the site.
Groundwater abstractions	No active groundwater abstraction records within 1km. However, current OS mapping show wells 80m NW (Well A) and 90m W (Well B).
Groundwater discharge consents	A single groundwater discharge consent entry is recorded 907m NE which is described as a domestic treated effluent discharge to groundwater via a soakaway

#### 2.5.4 Flooding information

Extracts of the surface water flood risk and flood zone maps, and the BGS groundwater flooding susceptibility map are included in Figure 2-5. Further consideration of flood risk is beyond the scope of this report.

Figure 2-5 Flood risk mapping (Envirocheck)



# 2.6 Additional geoenvironmental records

The Envirocheck Report indicates that the site is not on the Contaminated Land Register (i.e. the site is not within land determined as 'contaminated land' under Part 2A of the Environmental Protection Act 1990) and there are no Contaminated Land Register Entries within 1km of the site.

There are no pollution incidents to controlled waters or other notable geoenvironmental records from the Envirocheck Report on site or within 500m, that require further consideration.

Reference to the historical map review and the British Geological Survey artificial ground mapping review above as well as the 'waste records' within the Envirocheck report indicate that there are no infilled ground records, landfills (historical or operational) or waste transfer/treatment or disposal sites present on site or within 250m of the site.

# 2.7 Unexploded ordnance (UXO)

Parts of the United Kingdom were heavily bombed during World War 2 (WW2); a significant number of bombs did not detonate on impact and some of these bombs may still be in the ground. The site history does not identify any military land-uses or industrial sites that may have been targeted within the site boundary, however

the Zetica unexploded bomb risk map shows that St Mary's airport (1.5km east-southeast) was targeted with aerial bombardment. A site-specific pre-desk study assessment (PDSA) ordered from Zetica states "No official bombing statistics have been found for the Isles of Scilly, but the bombing density is believed to be low. No readily available records have been found to indicate that the Site was bombed. A detailed desk study, whilst always prudent, is not considered essential in this instance."

# 2.8 Potential ecological system receptors

Table 2-6 summarises whether the site is within a location or proximity to a location where potential ecological system receptors may be present with respect to contamination in line with "The Environmental Protection Act 1990: Part 2A, Contamination Land Statutory Guidance (Department for Environment Food and Rural Affairs, Defra, 2012)" and "An ecological risk assessment framework for contaminants in soil, Science Report SC070009/SR1 (Environment Agency, 2008)".

Table 2-6 Ecological system receptors

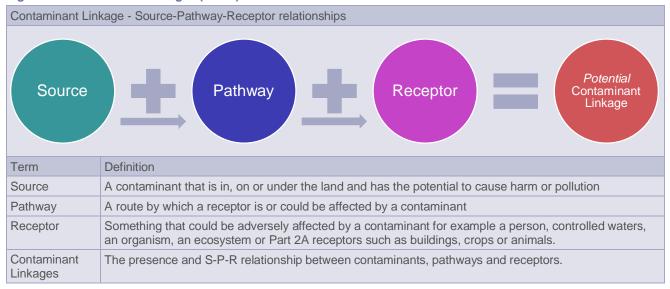
Receptor	Onsite	Offsite within 1km
Marine nature reserves or European marine site	No	Isles Of Scilly Sites - Peninnis To Dry Ledge 993m SW
Nature reserve (local or national)	No	None recorded within 1km
Ramsar site	No	None recorded within 1km
Site of Special Scientific Interest (SSSI)	No	Peninnis Head (St Marys) 647m SE Lower Moors 726m E
Special Area of Conservation (SACs)	No	Isles of Scilly Complex 111m S and 145m N
Candidate Special Areas of Conservation (cSACs)	No	None recorded within 1km
Special Protection Areas (SPAs)	No	Isles of Scilly 82m S and 91m
Potential Special Protection Areas (pSPAs)	No	None recorded within 1km
Geoenvironmental constraint rather than land contar	mination receptor	
Areas of outstanding natural beauty	(Yes) Isles of Scilly	Isles of Scilly AONB covering all islands
World Heritage Sites	No	None recorded within 1km

# 3 Preliminary risk assessment (PRA)

#### 3.1 Introduction

The land contamination desk study, summarised in Chapter 2, has been undertaken to begin to identify potential land contamination risks and geoenvironmental constraints which could significantly impact or restrict the proposed permanent works scheme and to inform the preliminary risk assessment process. The preliminary risk assessment (PRA) includes the development of an 'outline' or preliminary conceptual site model (CSM) for the proposed permanent works scheme which shows the possible relationships between contaminants, pathways and receptors based on the source-pathway-receptor (S-P-R) approach, as summarised in Figure 3-1.

Figure 3-1 Contaminant Linkages (S-P-R)



All three elements (S-P-R) of a contaminant linkage must be present for a land contamination risk to exist, i.e. even if a contaminant has been identified but there is no receptor or no pathway then the S-P-R linkage is incomplete and there is not a risk - "A contaminant linkage must be present for there to be a S-P-R relationship. Without a linkage, there is not a risk - even if a contaminant is present" (LCRM, 2020).

#### 3.2 Potential sources

Table 3-1summarises the potentially contaminative land-uses or potential contaminant sources that have been identified onsite and in proximity to the site that have been considered for inclusion in the conceptual site model.

**Table 3-1 Potential sources** 

Onsite		Offsite	
>	Potential Made Ground associated with the construction of the current pumping station on site	No significant potentially contaminative land-uses have been identified in proximity to the site.	
>	Potential asbestos in soils associated with the construction of the current pumping station		

## 3.3 Potential receptors

Table 3-2 summarises the potential receptors that have been identified with respect to the site and the proposed development, in line with the contaminated land statutory guidance (Part 2A, 2012). Where the future end-uses are known and when changes to the end-uses are likely to result from the proposed development of the site, it is important that these future receptors are also considered within the Conceptual Site Model.

**Table 3-2 Potential receptors** 

Receptor	Details
Human health - end users	Yes
Human health - during site preparation and construction	Yes
Controlled waters	
Surface water	Yes – marine waters to the north and south
Groundwater	Yes – bedrock strata classified as a Secondary A Aquifer
Other	
Buildings and structure (radon)	Potentially – a very small area of higher radon probability indicated at the east of the site
Ecological systems	With respect to contamination, the existing designated site are unlikely to be impacted by the scheme.

# 3.4 Conceptual site model and preliminary risk ratings

The *preliminary* Conceptual Site Model for the proposed permanent works scheme (in tabular format) summarising the *potential* contaminant linkages is presented in Table 3-3 overleaf. During the risk assessment stage, the term '*potential*' contaminant linkage is used which reflects that these CLs are not confirmed.

Potential risk ratings have been assigned for each *potential* contaminant linkage as part of the preliminary risk assessment process and have been added to the CSM table. Each risk rating considers the 'severity of the consequence' and the 'probability of the likelihood' as shown in the risk matrix overleaf. These ratings are based on the available data presented in this report, and qualitative judgement only. It should be noted that the assigned risk ratings do not take into account any mitigation measures as the preliminary risk assessment is based on potential contaminant linkages only.

The CSM is an iterative process that needs to be updated as a project progresses through Land Contamination Risk Management, this may result in potential CLs being discounted/closed in the future and for others the risk ratings may need to be refined. As stated in the LCRM guidance, the CSM should be used to "inform the basis of your initial assessment and all future decisions as you progress through Land Contamination Risk Management" (LCRM, 2020). The preliminary CSM has also been used to summarise uncertainties and gaps in information and includes recommendations for further investigation and assessment to address them, which may include intrusive site investigation and monitoring followed by quantitative risk assessment.

Table 3-3 Preliminary conceptual site model and preliminary risk ratings

pCL	Source/s	Pathway/s	Receptor/s	Probability	Consequence	Risk rating	Comments	
101	Contaminants within potential Made Ground onsite	Ingestion, inhalation and dermal contact	Human health of end users	Unlikely	Mild	Very low	Made Ground is anticipated at the site due to the pumping station construction between 1963 and 1980, though the volume and composition are unknown. The proposed development involves minimal below ground excavation and the proposed permanent works scheme comprises only the building and surrounding hardstanding, which reduces potential exposure. Given the absence of viable pathways for human health impacts, the risk of land contamination affecting end users is considered low.	
A01		Ingestion, inhalation and dermal contact	Health and safety (H&S) of site preparation and construction workers	Low likelihood	Mild	Low	Recommend: Site investigation for informing Land Contamination Risk Assessment for the continued use of the site as a pumping station is not currently considered to be required. While specific risk assessment for soils in their existing condition is not considered necessary, construction of the redeveloped pumping station is likely to require excavation of Made Ground and existing natural soils that may be destined for off-site disposal or onsite re-use. In order to comply with current waste legislation or to demonstrate that materials which are designed to be retained on site are suitable for use, intrusive ground investigation and geochemical soil analysis should be undertaken.  It is anticipated that H&S risks for site preparation and construction workers can be readily mitigated by the selection of suitable PPE and	
							adoption of appropriate working practices; these should be detailed by the contractor within their RAMS.	
201	Asbestos within the Made Ground onsite (including Asbestos in Soils (AiS) and visually	Inhalation of liberated respirable fibres	Human health of end users	Unlikely	Mild	Very low	Given the pumping station structure is likely to have been constructed between 1963 and 1980, the use and presence of asbestos within construction materials cannot be discounted. However, given the proposed hardstanding cover and the one storey building that is to be constructed at the site along with no proposed soft landscaping, asbestos exposure pathways are unlikely to be present and therefore asbestos inhalation risks to end users are likely to be very low.  Recommend: Screen soil samples from the site investigation for Asbestos in Soils, plus quantification analysis for all samples with positive asbestos identification to allow for quantitative risk assessment.  Note this risk assessment considers soils risks only and does not cover risks from fugitive dust during demolition or construction of existing buildings or structures.	
A02	identifiable Asbestos Containing Material (ACM) within the soil matrix)	Inhalation of liberated respirable fibres	H&S of site preparation and construction workers	Low likelihood	Mild	Low		
301	Radon	Migration into and accumulation within the pumping station building	Inhalation and impact on human health of end user	Low likelihood	Medium	Moderate/low	The granite bedrock below the site is a known source of natural radon gas which can migrate through granular soils. The available radon risk mapping indicates that the majority of the site area (99.4%) is shown to fall under an intermediate radon probability. However, the mapping shows that 0.6% of the site area falls within the higher radon probability designation. Radon risk areas are calculated based on various factors including the presence and nature of superficial deposits which may overly the bedrock source. While BGS mapping indicates the site to be underlain by Head Deposits, Blown Sand Deposits are also mapped in the local area.  Recommend: Further assessment including site 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.	
401	Made Ground		Underlying groundwater Secondary A aquifer within superficial deposits and underlying bedrock	Unlikely	Mild	Very low	Significant potential sources of contamination have not been identified and risks to controlled waters are considered likely to be very low.  Recommend: Based on the potential risk rating, site investigation may only be needed should unexpected contamination be found. Should unexpected contamination be encountered during the course of the redevelopment a suitably qualified geoenvironmental consultant should be contacted for advice.	
			Marine environment (sea) to the north and south of site					

### Table 3-4 Risk matrix

Risk =		Consequence					
probability x	consequence	Severe	Medium	Mild	Minor		
	High likelihood	Very high	High	Moderate	Moderate/ low		
	Likely	High	Moderate	Moderate/ low	Low		
Probability	Low likelihood	Moderate	Moderate/ low	Low	Very low		
	Unlikely	Moderate/ low	Low	Very low	Very low		
	No linkage	Without a linkage, there is not a risk – even if a contaminant is present (LCRM 2020)					

Based on the CIRIA good practice guide (C552, 2001).

