

Apollo Subsea Cable Systems Limited

Water Framework Directive Assessment

Beaufort HDD and Duct Installation



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Acronyms

Term	Definition
BHA	Bottom Hole Assembly
EPR	Environmental Permitting Regulations
EQSD	Environmental Quality Standards Directive
EU	European Union
GES	Good Environmental Status
HDD	Horizontal Directional Drilling
HDPE	High-Density Polyethylene
HRA	Habitats Regulations Assessment
INNS	Invasive Non-Native Species
Km	Kilometre
MBES	Multibeam Echo Sounder
NRW	Natural Resources Wales
NVZs	Nitrate Vulnerable Zones
OD	Outer Diameter
PPP	Pollution Prevention Procedure
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
SPA	Special Protection Area
UWWTD	Urban Wastewater Treatment Directive
UK	United Kingdom
WFD	Water Framework Directive



1 Introduction and Scope

1.1 Introduction

- 1.1.1 GoBe Consultants Ltd (GoBe), part of the APEM Group, has been contracted by OCU Utility Services (HDD Division) to prepare a Band 3 marine licence application for the proposed Horizontal Directional Drilling (HDD) works (hereafter referred to as 'the Project') at Newgale, Pembrokeshire. These works are intended to facilitate the subsequent installation of the Beaufort subsea telecommunications cable, which will be operated by Vodafone's wholly owned subsidiary Apollo Submarine Cable System Limited in the UK (referred to as Vodafone).
- 1.1.2 This Water Framework Directive (WFD) Assessment covers both the offshore and onshore elements of this project. This report has been submitted to NRW with only the offshore detail contained given the jurisdiction of NRW extends from Mean High-Water Springs (MHWS) to 1 nm offshore. The onshore elements are included here for the consideration of Pembrokeshire Coast National Park Authority as part of the planning application for these HDD and excavation works.

1.2 Project Overview

- 1.1.3 Vodafone is proposing the installation of a fibreoptic telecoms cable (hereafter referred to as 'the cable') from Kilmore Quay, Wexford, Ireland to Newgale, Pembrokeshire, Wales. The cable will come ashore through the car park of the Newsurf Shop (approx. National Grid Reference (NGR) SM 84838 22197)), where it will be connected to onshore infrastructure.
- 1.1.4 The site is located at Newgale, Pembrokeshire, South Wales and comprises three car parks (The Duke of Edinburgh Inn car park, the Newsurf Shop car park and Sands Café car park) (hereafter referred to as 'the Site'). The Project represents the onshore works to receive the cable only; the associated offshore HDD works are subject to a Marine Licence Application, which was submitted to Natural Resources Wales on 10 March 2026 (CML2607).
- 1.1.5 Once the Project is constructed, the cable will come ashore through an offshore HDD installed duct into the Newsurf Shop car park, where it will be connected to onshore duct infrastructure.

This WFD assessment aims to determine the effects of the Project on ecological, hydromorphological and chemical quality, and identify any potential impacts that could cause deterioration in the current status of a water body or could hinder a water body from meeting its WFD objectives in the future.

Onshore Activities

- 1.1.6 For the purposes of this WFD Assessment, onshore activities are considered as those which will take place above MHWS, however the onshore drilling activities at the proposed launch location associated with the Marine HDD is described in the Marine Activities section.
- 1.1.7 To facilitate connection of the cable to onshore infrastructure, Onshore HDD works are proposed to install cable ducting, through which the cable will later be fed.



- 1.1.8 The Onshore HDD and duct works involves the installation of three underground chambers and installation of four 63 mm High-Density Polyethylene (HDPE) sub-ducts, which will be laid in a 2 x 2 configuration inside a 200 mm wide trench. The trench will be dug using an excavator, and sand will be placed into the dug trench to act as the bed.
- 1.1.9 The Onshore HDD will begin from Sands Café car park (approx. NGR SM 84754 22326) and will proceed beneath Brandy Brook and exit within the Newsurf Shop car park (approx. NGR SM 84775 22241) (Figure 1-1). Here, two concrete chambers (Approx. 1.5 m deep and 1.12 m wide and 1.67 m long) will be installed on either end of the HDD. The final manhole (Approx. 3.4 m long, 2.5 m deep, 2.4 m wide) is constructed at the end of the marine HDD.
- 1.1.10 As the drillstring passes beneath Brandy Brook, it will be roughly 4.5 m below the bed of Brandy Brook.
- 1.1.11 The Onshore small HDD works are expected to commence in September 2026 and are anticipated to last approximately 34 days in total, including site mobilisation, construction, and demobilisation from site.



Figure 1-1 Onshore HDD location

- 1.1.12 To facilitate Marine HDD, an onshore area approximately 2700 sqm within Newsurf Shop car park (approx. NGR SM 84838 22197) and Duke of Edinburgh car park will be required as the proposed launch location for the operation of the Marine HDD drilling rig and support equipment/vehicles, as shown in Figure 1-3.



Marine Activities Overview

- 1.1.13 For the purposes of this WFD Assessment, marine activities are considered as those which will take place below MHWS, except for the onshore component of the Marine HDD at the proposed launch location (Figure 1-3).
- 1.1.14 For the Marine HDD, operations will begin with a pilot hole. Then, the drilling will be carried out continuously in an offshore direction at intervals of 9.5 m, equivalent to one length of drill pipe, until the Bottom Hole Assembly (BHA), is at an along hole length of roughly 300 m (i.e., horizontal at the end of the Entry Curve). The drill string will then continue to punch out on the seabed at a drilled length of 920 m. The BHA is the lowest section of the drill which is effective for rock cutting, directional control and real-time acquisition of drill location (via the wireline).
- 1.1.15 The Marine HDD will exit from a subsea point approximately 920 m from shore, the exact location of which will be confirmed using a Multibeam Echo Sounder (MBES). Once confirmed, a dive vessel will be mobilised to this exit point, and divers will attach air bags to the BHA. The BHA can then be cut from the drill string and floated to the surface, where it will be retrieved, and a bell mouth will be attached to the drill pipe. The bell mouth will be attached using a propriety clamp to prevent any entry of sediment within the drill pipe prior to cable installation. The bell mouth will not protrude from the seabed and will lie flush on the end of the drill pipe.
- 1.1.16 At the exit point, a marker buoy will be attached to a clump weight to indicate the location and the BHA and wireline will be recovered to shore.
- 1.1.17 The HDD works are expected to commence in October 2026 and are anticipated to last approximately 57 days in total, including site mobilisation, construction, MBES surveys and demobilisation from site.
- 1.1.18 The majority of the HDD works, including plant and equipment will be located on land (outside of the marine licensable area) and up to 16 m underground/under the seabed (partially within the marine licensable area). The drilling operations will reach the marine licensable area approximately 55 m from the drill launch, and will be located at a depth below the seabed of 10-16 m. The drill is designed to exit within a defined target area of approximately 224 cm² on the seabed, at a water depth of approximately 6 m LAT. The exact location of which will be confirmed using a MBES survey. The size of the drill exit point will approximately reflect the outer diameter (OD) of the drill pipe, estimated at 16.83 cm.
- 1.1.19 Figure 1-4 illustrates Marine HDD line in relation to the surrounding WFD water bodies.