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### 4 Conclusions and recommendations

## 4.1 Summary and conclusions

The proposed permanent works scheme involves the construction of a new larger, single storey pumping station to replace the existing structure. The new building will house replaced pumps and new screening equipment; minimal shallow excavation for likely raft foundations is planned for the new structure.

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 which has likely influenced the 25m grid mapping that slightly extends onto the site in the very 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.
- Very low potential contamination risk to controlled waters (surface water and groundwater) associated with potential Made Ground.

#### 4.2 Recommendations

The preliminary conceptual site model (CSM) and preliminary risk assessment outlined above has been developed to communicate and convey the *potential* contaminant linkages (CLs).

Site investigation and further assessment is required with regards to potential radon risks, based on the findings of the land contamination preliminary risk assessment.

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.

Construction of the redeveloped pumping station is likely to require excavation of existing natural soils that may be destined for onsite re-use or off-site disposal. In order to comply with current waste legislation or to demonstrate that materials which are designed to be retained on site are suitable for use, specific geochemical soil analysis should be undertaken as part of the site investigation.

Based on the available evidence and the continued use as a sewage pumping station as determined by the preliminary risk assessment, 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. This is with the exception of potential unknown contaminant sources that should be notified and addressed if identified.

# 5 Limitations and Liabilities

This report has been prepared by Pell Frischmann with reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the Client in accordance to the agreed scope of services.

This report has been prepared to provide pre-development geoenvironmental and land contamination information for the scheme of the St Mary's Bishop and Wolf Pumping Station and Screening Plant site. The report contents should only be used in that context and Pell Frischmann disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.

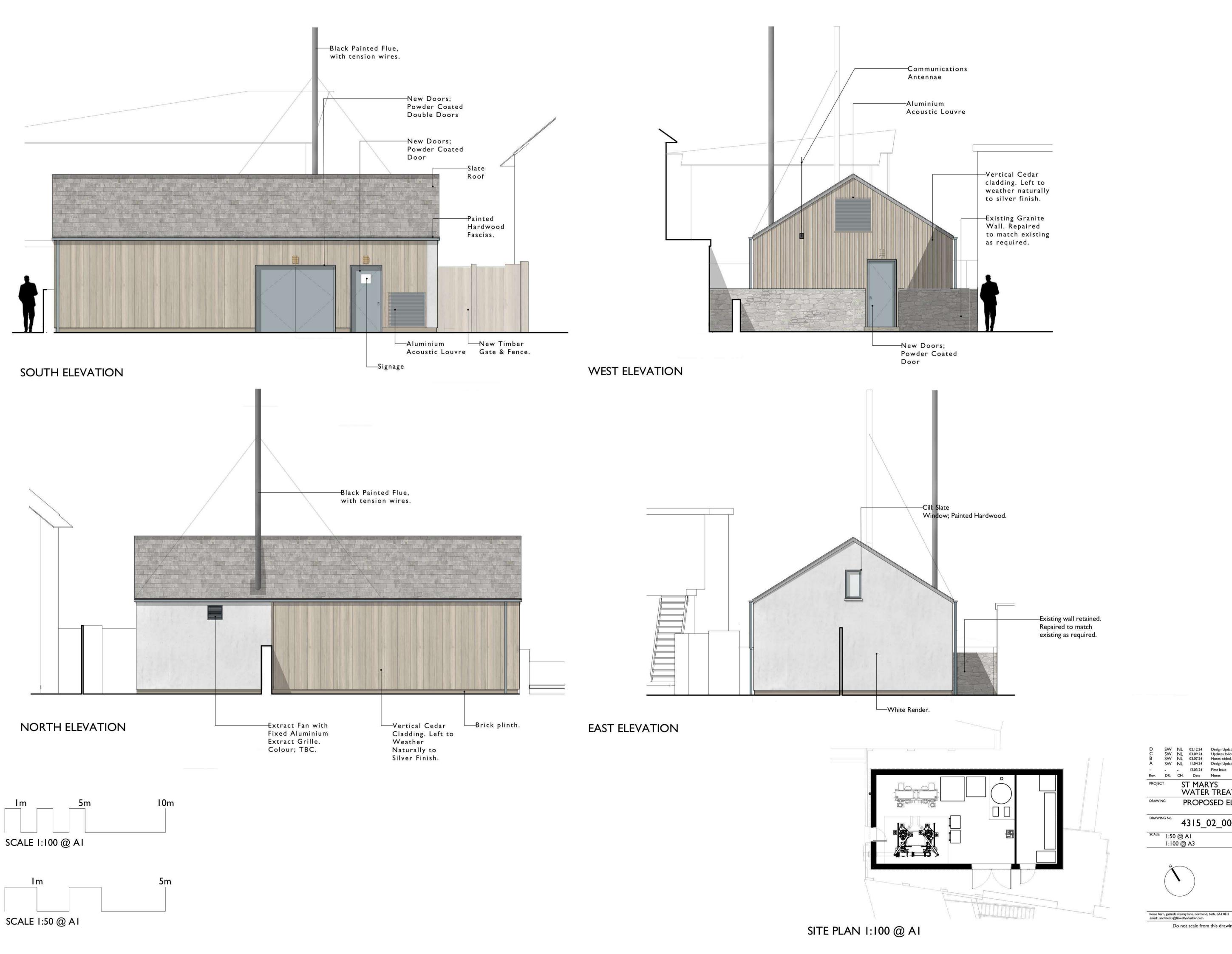
The report details the findings of work carried out by Pell Frischmann during a study period from July to August 2024. The report has been prepared on the basis of available information obtained during that study period. Information provided by the referenced third parties has been used in good faith and is taken at face value; however, Pell Frischmann cannot guarantee its accuracy or completeness.

Although every reasonable effort has been made to gather all relevant information within the context of the agreed scope of work, all potential environmental constraints or liabilities associated with the site may not have been revealed. Should additional Information become available (including new legislation and changed practices), after the date of the report submission, Pell Frischmann reserves the right to reconsider the recommendations and alter the report accordingly.

Notwithstanding any site observations concerning the presence or otherwise of archaeological sites, asbestoscontaining materials or invasive weeds such as Japanese knotweed, this report does not constitute a formal or specific survey of these potential development hazards. Unless otherwise stated, no assessment has been made for the presence of radioactive substances or unexploded ordnance.

# Appendix A Plans

(see also drawing 107780-PEF-WW-602-DDR-T-0003)



lowe

Do not scale from this drawing use figured dimensions only

 SW
 NL
 02.12.24
 Design Updates; Western Elevation

 SW
 NL
 03.09.24
 Updates following PF comments

 SW
 NL
 03.07.24
 Notes added.

 SW
 NL
 11.04.24
 Design Updates

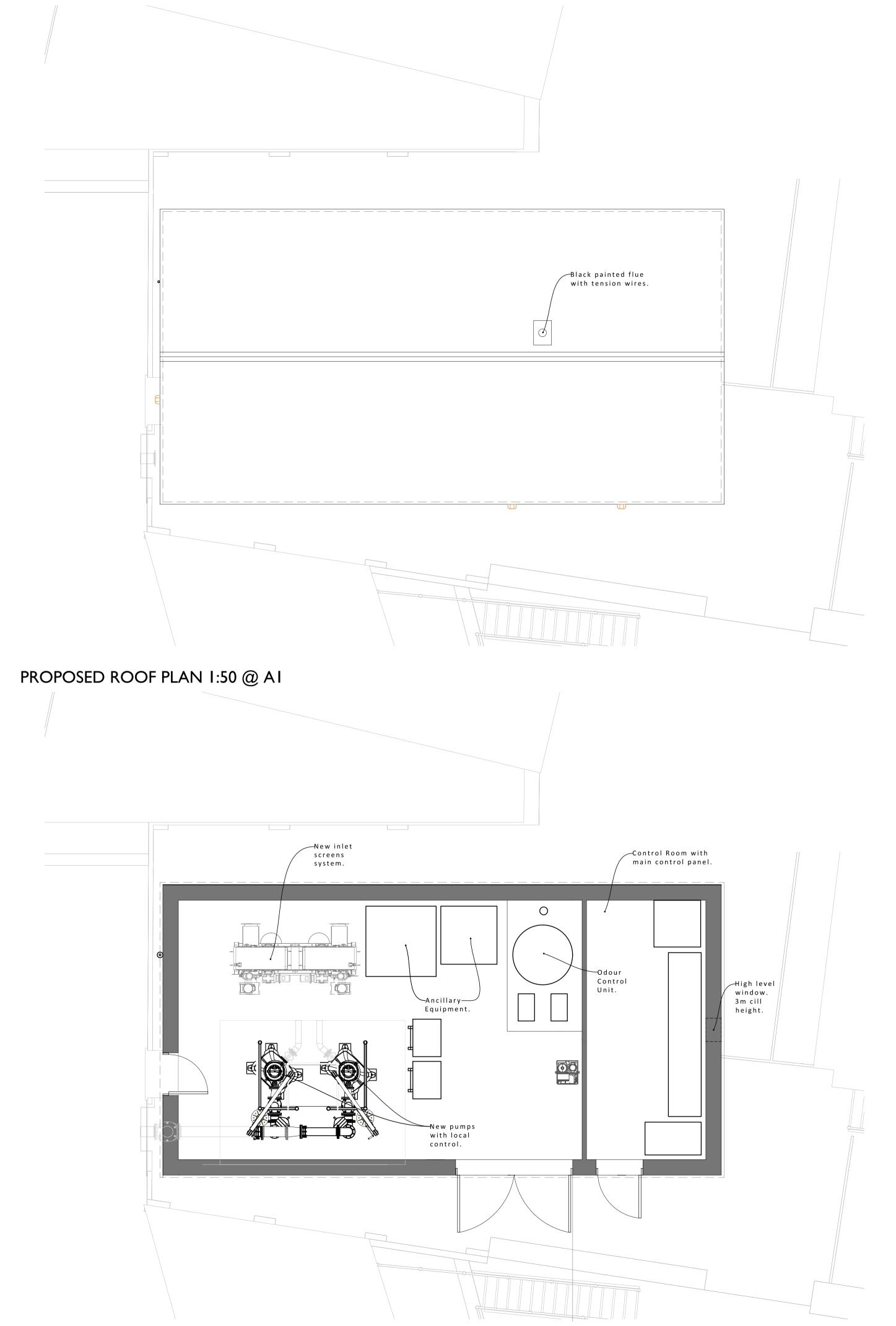
4315\_02\_001 D.

ST MARYS WATER TREATMENT WORKS

DATE: DEC 2024

llewellyn harker

PROPOSED ELEVATIONS



B SW NL 02.12.24 Design Updates; Western Elevation
A SW NL 27.08.24 Updates following PF Comments
- - - 09.07.24 First Issue
Rev. DR. CH. Date Notes

PROJECT ST MARYS
WATER TREATMENT WORKS
PROPOSED GF & ROOF

PLAN
4315\_02\_006 B.

SCALE: 1:50 @ A1 DATE: DEC 2024 1:100 @ A3

llewellyn harker lowe

home barn, gattrell, steway lane, northend, bath, BAI 8EH email: architects@llewellynharker.com © llewellyn harker architects 2023

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5m

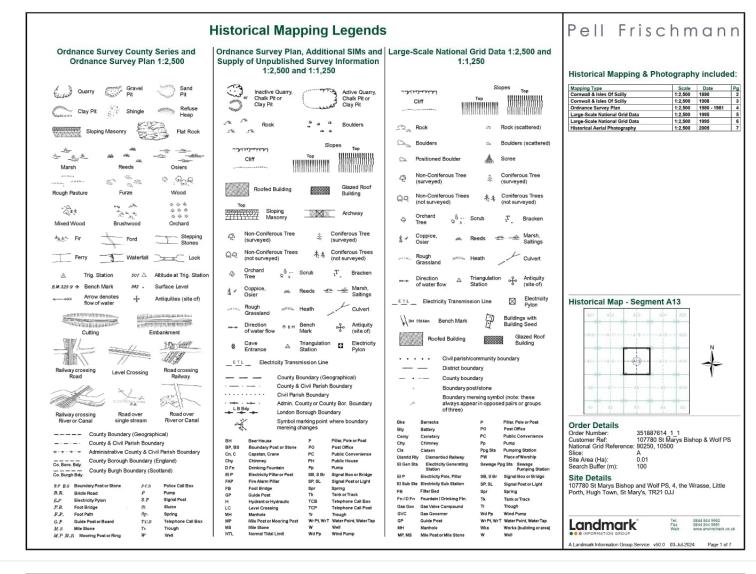
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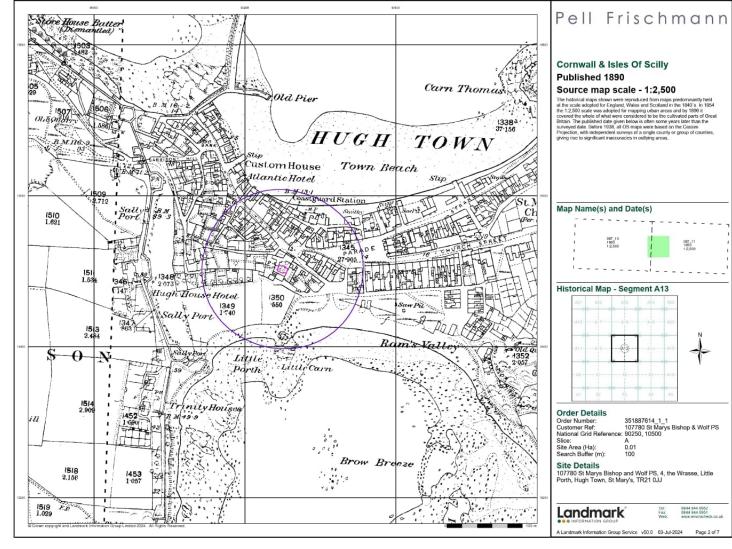
# Appendix B Historical maps

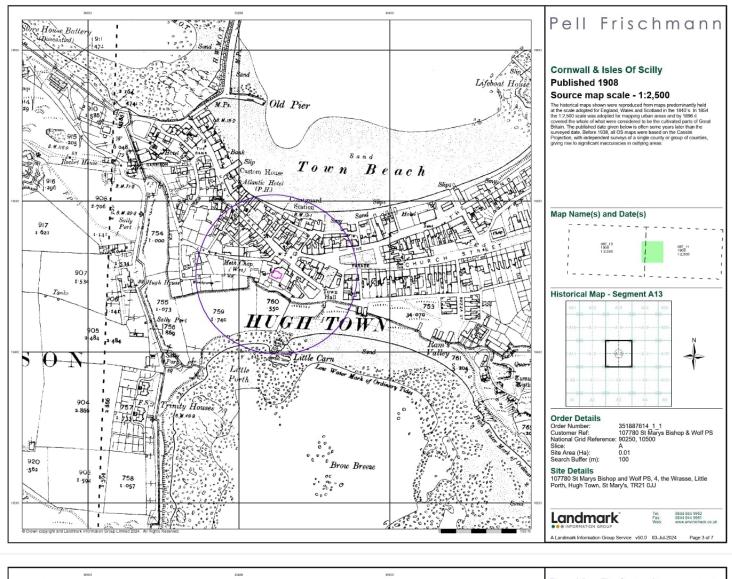
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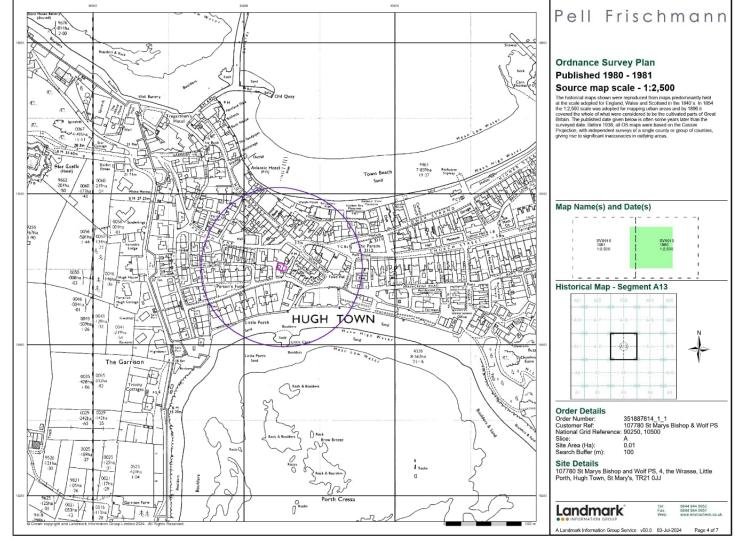
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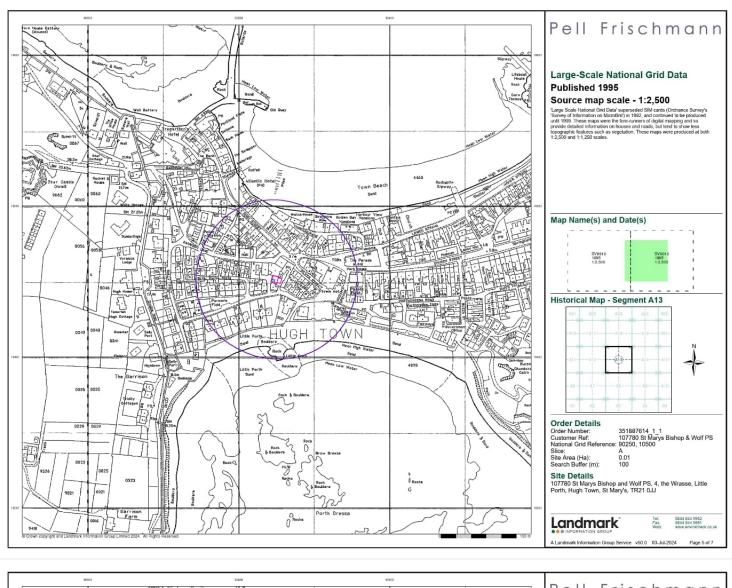
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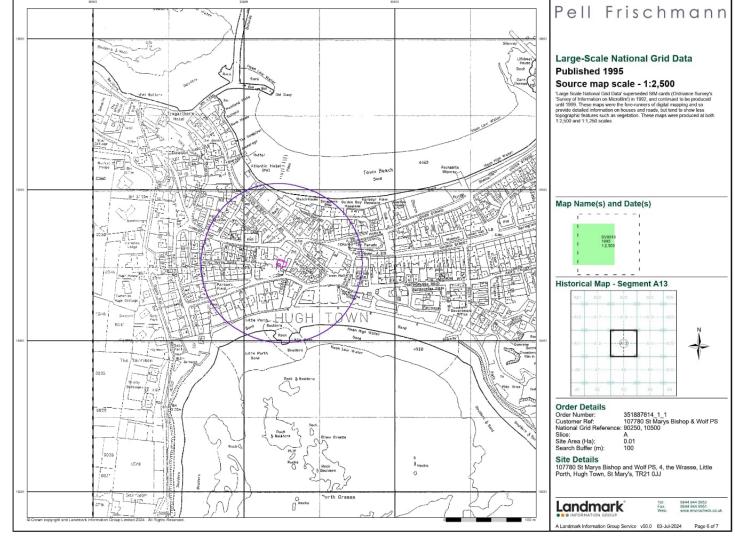