1.3 Embedded Mitigation

- 1.1.20 This section identifies the mitigation measures associated with the onshore activities and marine activities, which are considered embedded (inherent). Construction works will be undertaken in accordance with best practice pollution prevention measures to protect surface water bodies and groundwater bodies, including:
- CIRIA C532: Control of water pollution from construction sites (2001);
 - CIRIA C744: Coastal and marine environmental site guide (second edition, 2015);
 - CIRIA C750: Groundwater control: design and practice (second edition, 2016);



- CIRIA C811: Environmental good practice on site guide (fifth edition, 2023); and
- Guidance for Pollution Prevention (Netregs, various).

Onshore Activities

1.1.21 For the Onshore Activities, the Contractor (BRM) have specified embedded mitigation measures in the HDD Risk Assessment and Method Statement document (BRM, 2026) to reduce potentially negative impacts on the environment. This is in addition to the decision to use HDD as the preferred construction methodology to cross Brandy Brook, as opposed to an open-cut crossing, which would carry a significantly higher risk of adverse impacts to this water body. Measures included in the HDD Risk Assessment and Method Statement include:

- Notification to enforcing bodies by BRM in advance of any work being undertaken close to Brandy Brook.
- Plant will be inspected visually daily; all plant will have spill kits with additional spill kits kept on site.
- Small plant will to be used will be on drip trays/spill nappies.
- Small plant to be re-fuelled in the main yard and any larger plant must be moved away (by at least 10 m or greater if possible) from any water courses or drainage ditches prior to being re-fuelled to prevent contamination.
- Any fuel bowser must be located/kept at the main site at >10m from any watercourse and will have a drip tray stored below which will be used to prevent ground contamination. It must be sited on an impermeable base, and within a bunded tank or other such container that can hold 110% of the fuel tank capacity.
- All dug materials must be separated and stored in such a way to minimise sediment loss and located at least 10 m from any watercourse and outside of any area of flood risk (as far as practical).
- Silt fencing (or similar) will be installed surrounding any excavated material or other stockpiles to prevent mobilisation and runoff of any materials into the watercourse.
- Any pumping which may be required from excavations will be tested for contamination. The Contractor will engage with NRW to confirm the appropriate method for disposal and whether Regulatory Position Statement (RPS) 261 (Temporary dewatering from excavations to surface water) applies.
- Drill fluids will be removed by a vacuum tanker and disposed of by a licensed carrier.
- Sands Café car park, Duke of Edinburgh Inn car park and Newsurf shop car park are located within areas identified as being at risk of flooding from surface water, Brandy Brook and the sea. BRM will observe water levels in Brandy Brook during periods of heavy rainfall, routinely check the MET office Weather Warnings and Natural Resources Wales Flood Warnings and Flood Alerts, and will sign up to the NRW flood warning service. The working area will be designed to be flood resistant or flood resilient to minimise the risk of potential pollution of water bodies from any oils, substances, stockpiles or any other materials, to be detailed in a Flood Response Plan (or similar).



Marine Activities

1.1.22 For the Marine Activities, the Contractor (OCU) have specified embedded mitigation measures in the Method Statement and Risk Assessment document (OCU, 2025) to reduce potentially negative impacts on the environment. These include:

- All environmental incidents will be reported and handled in accordance with the Client Environmental Project requirements and internally with OCU incident management process. Incidents will be reported to the Project Manager and Environmental Adviser as required, and an Environmental Incident and Non-conformance Report Form will be completed. All client requirements with respect to reporting of incidents will be complied with where applicable.
- Waste will be handled in accordance with the OCU Group procedure OCU-SUS-S3-PRO10 (included within the licence application) and any special requirements specified in the Client Environmental Management Plan.
- No fuelling within 8 m of a watercourse or water body (extended to 10 m wherever possible).
- All environmental and ecological consents will be complied with throughout the duration of the works.
- All dug materials must be separated and stored in such a way to minimise sediment loss and stored at least 10m from any watercourse and outside of any area of flood risk (as far as practical).
- Any fuel bowser must be located/kept at the main site at >10m from any watercourse and will have a drip tray stored below which will be used to prevent ground contamination. It must be sited on an impermeable base, and within a bunded tank or other such container that can hold 110% of the fuel tank capacity.
- Small plant will to be used will be on drip trays/spill nappies.
- Small plant to be re-fuelled in the main yard and any larger plant must be moved away (by at least 10 m or greater if possible) from any water courses or drainage ditches prior to being re-fuelled to prevent contamination.
- Silt fencing (or similar) will be installed surrounding any excavated material or other stockpiles to prevent mobilisation and runoff of any materials into the watercourse.
- Drill fluids will be removed by a vacuum tanker and disposed of by a licensed carrier.
- Any pumping which may be required from excavations will be tested for contamination. The Contractor will engage with NRW to confirm the appropriate method for disposal and whether Regulatory Position Statement (RPS) 261 (Temporary dewatering from excavations to surface water) applies.
- Plant will be inspected visually daily; all plant will have spill kits with additional spill kits kept on site.
- All spillages shall be dealt with in accordance with the Pollution Prevention Procedure (PPP) and follow the steps; Stop, Contain, Divert, Contact and Disposal.



- The Newsurf shop carpark are located within areas identified as being at risk of flooding from surface water, Brandy Brook and the sea. OCU will observe water levels in Brandy Brook during periods of heavy rainfall, routinely check the MET office Weather Warnings and NRW Flood Warnings and Flood Alerts, and will sign up to the NRW flood warning service. The working area will be designed to be flood resistant or flood resilient to minimise the risk of potential pollution of water bodies from any oils, substances, stockpiles or any other materials, to be detailed in a Flood Response Plan (or similar).