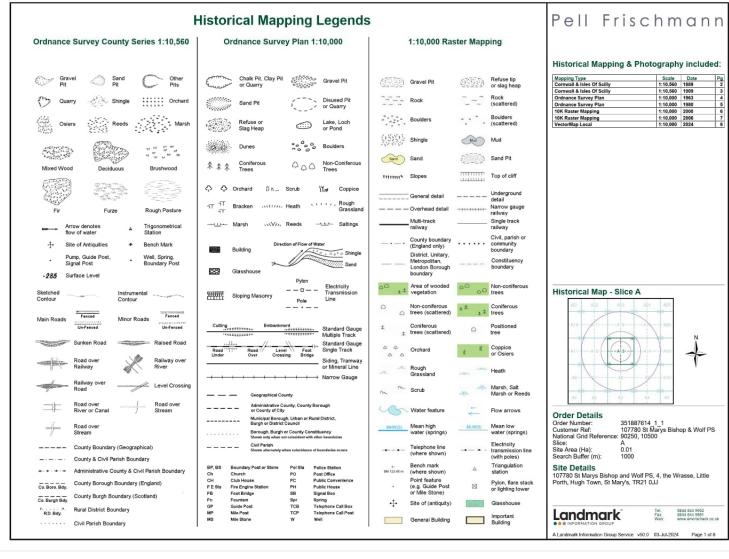


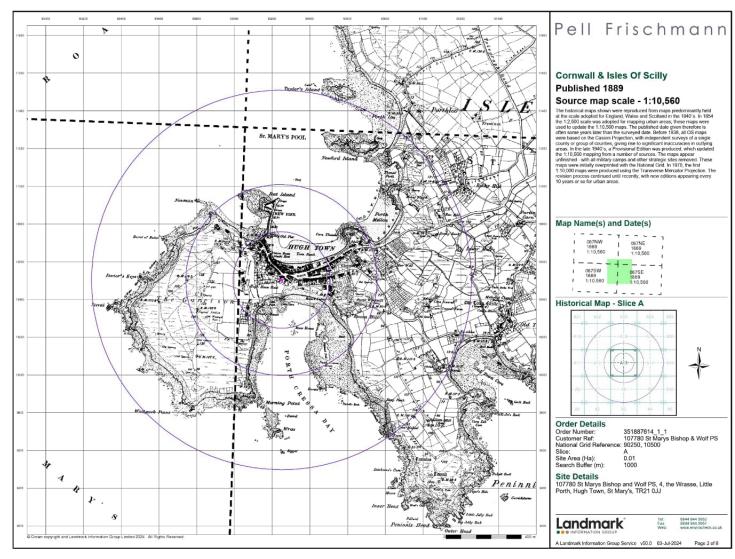


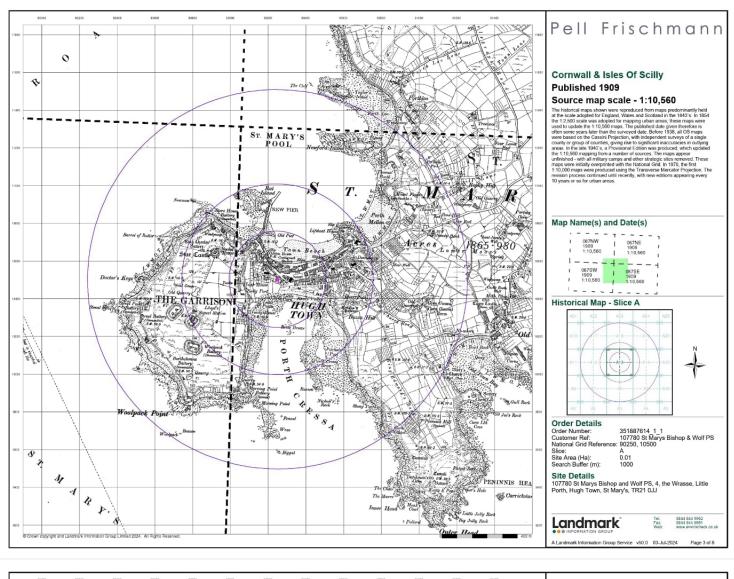


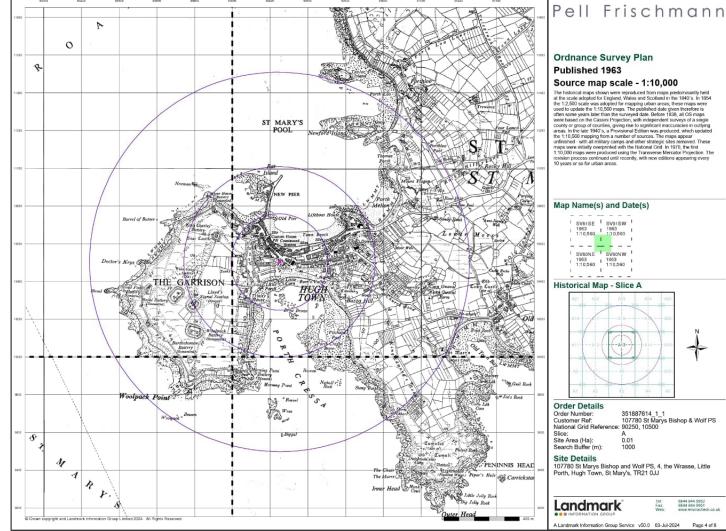


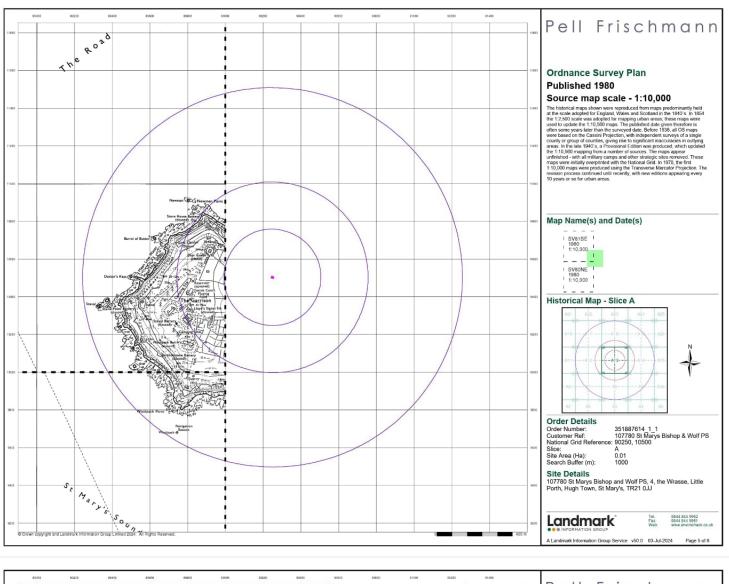


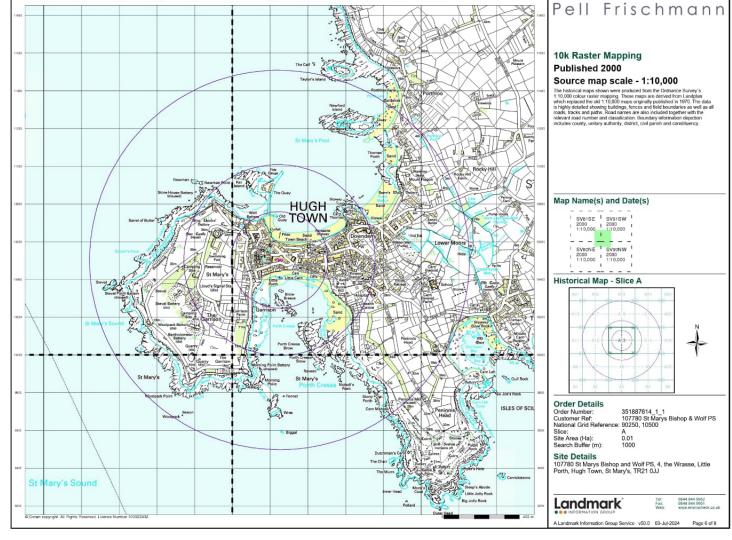


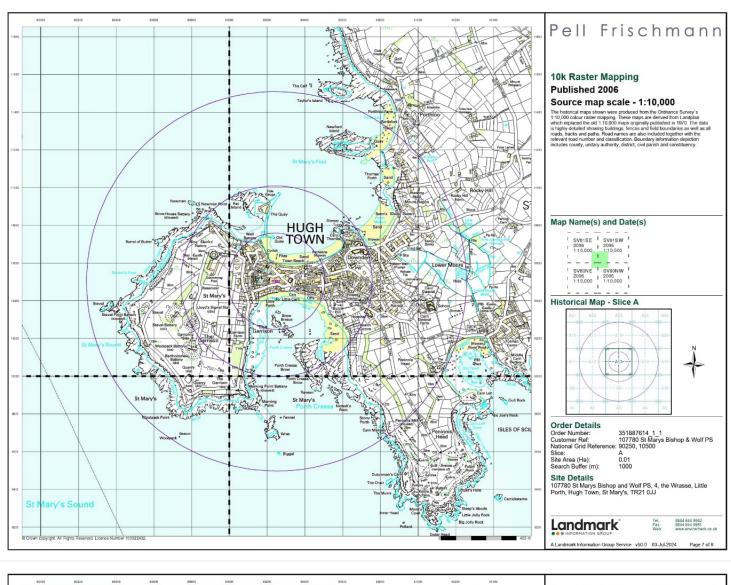


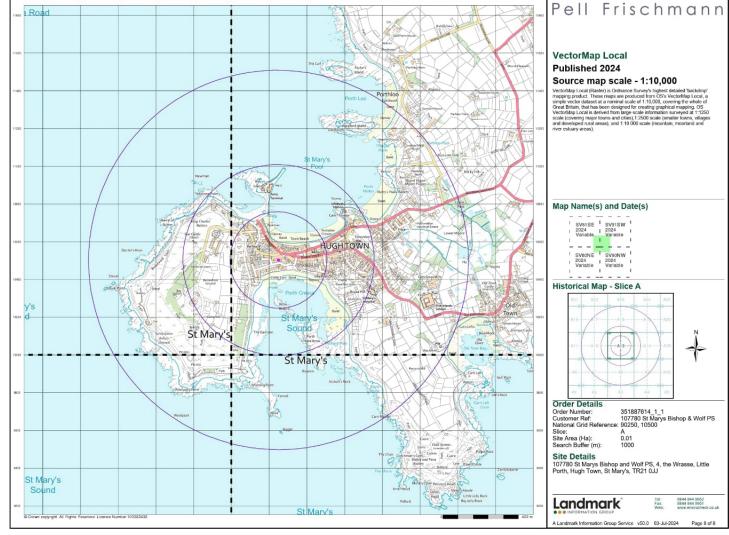












# Appendix C Envirocheck reports

(and datasheets)

# **Geology 1:50,000 Maps Legends**

## **Superficial Geology**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	TFD	Tidal Flat Deposits	Gravel, Sand and Silt	Not Supplied - Holocene
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	HEAD	Head	Clay, Silt, Sand and Gravel	Not Supplied - Quaternary
	BSA	Blown Sand	Sand	Not Supplied - Quaternary

#### **Bedrock and Faults**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	UDP	Unnamed Dyke, Permian	Felsite	Not Supplied - Permian
	ISIN	Isles of Scilly Intrusion	Granite	Not Supplied - Carboniferous
	ISIN	Isles of Scilly Intrusion	Microgranite, Aplitic	Not Supplied - Carboniferous
		Rock Segments		

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#### Geology 1:50,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial

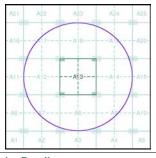
geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

## Geology 1:50,000 Maps Coverage

Map ID: Map Sheet No: Isles of Scilly Map Name: 1906 Map Date: Available Superficial Geology: Artificial Geology: Not Available

Not Supplied Landslip: Not Available

#### Geology 1:50,000 Maps - Slice A





#### **Order Details:**

Order Number:

351887614\_1\_1 107780 St Marys Bishop & Wolf PS Customer Reference:

National Grid Reference: 90250, 10500

A 0.01 Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

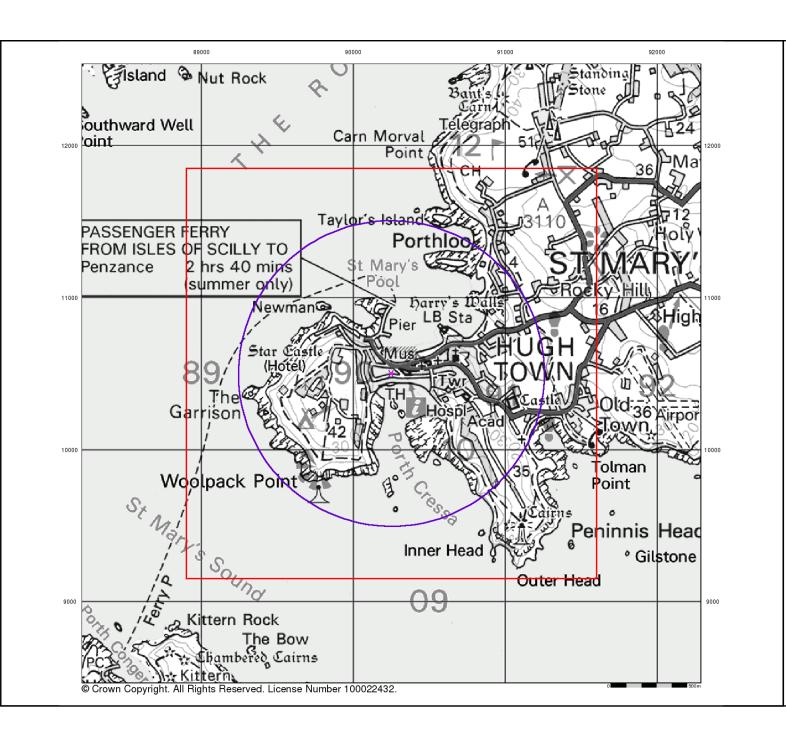
107780 St Marys Bishop and Wolf PS, 4, the Wrasse, Little Porth, Hugh Town, St Mary's, TR21 0JJ



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#### **Artificial Ground and Landslip**

Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

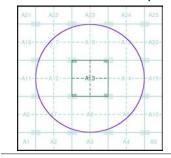
Artificial ground includes:

- Made ground man-made deposits such as embankments and spoil heaps on the natural ground surface.

  - Worked ground - areas where the ground has been cut away such as
- quarries and road cuttings.
- Infilled ground areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground areas where the surface has been reshaped.
   Disturbed ground areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence

#### Artificial Ground and Landslip Map - Slice A





#### **Order Details:**

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351887614\_1\_1 107780 St Marys Bishop & Wolf PS National Grid Reference: 90250, 10500

A 0.01

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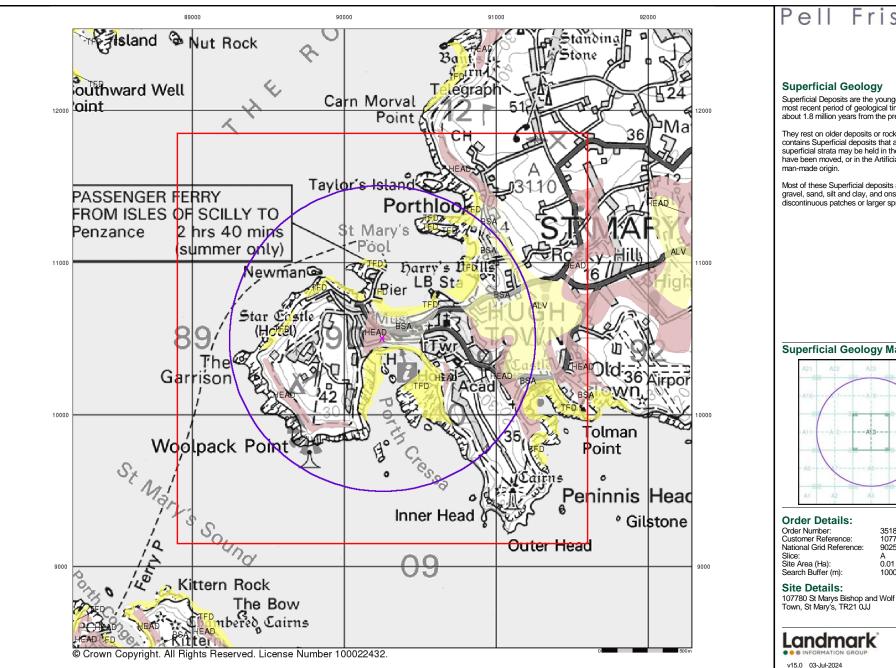
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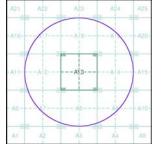


Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

### Superficial Geology Map - Slice A



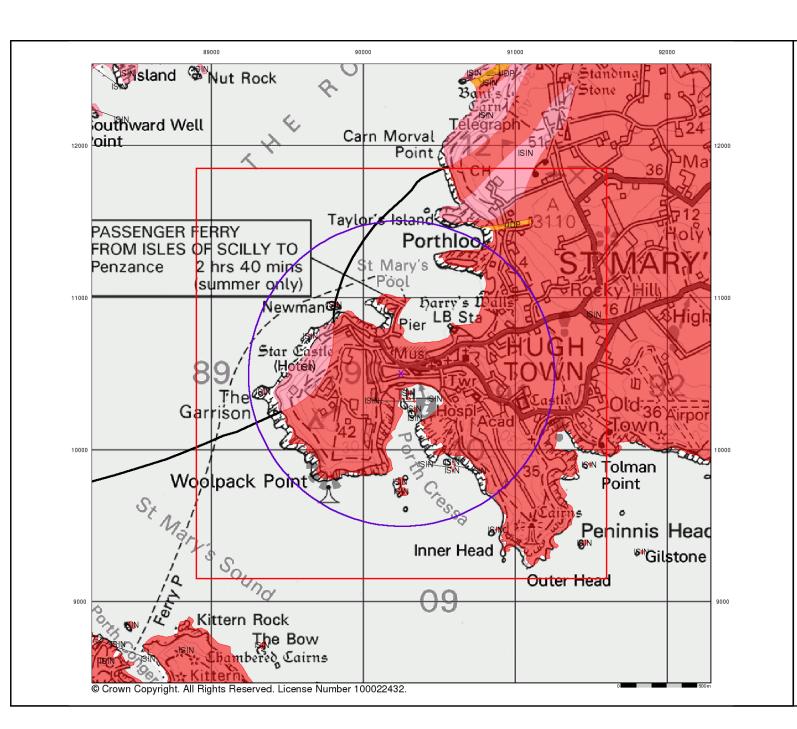
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#### **Bedrock and Faults**

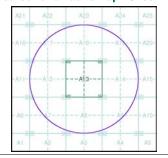
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

#### Bedrock and Faults Map - Slice A





#### **Order Details:**

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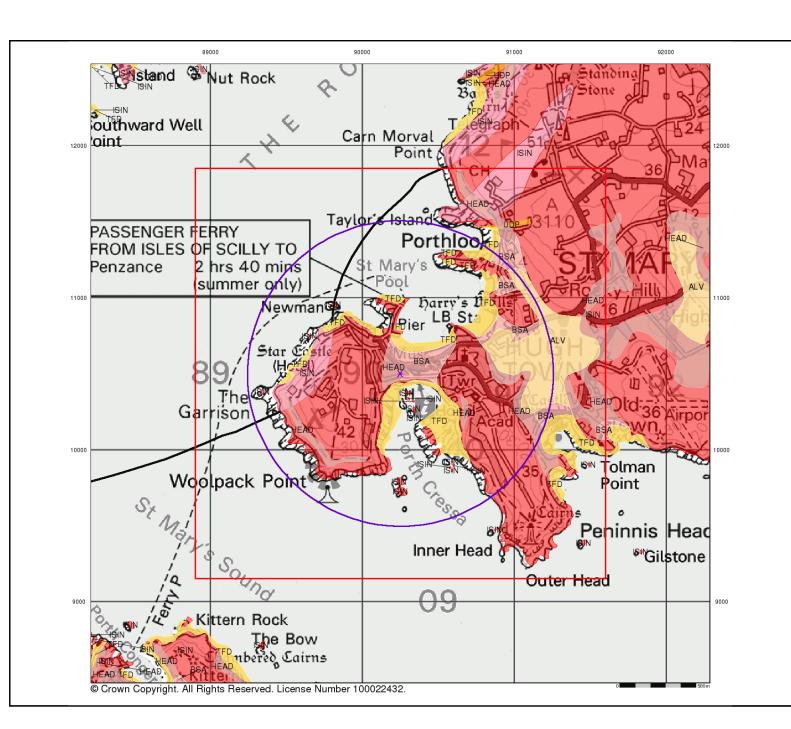
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#### **Combined Surface Geology**

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

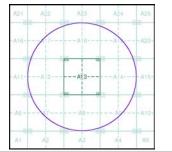
#### **Additional Information**

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

#### Contact

British Geological Survey Kingsley Dunham Centre Keyworth Nottingham NG12 5GG Telephone: 0115 936 3143 Fax: 0115 936 3276 email: enquiries@bgs.ac.uk website: www.bgs.ac.uk

#### Combined Geology Map - Slice A





## Order Details:

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National Grid Reference: 90250, 10500