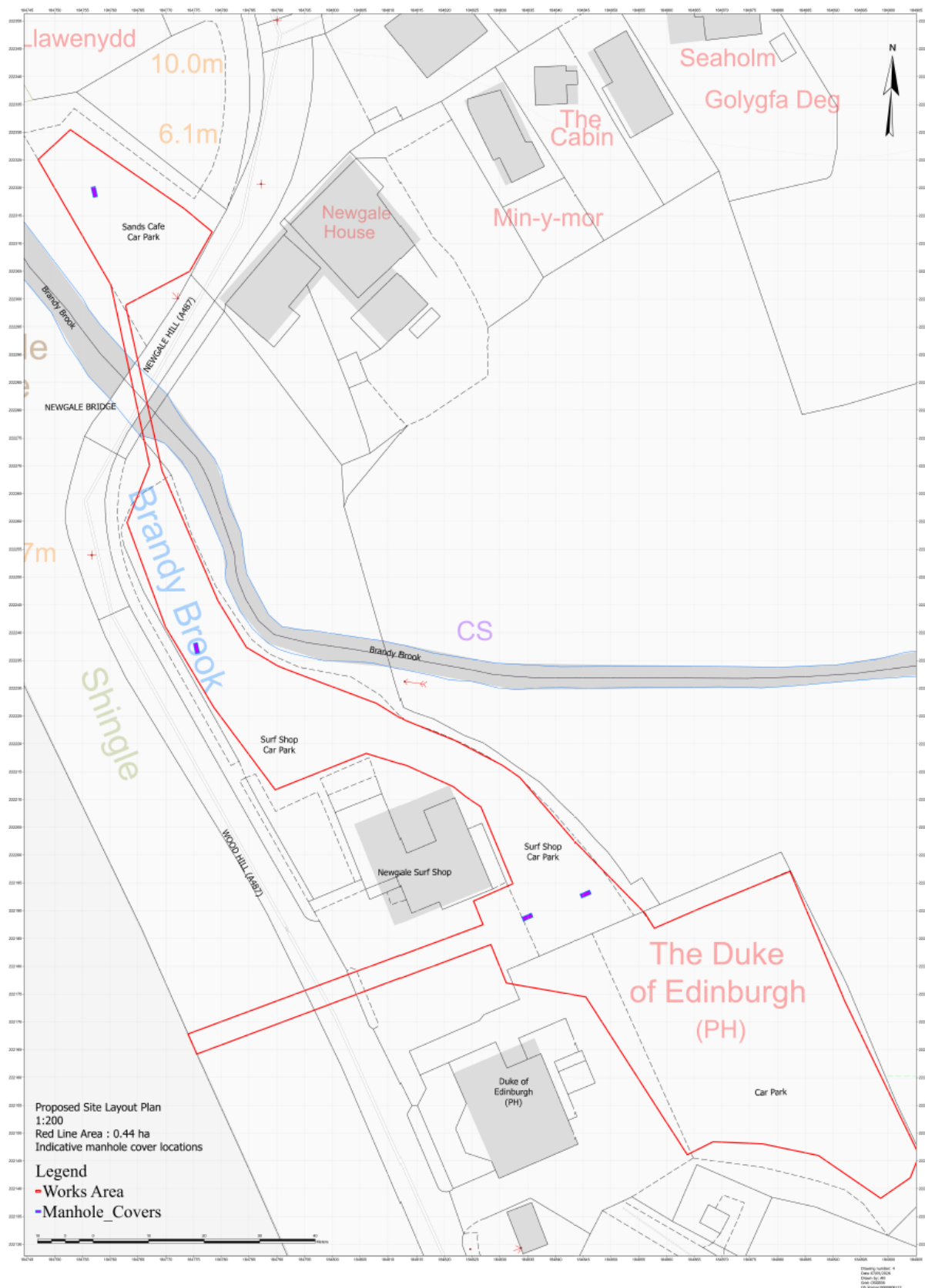


Figure 1-2: Red line boundary for the Newgale HDD and excavation works



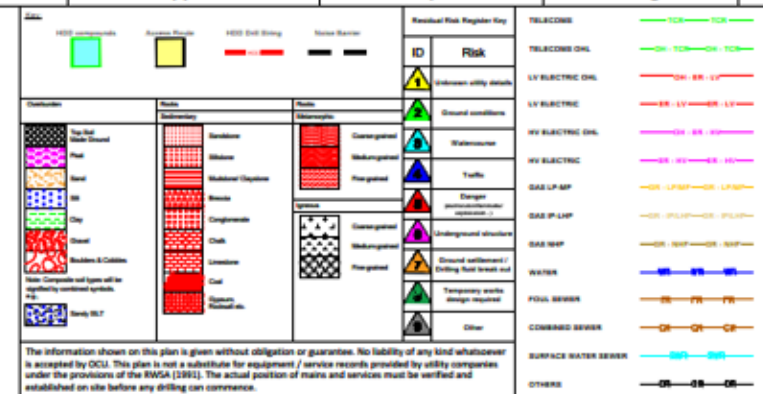


Figure 1-3 Onshore component of Marine HDD (including part of Marine HDD line).