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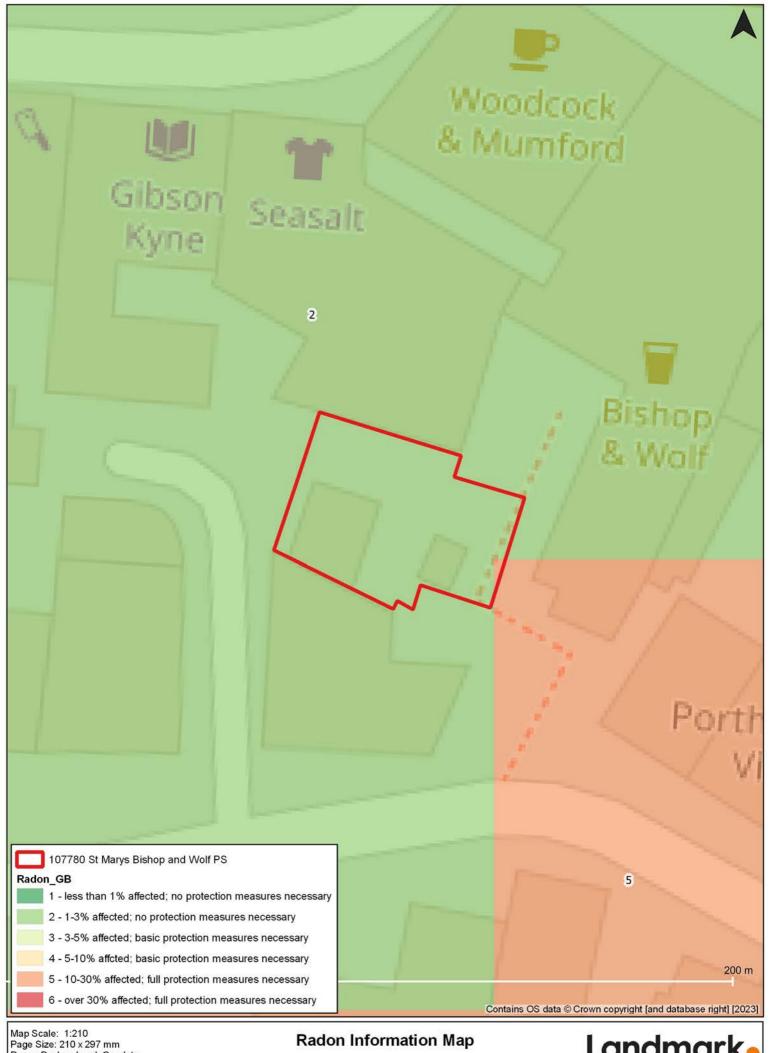
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Tel: 0844 844 9952 Fax: 0844 844 9951 Veb: www.envirocheck.c

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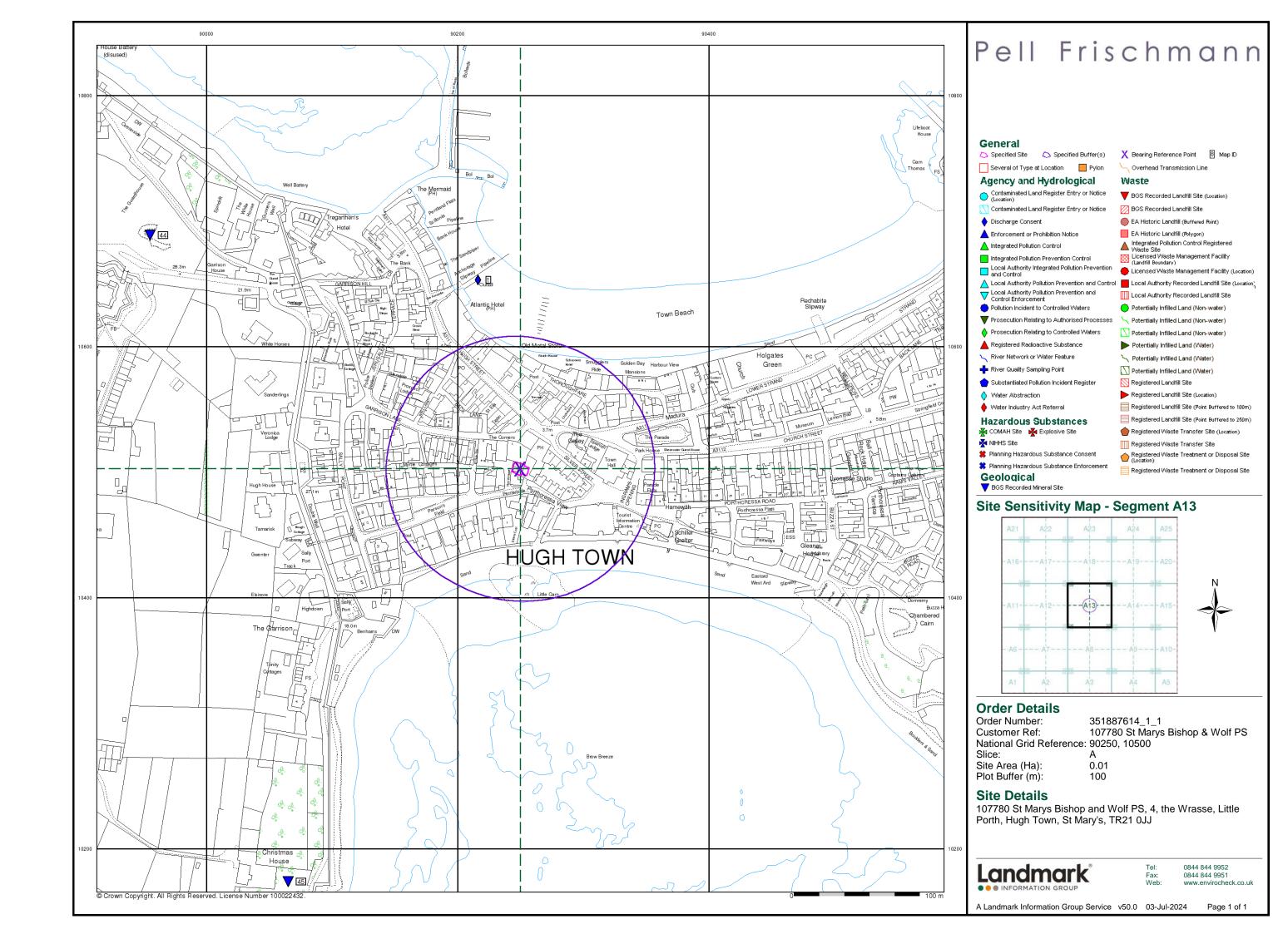
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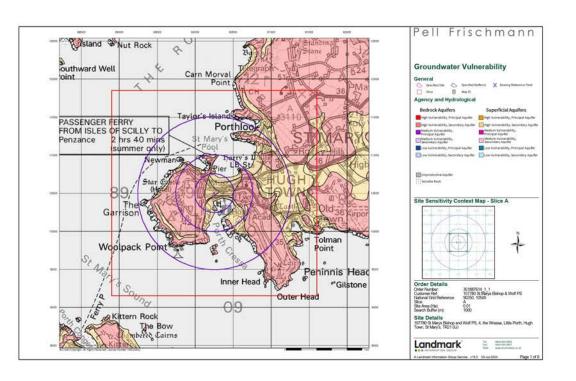


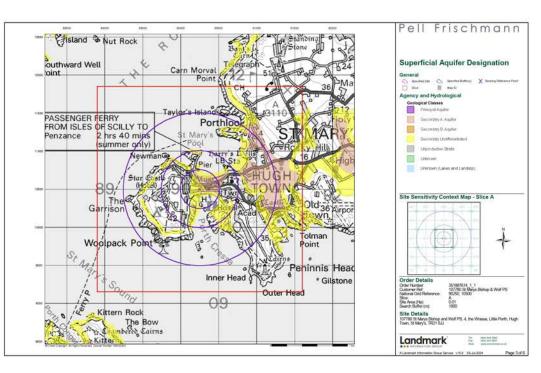
Drawn By: Landmark Geodata Commercial In Confidence Copyright Public Health England- all rights reserved

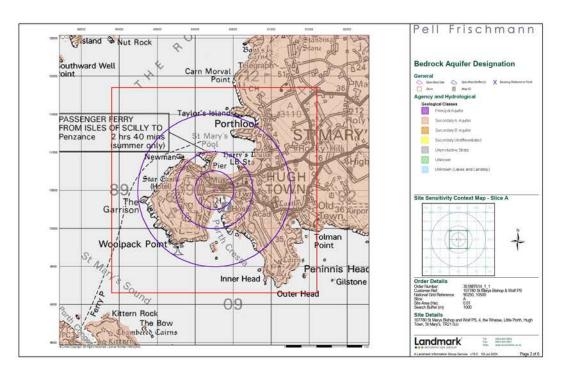
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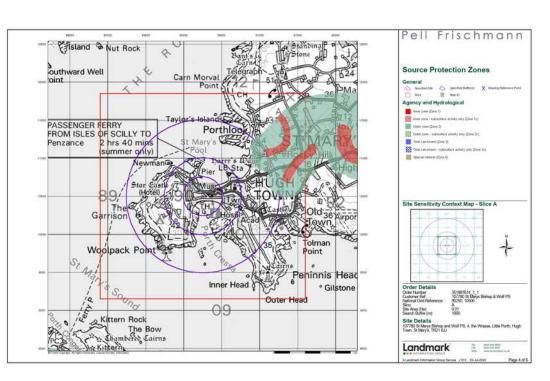