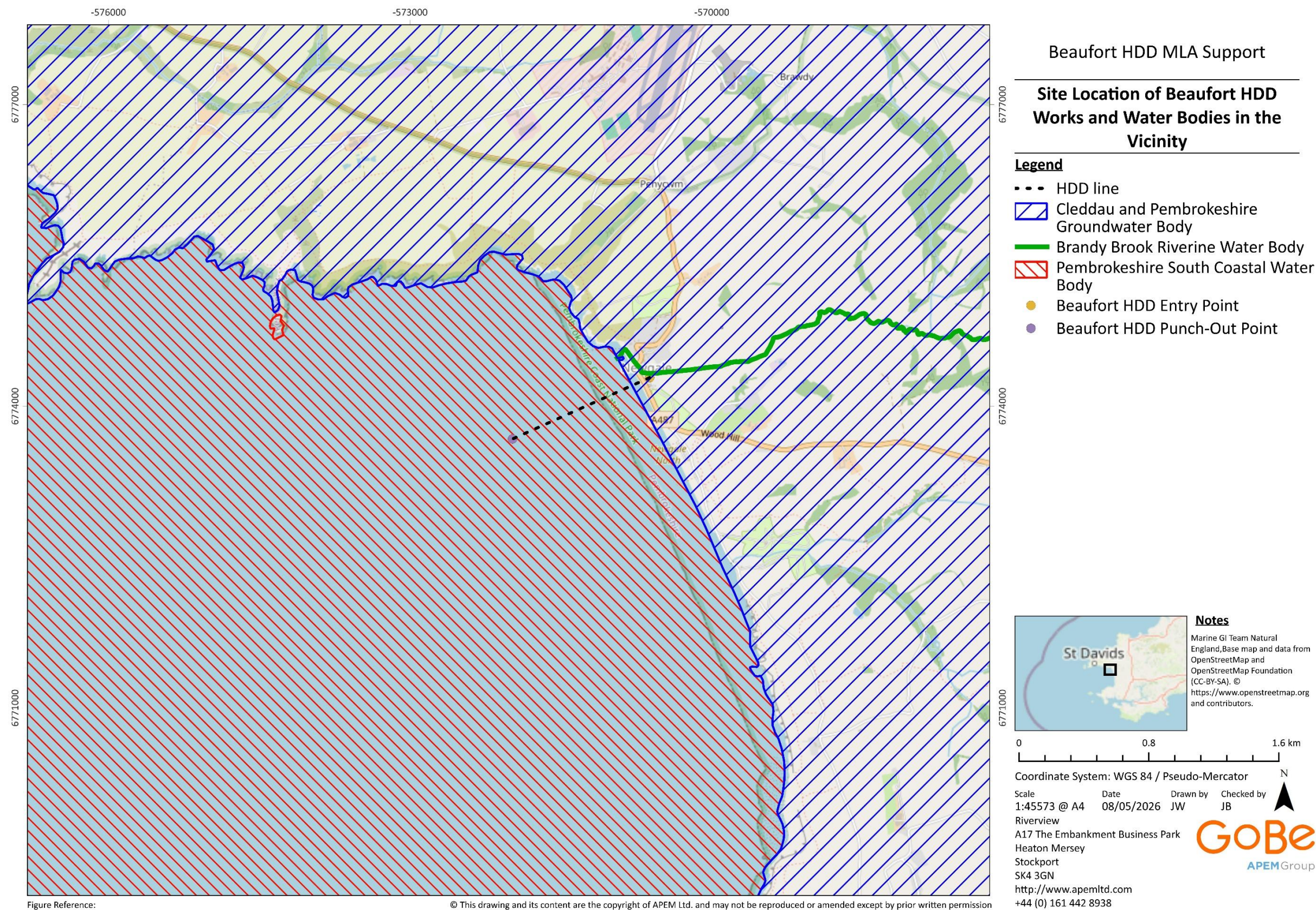


Figure 1-4 Marine HDD line and WFD water bodies



2 Policy and Legislative Context

2.1 Water Framework Directive

- 2.1.1 The European Union (EU) WFD (2000/60/EC) (hereafter referred to as the Directive) was established in 2000 in order to provide a single framework for the protection of surface water bodies (including rivers, lakes, transitional and coastal water bodies) and groundwater. Each water body has an assigned ecological status (in five categories from High to Bad) which is assigned by considering the biological, hydromorphological and chemical characteristics of the water body. The Directive is implemented across England and Wales through the Water Environment Regulations (2003). These Regulations were revoked in April 2017 by the Water Environment (Water Framework Directive (England and Wales) Regulations 2017. The different ecological status categories are:
- High;
 - Good;
 - Moderate;
 - Poor; and
 - Bad.
- 2.1.2 NRW is currently aiming to achieve 'good status' in as many waters as possible by 2027. For surface water bodies, 'Good status' comprises of two parts – the first is 'good ecological status' (GES) (or 'good ecological potential', for water bodies classed as heavily modified or artificial), and the second is 'good chemical status'. 'GES/potential' includes biological, hydromorphological and physicochemical quality elements and specific pollutants, whereas 'good chemical status' concerns a series of priority substances (including priority hazardous substances) and 'other pollutants'. For groundwater, 'Good status' also comprises two parts – the first is 'good quantitative status' and the second is 'good chemical status'; both of these include for tests which consider the quantity and quality of the groundwater body for Groundwater Dependent Terrestrial Ecosystems (GWDTEs), Groundwater-Surface Water (GWSW) interaction, Saline Intrusion (SI) and longer term trends.
- 2.1.3 The Directive also requires that relevant protected area objectives are achieved (NRW, 2025).
- 2.1.4 The current WFD status, the pressures affecting the water environment, the objectives for protecting and improving it, and the programme of measures needed to achieve the statutory environmental objectives of the WFD for each water body were initially set out in the 2015 River Basin Management Plans (RBMPs). There are three RBMPs which cover watercourses and coastal water bodies in and Wales. The proposed works are located within the Western Wales (NRW, 2022) which has been reviewed to inform this assessment. This assessment aims to ensure that the proposed works comply with the requirements under the WFD which seeks to ensure there is no deterioration in quality (as presented in the Western Wales RBMP) of the protected areas and water bodies.



- 2.1.5 The RBMPs are reviewed and updated every six years in Wales. The most recent review of the RBMPs was undertaken in 2022 (NRW, 2022), which sets out the current state and pressures affecting the water environment, environmental objectives for protection and improvement of waters, as well as the measures and actions needed to achieve the objectives.
- 2.1.6 Monitoring of the aquatic environment in relation to physical, chemical, and biological parameters started in 2006 with a view to ensuring a 'good ecological status' of all surface water bodies. Chemical, biological and hydromorphological environmental quality 'standards' (EQS) and indicators are used, and a programme of measures is implemented in order to improve surface waters that do not meet the required status.
- 2.1.7 The Directives' objective of 'good chemical status' is defined in terms of compliance with all the quality standards, within the water body, as established for chemical substances at a European level. The Directive also provides a process for renewing these standards and establishing new ones by means of a prioritisation mechanism for hazardous chemicals. This will ensure at least a minimum chemical quality, particularly in relation to very toxic substances.
- 2.1.8 The Directives' objective of GES also requires certain chemical conditions. The chemical requirements include the achievement of environmental quality objectives for discharged priority substances. It also identifies any other substances liable to cause pollution or being discharged in significant quantities. The Environmental Quality Standards Directive (EQSD) list¹ identifies priority substances and polluting chemical which should be considered in WFD assessments for surface water bodies. The Directive and EQSD seek to reduce these substances entering the water bodies, primarily from discharges and outfalls. Priority substances include, but are not limited to benzene, nickel, and lead.

2.2 WFD Regulations

- 2.2.1 The UK left the European Union (EU) on 31 January 2020 (referred to as 'Brexit') and entered a period of transition that ended on 31 December 2020. The transition period is defined in the UK EU Withdrawal Act 2018 and the UK EU (Withdrawal Agreement) Act 2020 which transposed EU law into UK domestic law. References to Directives mean the Directive as applied in UK law by the Withdrawal Acts. Following Brexit, existing EU environmental legislation will continue to operate under the policy of "roll-over", however, decisions made by the EU will no longer be binding for courts in the UK.
- 2.2.2 The Water Environment (Water Framework Directive) (England & Wales) Regulations 2017 revoke and replace the Water Environmental (Water Framework Directive) (England & Wales) Regulations 2003, which transposed the Water Framework Directive 2000/60/EC ("the WFD"). The Regulations provide a framework for managing the water environment in England and Wales.

¹ <https://www.gov.uk/government/publications/list-of-chemicals-for-water-framework-directive-assessments/environmental-quality-standards-directive-eqsd-list-for-wfd-assessments>



2.3 Requirement to Consider the WFD

- 2.3.1 In Wales, the Directive sits under the Environment (Wales) Act 2016 and the Well-being of Future Generations (Wales) Act 2015. Consideration of the Directive is required for any plan or project that may impact WFD water bodies. The Secretary of State (SoS), NRW and other public bodies have a specific duty to have regard to the relevant RBMPs in exercising their functions, including the determinations of applications under the Environment (Wales) Act 2016.
- 2.3.2 This WFD assessment has been prepared to provide information on the potential for the Project to cause deterioration within estuarine and coastal water bodies (including the ecological and chemical status of a water bodies) or the potential to compromise improvements which might otherwise lead to a water body meeting its Directive objectives.

2.4 WFD Protected Areas

- 2.4.1 Under the WFD, member states are required to establish a register of protected areas. Protected areas for the purposes of WFD include:
- Special Areas of Conservation (SACs);
 - Special Protection Areas (SPAs);
 - Ramsar sites;
 - Bathing Waters;
 - Shellfish Waters;
 - Nutrient-sensitive areas, including areas identified as Nitrate Vulnerable Zones (NVZs) under the Nitrates Directive or areas designated as sensitive under Urban Wastewater Treatment Directive (UWWTD);
 - Relevant National Site Network sites; and
 - Drinking Water Protected Areas.



3 Assessment Methodology

- 3.1.1 Works that may affect surface water and groundwater bodies must comply with the requirements of the WFD, and a compliance assessment must be carried out demonstrating that the Project will not lead to deterioration in water body status. Alongside this, all practicable steps should be taken to prevent any future deterioration of the status of waters as a result of the project.
- 3.1.2 This WFD assessment focuses on those elements of the Project relevant to the onshore, offshore and coastal areas required to be assessed against the objectives for each relevant WFD water body. The Welsh guidance note from NRW has been used for the purposes of this assessment (Complying with the WFD Regulations 2017 GN078 (NRW, 2024)).
- 3.1.3 A WFD assessment can comprise up to three stages, with the need to undertake latter stages dependent on the outcomes of the preceding stages. These three stages are:
- Screening – This stage identifies the receptors that could be impacted by the proposed works. Any activities that do not need further assessment can be screened out at this stage. Any activities with the potential for impact to the water environment will be screened in for further assessment;
 - Scoping – The receptors that are potentially at risk from a proposal are identified and carried forward for further detailed assessment in stage 3. If no receptors are identified, the WFD assessment is complete; and
 - Impact Assessment – Considers the potential impacts (for example, extent and severity) of an activity on the receptors identified in Stage 2, and identify ways to avoid, minimise or mitigate these impacts. Conclude whether the activity may prevent the water body and any protected areas from achieving their objectives, or cause deterioration in water body status.
- 3.1.4 In instances where the potential for deterioration of water bodies is identified in the impact assessment and mitigation is not possible to limit impacts to avoid deterioration, the proposed works would need to be assessed against the criteria set out in Article 4.7 of the WFD.

3.2 WFD Risk Screening

- 3.2.1 To undertake a WFD risk screening, project proponents should assess the project against the following:
- Identify whether the proposed activities are within or could impact a water body with high overall status or high status for morphology/hydromorphology; if so, a detailed assessment is required and NRW should be consulted.
 - Identify whether the proposed activities are listed as low risk; if not, a Stage 2 scoping assessment is completed for each relevant water body.
 - Identify whether there are any potential in combination or cumulative impacts from existing pressures (on water body status) or other new activities.
- 3.2.2 According to the 'Complying with the WFD Regulations 2017: screening GN078' guidance (NRW, 2024) projects can be screened out that are deemed to a low-risk activity. Low-risk activities include:



- In relation to discharges to water, any Environmental Permitting Regulations (EPR) registered exemption or standard rules permit;
- Main river activities that are exempt or excluded from NRW Flood Risk Activity Permits²; and
- Marine licensing Band 1 activities³.

3.3 Water Framework Directive Scoping

3.3.1 The scoping stage follows the source-pathway-receptor approach to identify whether the proposed activities can cause impact to the water environment, how the activities can cause an impact and those elements of the water environment, or 'receptors', that are potentially at risk from the activities of the proposed works and, therefore, may need to be subject to an impact assessment. At the scoping stage, it is necessary to identify all potential risks to each receptor associated with the proposed works. NRW (2024) guidance defines the receptors as:

- Hydromorphology;
- Water quality;
- Biology;
- Biology;
- Fish;
- Habitats (in transitional and coastal water bodies);
- Invasive non-native species;
- Groundwater; and
- Protected Areas.

3.4 Water Framework Directive Impact Assessment

3.4.1 Following the scoping stage, if it is determined that the impact assessment stage is required, (such as when a receptor cannot be scoped out), NRW (2024) guidance sets out that an impact assessment should be undertaken for each receptor identified as being at risk from the activity. The impact assessment should consider what (if any) pressures the activity may create on the water environment and specifically the water bodies identified. The key aim of the impact assessment is to determine whether there is potential for deterioration in the status of the water body.

² <https://naturalresources.wales/permits-and-permissions/flood-risk-activity-permits/environmental-permits-for-flood-risk-activities/?lang=en>

³ <https://naturalresources.wales/permits-and-permissions/marine-licensing/marine-licensing-band-1-low-risk-activities/?lang=en>



4 Relevant Water Bodies

4.1 Identification of Water Bodies

- 4.1.1 As required under the G078 (NRW, 2024) guidance, water bodies are identified based on whether the proposed works may have an impact on the immediate as well as any linked water bodies.
- 4.1.2 The Project has the potential to directly impact the following water bodies:
- Pembrokeshire South coastal water body (HDD Exit Point);
 - Brandy Brook riverine water body; and
 - Cleddau and Pembrokeshire Groundwater water body.
- 4.1.3 Due to the very small nature of the Project and resulting potential impacts, only the immediate water bodies are considered within this assessment. Figure 1-4 presents the location of the Pembrokeshire South coastal water body and the Brandy Brook Riverine water body in relation to the location of the Project. The Cleddau and Pembrokeshire Groundwater water body underlies the entire onshore component of the Project.



Water Bodies

4.1.4 A summary of the water bodies is provided in Table 4-1.

Table 4-1 Summary of the Pembrokeshire South Coastal Water Body, Brandy Brook Riverine Water Body and Cleddau and Pembrokeshire Groundwater Water Body (Water Watch Wales, 2024). Based on 2016-2021 Monitoring Data

Pembrokeshire South Coastal Water Body	
Water body ID	GB611008590003
River basin district name	Western Wales
Local Authority	Pembrokeshire
Water body type	Coastal
Ecological Status or Potential	Good
Biological Status or Potential	Good
Phytoplankton Status or Potential	High
Invertebrate Status or Potential	Good
Hydromorphological Conditions	High
Dissolved Oxygen	High
Nutrient Conditions	High
Specific Pollutants Conditions	Not Assessed
Chemical Surface Water Status	High
Heavily Modified	No - Natural
Identified as 'at risk'?	Unknown
Brandy Brook Riverine Water Body	
Water body ID	GB110061031160
River basin district name	Western Wales
Local Authority	Pembrokeshire
Water body type	River
Ecological Status or Potential	Moderate
Biological Status or Potential	Moderate
Phytoplankton Status or Potential	High
Invertebrate Status or Potential	High
Hydromorphological Conditions	Not High
Dissolved Oxygen	High
Nutrient Conditions	High
Specific Pollutants Conditions	Moderate



Chemical Surface Water Status	High
Heavily Modified	No - Natural
Identified as 'at risk'?	Unknown
Cleddau and Pembrokeshire Groundwater Water Body	
Water body ID	GB41002G200400
River basin district name	Western Wales
Local Authority	Pembrokeshire
Water body type	Groundwater
Groundwater quantity	Good
GWDTE abstraction status	Good
GWSW abstraction status	Good
Saline Intrusion abstraction status	Good
Water Balance abstraction status	Good
Groundwater chemical status	Poor
Drinking Water Protected Area status	Good
General Chemical Test	Good
GWDTE chemical status	Poor
GWSW chemical status	Good
Saline Intrusion chemical status	Good



5 WFD Screening

- 5.1.1 The activities associated with the Project were screened against the list of low-risk activities identified under the NRW guidance (NRW 2024). It was concluded that they do not qualify as low-risk activities and, accordingly, they were taken forward to Scoping (Section 6).



6 Scoping

- 6.1.1 The activities associated with the Project were screened against the list of low-risk activities identified under the NRW guidance (2024). It was concluded that they do not qualify as low-risk activities and, accordingly, they were taken forward to Scoping. The completed scoping template for the Project is provided in Appendix 1.
- 6.1.2 As indicated in the Scoping template, only the following WFD quality elements were taken forward to the impact assessment stage:
- Water Quality
 - Protected Sites:
 - Five Protected Areas are within 2 km of the Project:
 - Three SACs: Pembrokeshire Marine/ Sir Benfro Forol SAC, St Davids/Ty Ddewi SAC and West Wales Marine/Gorllewin Cymru Forol SAC;
 - One SPA: Ramsey and St Davids Peninsula Coast SPA/; and
 - One designated bathing water: Newgale.
- 6.1.3 All other receptors have been scoped out of the assessment. Justifications are provided in Appendix 1. Figure 6-1 and Figure 6-2 below illustrate the proximity of the works in relation to designated sites and various benthic habitats respectively.