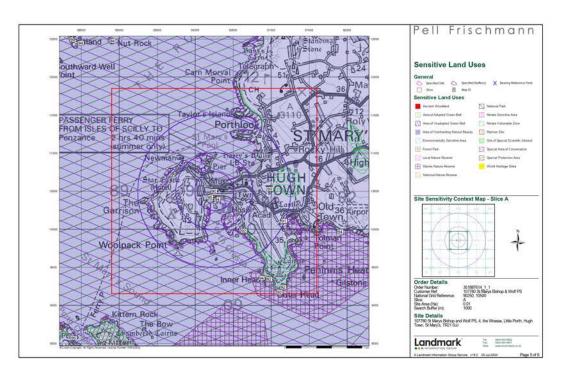


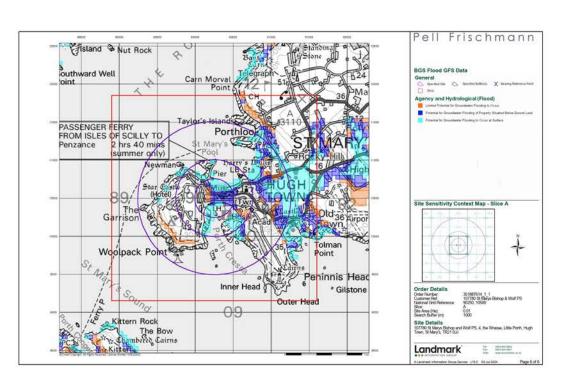


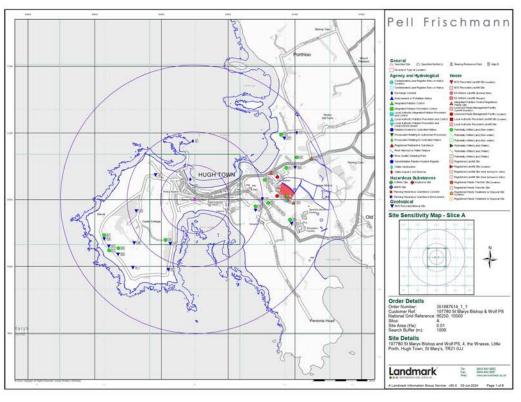


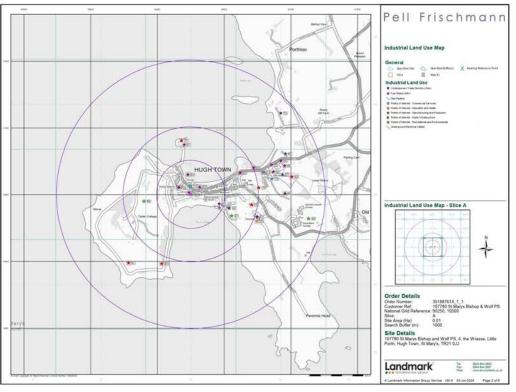


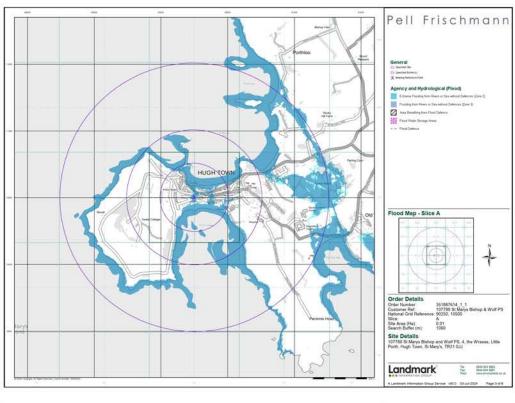


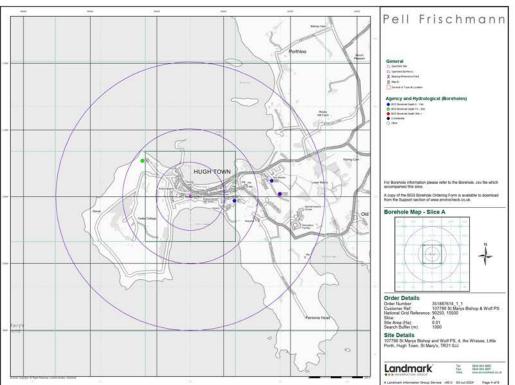


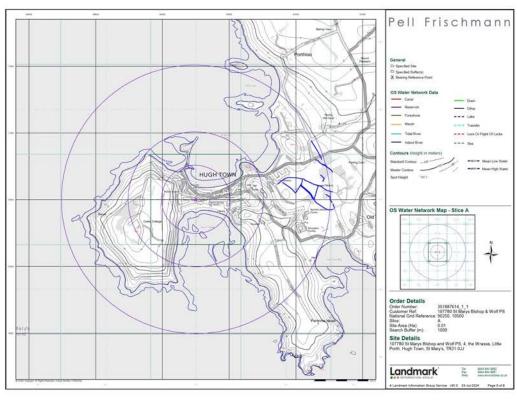


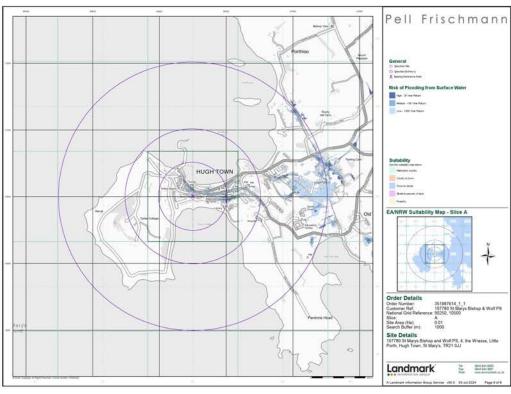


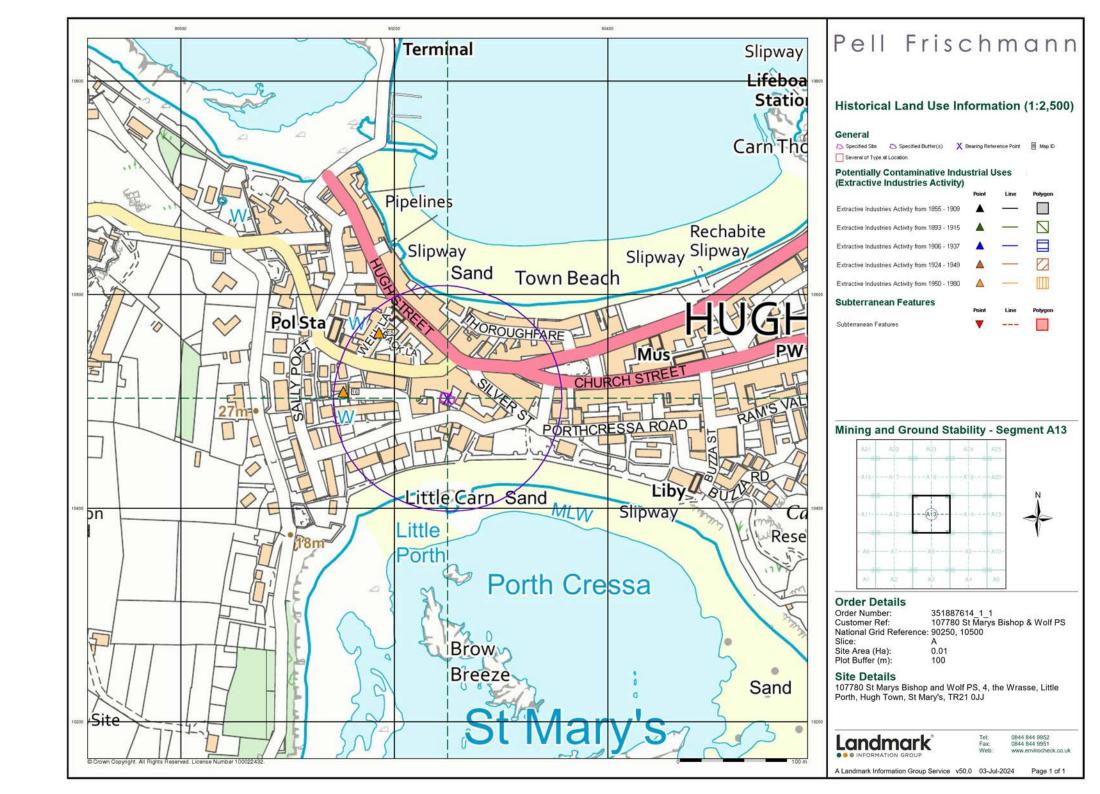


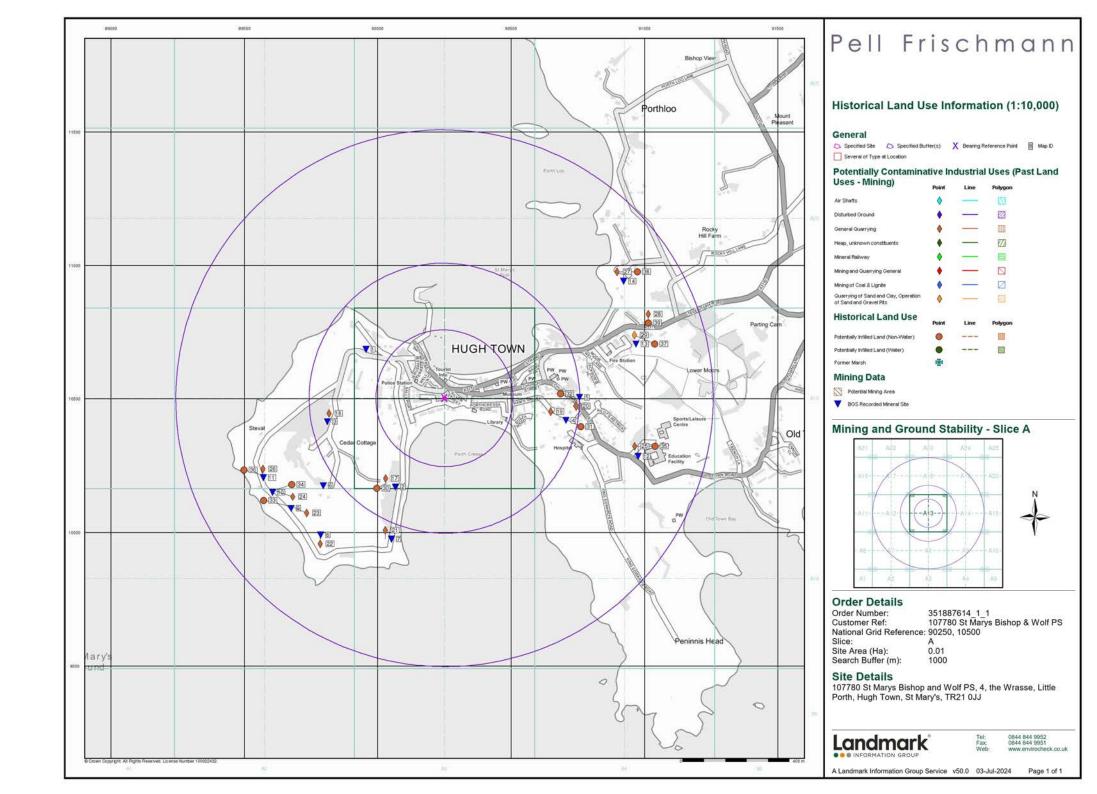


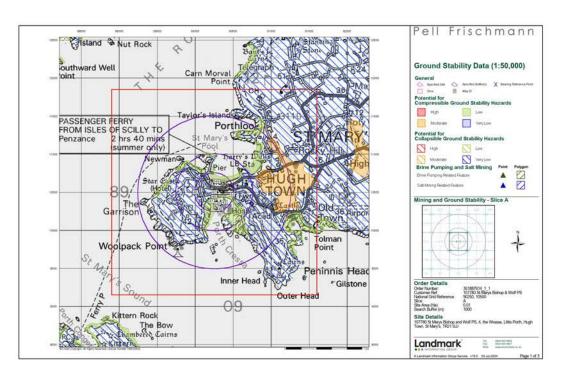


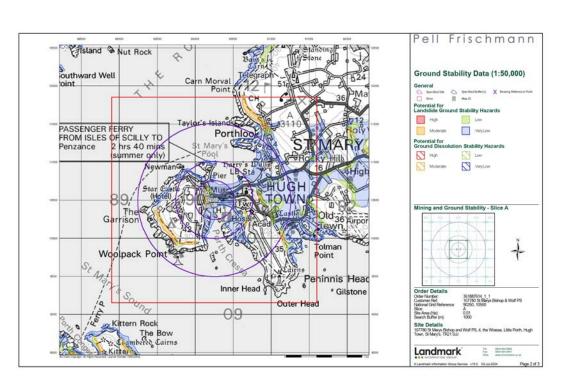


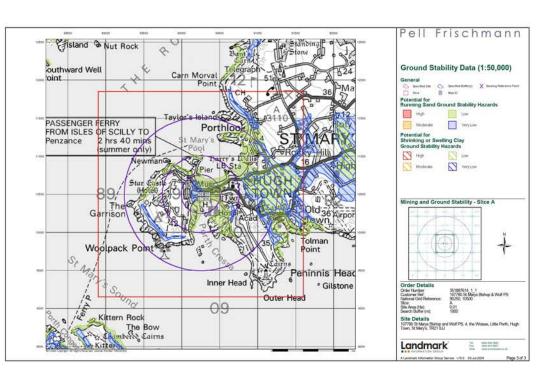












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Industrial Land Use	19
Sensitive Land Use	25
Data Currency	26
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Agency & Hydrological	Version	Update Cycl	
Fleeding from Rivers or Res without Defences Encounters Agency - Head Office	December 2023	Quarterly	
Areas Behafiling from Flood Selences Environment Agency - Head Office	February 2023		
Flood Water Storage Arese Environment Agency - Head Office	Jamany 2028	Quarterly	
Floor Definition Environment Agency - Head Office	August 2012		
05 Water Referent Lines Ordnance Survey	April 2024	Quarterly	
Surface Water 1 in 38 year Flood Extent Energyment Agency - Heat Office	May 2018	Annually	
Surface Water 1 in 100 year Flood Estent Environment Agency - Hood Office	May 2018	Annually	
Surface Water 1 to 1000 year Flood Extent Environment Agency - Hood Office	May 2018	Annaly	
Surface Water Sultability Environment Agency - Yeart Office	Patroney 2016	Arrivally	
5GS Groundwater Flooding Societishity Street Geological Survey - National Geometrics Information Service	May 2013	As nother	
Waste	Version	Update Cycle	
808 Recented Landfill Sites Billion Geological Survey - Matured Geoscopica Information Service	Name and Add a	As nother	
Materical Landfill Stee Econolistics Agency - Head Office	May 2024	Duemeny	
Integrated Publisher Control Registered Wests Sites Environment Agency - South Wind Region	January 2008	Not Applicable	
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - South West Region - Decon and Corneal Area	May 2024	Querrerly	
Comment Waste Management Facilities (Locations) Encomment Ageloy - Booth West Fagure - Design and Comment Area	January 2023	Querarly	
Local Authority Landilli Coverage lines of Solly Council	February 2000.	No Approxima	
Local Authority Recorded Landiti Sites tons of Solly Council	Oxenw 2018		

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Data Supplier	Data Supplier Logo
Ordinance Survey	@5
Environment Agency	0
Scottish Environment Protection Agency	SEPAP
The Coal Authority	The Court Authority
British Geological Survey	British Geological Survey
Centre for Ecology and Hydrology	Cooling to Stydendings
Natural Resources Wales	• 100
Scotlish Natural Heritage	2000
Natural England	
Public Health England	Public Health England
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## Data Currency

Hazardous Substances	Version	Update Cycle
Control of Wolpe Architect Hazards Sites (COWAN) Health and Sofre Executive	January 2024	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	7
Notification of tristalations Handling Hazardous Substances (NOHS) Heath and Soliny Executive	August 2001	2
Planning Hazardous Substance Enforcements tons of Solly Council	May 2523	tombs
Planning Hazardous Bulletance Consents takes of Solly Council	May 2023	Yaratin
Geological	Version	Update Cycle
805 1:525,990 Solid Geology Britan Geological Survey - National Geological Information Service	January 2009	As nother
808 Extended Bull Chemistry British Gerlinginst Suryey - National Geosphessa Information Service	Geometer 2015	As settled
BGS Recorded Mineral Sides Sistem Geological Screey - National Geoscience Internation Service	January 2004	B-Annually
CBSCB Congenisation District Cleaning Street Subsidies Congenisation Stand (CBSCB) District Street Subsidies Congenisation Stand (CBSCB)	August 2011 November 2020	As softed
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Lipideon
Wining traceoutly Ove Ang & Partners	June 1986	. Not Assistation
Non Coal Mining Areas of Great Britain Britain Geological Survey - National Geosphesia Information Service	May 2015	Not Applicated
Potential for Collegeliste Ground Stability Hearrile Sistem Costopical Survey - Naturel Geoscietics Information Service	April 2000	As softed
Potential for Compressible Ground Stability Hazards Sistem Contegral Survey - National Geosphesia Internation Service	Sensory 2018	As sutfeet
Potential for Ground Dissolution Statistic Mazards British Gestington Survey - National Geospheros Information Service	January 2018	As notified
Futurital for Landsfele Ground Boldrifty Hazards British Geological Survey - National Geospheise Information Service	Armers 2019	As milhed
Potential for Funning Sand Ground Statisticy Hazards Sidnet Geological Survey: National Geoscience Information Service	January 2018	As named
Focundal for Electring or Electring City Ground Statistic Massets British Geological Survey - National Geospheiros Information Service	January 2019	As nother
Radon Potential - Radon Affauted Areas British Geological Survey - National Geologicose Information Service	Orioter 2025	Annaly
Rates Potential - Kedon Protection Missures British Geological Survey - National Geospheros Information Service	Outstee 2023	Armaly

#### Pell Frischmann

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Useful	Contacts

Contact	Name and Address	Contact Details
*/.	British Geological Survey - Exquiry Service Stree Geological Survey, Environmental Science Centre, Keyworth, restingtion, Autoriphameters, NG12 FOO	Temphone 0115 838 3143 Fax 5118 908 2016 Small employee@bgs ac an Watester were ligh ac an
*	Environment Agency - National Customer Contact Centre (HCCC) PO Ros S44, Templotomoph, Rotherham, S81 18Y	Telephone 93708 508 506 Email enquines@environment.egency.gin.uk
1	Isles of Soilly Council - Environmental Health Department Tour Het, It Mays, see Of Soils, TRUL II,W	Yelephone (1170 8205)* Yes 51721 432202 Website were softy gas uk
•	Environment Agency - Head Office File Insue, Materials Drive, Albeit Meet, Amendatury, Sressi, Avan, 8500 600	Tolophore (India 60460) Pac 01454 624609
•	Ordinance Survey Adans: Direc Southerspilor, Hampshire, 5016 SAS	Telephone: 63454 (6.05 till. Emak customeren exa@ordramesurrep.co.uk Website: swer ordramservep.gon.uk
	Inles of Scilly Council from Hall, St. Marys, John of Scilly 1921 St.W	Telephone (0120 4200)* Fax 51120 42000* Vetols over soll; pin uk
*	PointX 5-4 Abbey Court, Eagle Way, Sowten, Easter, Devon, EXG THY	Website www.pomts.co.uh
	Natural England County trait. Specifies Road, Worsester, WKS 2NP	Telephone. C00 000 3000 Ernal enquires@nationlenglant.org.se Wetsite: were recovered org.se
8	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Onton, Debts, Orlondone, 0111 850	Takentoner (HISS 60062) Fac. 51201 603891 Evicet restingly/re por se Waterle was skraton org
200	Landmark Information Group Limited Imperum, reported tray Realing, Bertanes, RGZ 272	Tamphone 0846 844 9952 Fax - 9846 846 9951 Email: sustamental relationship for us Watelet may landmarkets on us

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Industrial Land Use	Version	Update Cycle
Commencery Nade Directory Entities Thomson Directories	April 2024	Quarterly
Fuel Station Extrine Catalist Ltd - Experien	Peinvery 2004	Quarterly
Gas Pipelines National Grid	Ontober 2021	BiAmaly
Points of Interest - Communical Services Points	Aprel 2004	Quarterly
Purms of Interest - Education and Health Forcit.	Arm 2004	Quarterly
Public of Interest - Menufacturing and Freduction Porcis	Apre 2004	Quarterly
Points of Interest - Public Infrastructure Points	June 2004	Quarterly
Points of Interest - Recreptional and Environmental Points	Aure 2004	Quarterly
Underground Electrical Cables National Grid	January 2004	B-Armada .

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#### Data Currency

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Training England	Apri 2020	Bi-Arready
Areas of Adopted Green Both time of Sully Council - Planning Department	February 2024	Guerrany
Areas of Unadopted Green Belt tore of Suity Council - Flamming Department	February 2028	Quarterly
Areas of Outstanding Natural Beauty Natural England	May 2024	B-Armaty.
Errosomentally Sensitive Areas Natural England	August 2023	
Forest Parks Forestry Commission	Wey 2523	Nor Assessment
Local Nature Reserves Natural England	February 2008	Br.Amusty
Wartine Natione Reserves National Empland	Falmury 2021	b-Armaty.
National Nation Reserves	February 2020	Edwardy
National Fashs National England	February 2018	Si-Armady
Nitrate Sansitive Areas Natural England	April 2023	Not Approprie
Nitrate Volteration Zames Cognetinant for Environment, Food and Rural Affairs (CEFRA - Namerly FRCA) Environment Agency - Head Office	April 2018 April 2028	. Bi-Armady
Ramear Sites Natural England	February 2004	BrAmuely
Stee of Special Scientific Interest National England	April 2024	Bi-Armoshy
Special Areas of Conservation Secural England	April 2024	Si-Armada
Special Protection Areas Secure Cripmi	April 2024	Bidmak

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