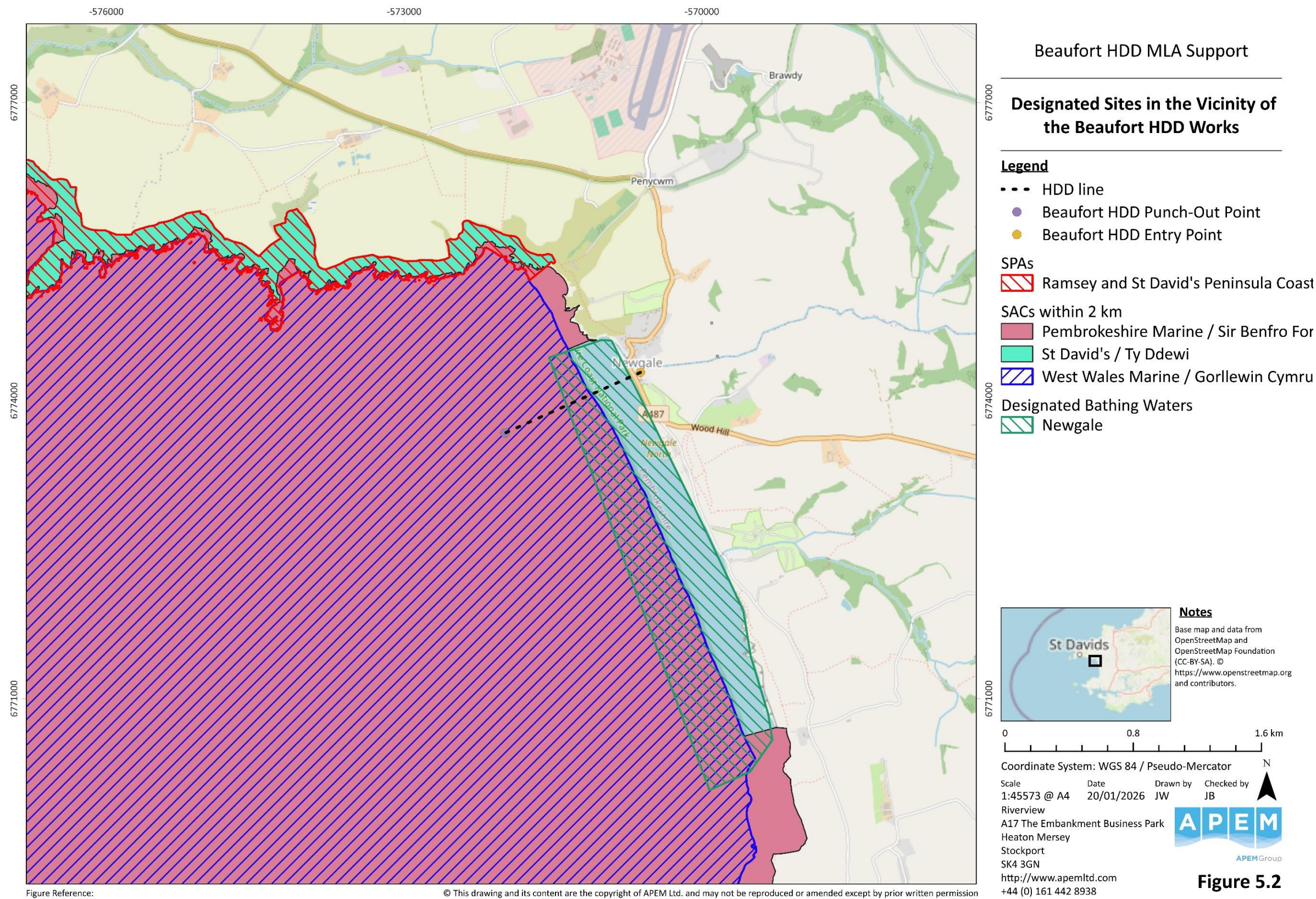
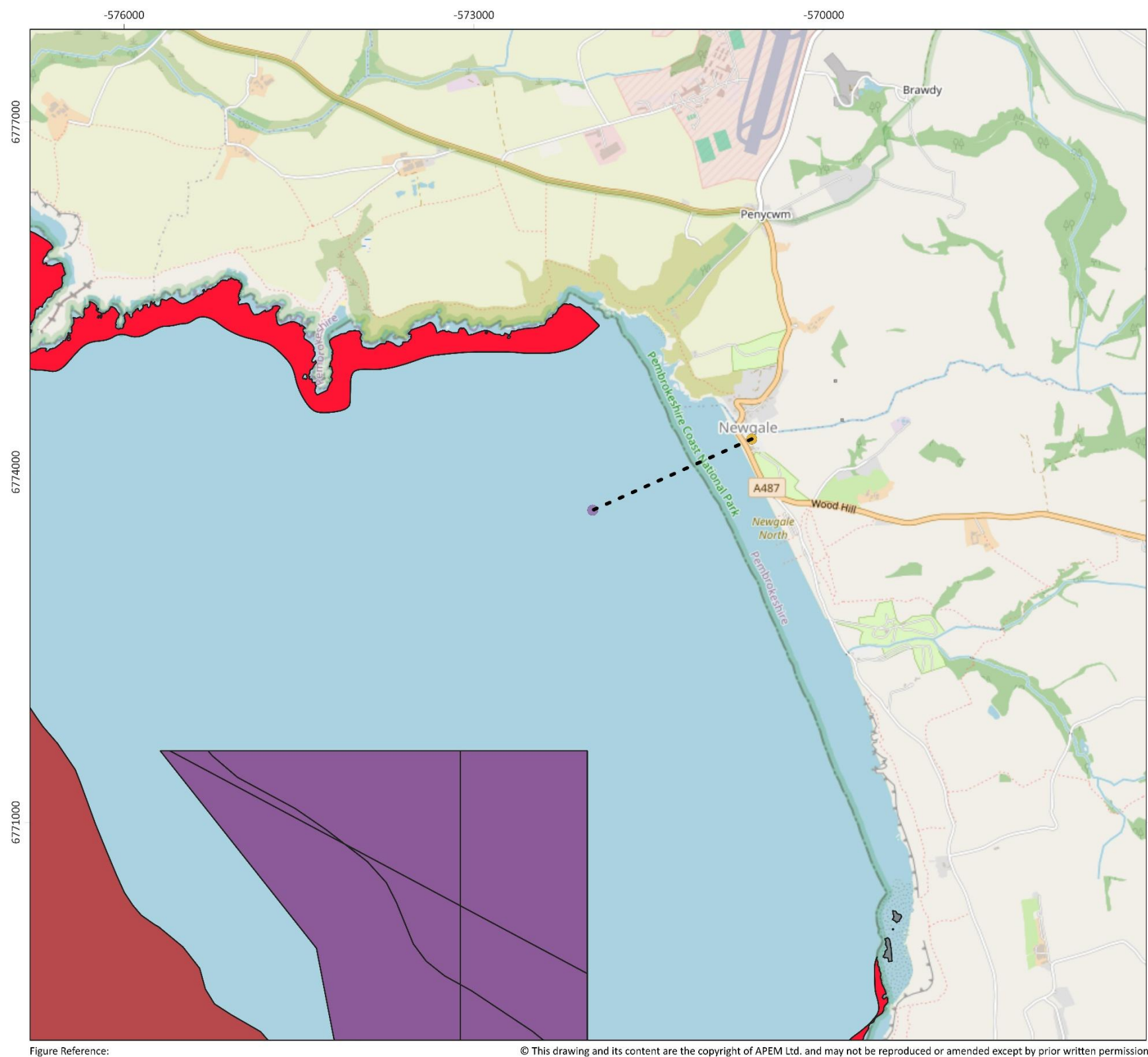


Figure 6-1 Designated sites in the vicinity of the Marine HDD works





Beaufort HDD MLA Support

Benthic Habitats in the Vicinity of
the Beaufort HDD Works

Legend

- - - HDD line
- Beaufort HDD Punch-Out Point
- Beaufort HDD Entry Point
- Deep water Mud
- Mixed Muddy Sediments
- Intertidal Boulders
- Subtidal Reefs



Notes
Base map and data from
OpenStreetMap and
OpenStreetMap Foundation
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<https://www.openstreetmap.org>
and contributors.

Coordinate System: WGS 84 / Pseudo-Mercator
Scale 1:45573 @ A4 Date 16/01/2026 Drawn by JW Checked by JB
Riverview
A17 The Embankment Business Park
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Figure 5.2

Figure 6-2 Benthic habitats in the vicinity of the Marine HDD works



7 Impact Assessment

7.1 Water Quality

- 7.1.1 Given the proximity of both the Onshore Activities and the Marine Activities to the Brandy Brook WFD water body, which also provides a direct pathway to the Pembrokeshire South coastal WFD water body, water quality is scoped into the assessment.
- 7.1.2 The key potential impacts to water quality from these activities are from the mobilisation of sediment-laden runoff and accidental spillage of fuels, oils, cementitious materials, bentonite, or other such polluting substances into the Brandy Brook WFD water body, which then would flow downstream into the Pembrokeshire South coastal WFD water body.
- 7.1.3 However, as outlined in Section 1.3, mitigation measures, in-line with best practice guidance from CIRIA and Guidance for Pollution Prevention have been embedded into the construction methods for both the Onshore Activities and the Marine Activities, such that the likelihood of occurrence of these potential impacts is considered to be very low.
- 7.1.4 In addition, there will be short-term impacts at the drill Exit Point resulting in a direct pathway the Pembrokeshire South coastal WFD water body when the drill breaches the surface of the seabed and the clump weight (160 cm x 116 cm surface area) is attached, however this will not be continuous. This will include small, localised increases in SSC and associated bentonite, which is also a fine particle. As the potential impacts are short-term and temporary, no long-term changes to water clarity, thermal conditions, oxygen levels, nutrients, microbial patterns or salinity/conductivity are expected.
- 7.1.5 As such, it is concluded that there are not expected to be any non-temporary effects on the water quality element at water body level and the HDD activities would not prevent the Brandy Brook river water body and Pembrokeshire South coastal water body from meeting their WFD objectives in terms of ecological or chemical status.

7.2 Protected Areas

- 7.2.1 The Pembrokeshire South Coastal Waterbody overlaps several designated sites, to which the potential for impacts is assessed below. The Brandy Brook riverine waterbody does not overlap with any designated sites.

Newgale Bathing Water

- 7.2.2 The Project overlaps with the Newgale Bathing Water, therefore, there is potential for the Project to impact the integrity of the Bathing Water. However, the proposed construction works are scheduled outside of the bathing season (Autum/Winter) and are not expected to lead to any water quality impacts.



- 7.2.3 There will be a short-term impact at the drill Exit Point when the drill breaches the surface of the seabed and the clump weight is attached, however this will not be continuous. This will result in minor increases in Suspended Sediment Concentration (SSC) and associated bentonite (a non-pollutant drilling fluid used for lubrication). Any potential impacts are short-term and temporary, and will not result in long-term changes to water clarity, thermal conditions, oxygen levels, nutrients, microbial patterns or salinity/conductivity are expected.
- 7.2.4 As such, it is concluded that the Project will not have an impact on the Bathing Water at Newgale, and would not affect the attainment of WFD objectives.

Pembrokeshire Marine/ Sir Benfro Forol SAC

- 7.2.5 The Pembrokeshire marine/ Sir Benfro Forol SAC is 0 km from the Site at its closest point. The potential for the Project to have a significant impact on designated sites, including the Pembrokeshire Marine SAC has been considered within the Habitat Regulation Assessment report (GoBe, 2026).
- 7.2.6 The result of the assessment for the potential for the Project to impact all Natura 2000 sites in the vicinity of the Site, including the Pembrokeshire Marine/ Sir Benfro Forol SAC, concluded no Likely Significant Effect. As such, it is concluded that the Project will not have an impact on the SAC Protected WFD Site of the Pembrokeshire South Coastal water body and would not affect the attainment of WFD objectives.

West Wales/ Gorllewin Cymru Forol SAC

- 7.2.7 The West Wales/ Gorllewin Cymru Forol SAC is 0 km from the Site. The potential for the Project to have a significant impact on designated sites, including the West Wales/ Gorllewin Cymru Forol SAC has been considered within the Habitat Regulation Assessment report (GoBe, 2026).
- 7.2.8 The result of the assessment for the potential for the Project to impact all Natura 2000 sites in the vicinity of the Site, including the West Wales SAC/ Gorllewin Cymru Forol SAC, concluded no Likely Significant Effect. As such it is concluded that the Project will not have an impact on the SAC Protected WFD Site of the Pembrokeshire South Coastal water body and would not affect the attainment of WFD objectives.

Ramsey and St Davids Peninsula Coast SPA

- 7.2.9 Ramsey and St Davids Peninsula Coast SPA is approximately 960 m from the punch out point of the HDD line. The potential for any adverse impact on this site and the features for which it is designated have been considered in the HRA which accompanies this assessment in the marine licence application. The HRA concluded no likely significant effect and as such it is concluded that the Project will not have an impact on this protected site of the Pembrokeshire South Coastal water body.



8 Conclusions

8.1.1 This WFD assessment has considered the potential effects of the Project to ensure that the associated activities will not result in (or contribute to) a deterioration in the status of any WFD water bodies or jeopardise the attainment of 'Good' status in the future.

8.1.2 The conclusions of the different elements of the WFD assessment are summarised in Table 8-1.

Table 8-1 WFD Assessment Conclusions Regarding the Proposed Works

Receptor	WFD Assessment Conclusion
Pembrokeshire South Coastal Water Body	
Hydromorphology	No deterioration in the status of any of the WFD water bodies are predicted.
Biology: Habitats	No deterioration in the status of any of the WFD water bodies are predicted
Biology: Fish	No deterioration in the status of any of the WFD water bodies are predicted
Water Quality	No deterioration in the status of any of the WFD water bodies are predicted
Protected Areas	No deterioration in the status of any of the WFD water bodies are predicted
INNS	No deterioration in the status of any of the WFD water bodies are predicted
Brandy Brook Riverine Water Body	
Hydromorphology	No deterioration in the status of any of the WFD water bodies are predicted.
Biology: Habitats	No deterioration in the status of any of the WFD water bodies are predicted
Biology: Fish	No deterioration in the status of any of the WFD water bodies are predicted
Water Quality	No deterioration in the status of any of the WFD water bodies are predicted
Protected Areas	No deterioration in the status of any of the WFD water bodies are predicted
INNS	No deterioration in the status of any of the WFD water bodies are predicted



9 References

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European Parliament and Council of the European Union (2006a) Directive 2006/7/EC concerning the management of bathing water quality and repealing Directive 76/160/EEC. Available online at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32006L0007> (Accessed: January 2026)

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OCU Utility Services (2025) OCU-HS-S1-FRM-035 Method statement and Risk Assessment – Newgale v2.



WFD Compliance Assessment of Beaufort HDD works

Stage 1: Screening Assessment

Stage 1 step 1: proposal details.



Project reference number	
Proposal	The Onshore HDD and duct works involves the installation of three underground chambers and installation of four 63 mm High-Density Polyethylene (HDPE) sub-ducts, which will be laid in a 2 x 2 configuration inside a 200 mm wide trench. The trench will be dug using an excavator, and sand will be placed into the dug trench to act as the bed. The Onshore HDD will begin from Sands Café car park (approx. NGR SM 84754 22326) and will proceed beneath Brandy Brook and exit within the Newsurf Shop car park. Here, two concrete chambers (Approx. 1.5 m deep and 1.12 m wide and 1.67 m long) will be installed on either end of the HDD. The final manhole (Approx. 3.4 m long, 2.5 m deep, 2.4 m wide) is constructed at the end of the marine HDD. As the drillstring passes beneath Brandy Brook, it will be roughly 4.5 m below the bed of Brandy Brook. The Onshore small HDD works are expected to commence in September 2026 and are anticipated to last approximately 34 days in total, including site mobilisation, construction, and demobilisation from site. The indicative drill launch area will be on land between the Newsurf Shop and Duke of Edinburgh Inn Car Park. All drill plant and equipment will be used on land, and the drill will exit on the seabed at a drilled length of 920 m from the launch site. A dive vessel will be mobilised to Exit Point and positioned next to the Punch-Out location. Divers will be deployed, and air bags will be attached to the Bottom Hole Assembly (BHA) sticking up out of the seabed. A foam pig will be pumped through the drill pipe to confirm any blockages for clearance. Then a marker buoy will be tied off to a clump weight at the exit point on the seabed.
List all permissions that may be required where known	N/A



Location (include map where appropriate)	The grid reference central point of the proposed activities is SM847221.
Estimated extent of footprint/impact of the works	The total footprint of the Project is less than 0.05 km ² and is less than 1% of the water body's area. Most of the Project's area is outside of any water body.
Supporting documents	OCU-HS-S1-FRM-035 Method Statement Risk Assessment - Newgale Rev1 BRM Utilities HDD Newgale Wales RAMS TMS - 001 - Duct-Exc-Reinstate RAMS for Newgale Front Haul Extension-V1
Environmental Statement	N/A
List ongoing maintenance requirements. All structures will require maintenance	N/A
Timing of works	The proposed construction works are expected to take place between 01 September 2026 and 01 November 2026. The proposed construction works are planned to be undertaken over a total duration of 57 operational days with works are expected to commence in September.
Name of the person completing the assessment	Ambar Villanueva-Brackley, Consultant
Date of assessment	08 May 2026



Stage 1, step 2: Collate baseline information on all water bodies at risk from the proposal.

Date of classification information: Cycle 3 2021 classification

Water body ID	Water body name	Water body type	HMWB	Overall water body status	Morphology status*	Relevance to the proposal
GB611008590003	Pembrokeshire South	Coastal	No	Good	High	Water body overlaps with the proposal
GB110061031160	Brandy Brook River	Riverine	No	Moderate	Not High	Water body overlaps with the proposal
GB41002G200400	Cleddau and Pembrokeshire	Groundwater	No	Poor	N/A	Water body overlaps with the proposal

The potential for the Project to affect the following water bodies was also initially considered, but can be ruled out without further consideration:

Clwyd (GB541006608000) – transitional water body located 5.8 km from the Site. There are no potential impacts based on the scale of the Project and the distance from the water body.



Stage 1, Step 3: Risk Screening - complete a risk screening table for each water body listed above that has **potential risk of impact from the proposal**

Water body name: Pembrokeshire South			
Water body ID: GB611008590003			
Question number	Risk screening questions	Name of activity	Screening decision – delete as appropriate
Q1.1	Is the proposal in a water body at high status or high status for morphology or hydromorphology?	N/A	No – The hydromorphology status of the Pembrokeshire South water body has not been classified.
Q1.2	Is the proposed activity listed a low risk activity? Complete new row for each activity	HDD works	No – Activity not listed within the NRW guidance as “low risk activity”.
Q1.3	Are there any potential cumulative/in combination impacts?		No – Cumulative and in-combination impacts have been considered within the Habitats Regulation Assessment (HRA) Document. No plans or projects were identified within 10 km.



Water body name: Brandy Brook			
Water body ID: GB110061031160			
Question number	Risk screening questions	Name of activity	Screening decision – delete as appropriate
Q1.1	Is the proposal in a water body at high status or high status for morphology or hydromorphology?	N/A	No – The overall status of Brandy Brook is Moderate and the hydromorphology status is classified as ‘Not High’.
Q1.2	Is the proposed activity listed a low-risk activity? Complete new row for each activity	HDD works	No – Activity not listed within the NRW guidance as “low risk activity”.
Q1.3	Are there any potential cumulative/in combination impacts?		No – Cumulative and in-combination impacts have been considered within the Habitats Regulation Assessment (HRA) Document. No plans or projects were identified within 10 km.

Water body name: Pembrokeshire and Cleddau			
Water body ID: GB41002G200400			
Question number	Risk screening questions	Name of activity	Screening decision – delete as appropriate
Q1.1	Is the proposal in a water body at high status or high status for morphology or hydromorphology?	N/A	No – The overall water body status of the Pembrokeshire and Cleddau Groundwater water body is Poor.



Water body name: Pembrokeshire and Cleddau			
Water body ID: GB41002G200400			
Question number	Risk screening questions	Name of activity	Screening decision – delete as appropriate
			Groundwater water bodies are not assessed for morphology as this status element is not applicable.
Q1.2	Is the proposed activity listed a low-risk activity? Complete new row for each activity	HDD works	No – Activity not listed within the NRW guidance as “low risk activity”.
Q1.3	Are there any potential cumulative/in combination impacts?		No – Cumulative and in-combination impacts have been considered within the Habitats Regulation Assessment (HRA) Document. No plans or projects were identified within 10 km.

As the activity is not listed as a “low risk activity”, a Stage 2 Scoping Assessment has been completed below.



Stage 2: Scoping Assessment

Stage 2, step 1 – Relate activity to receptors

Scoping table for Transitional and Coastal water bodies

Scoping table for Transitional and Coastal water bodies			
Water body name: Pembrokeshire South			
Water body ID: GB611008590003			
Elements	Applicable	Potential Impact (include direct and indirect potential impacts)	Avoidance measures included in the proposal
Transitional and Coastal water bodies	Choose one of the following: Direct – risk of direct impact Indirect – risk of indirect impact N/A – no impact pathway N/A – other – include additional text to explain	Further detail on potential impacts. Where N/A is included then provide detail to explain.	Briefly describe any measure included within the proposal at this point that will ensure the potential effects are avoided. Where impacts can be avoided through measures already included in the scheme then add Scoped Out . Or where further assessment is required add Scoped In



Scoping table for Transitional and Coastal water bodies			
Water body name: Pembrokeshire South			
Water body ID: GB611008590003			
Elements	Applicable	Potential Impact (include direct and indirect potential impacts)	Avoidance measures included in the proposal
Hydromorphology – hydromorphology constitutes both ‘hydrology’ and ‘geomorphology’ and describes the physical characteristics and processes of a water body. Could the proposal lead to changes in:			
morphological conditions, for example depth variation, the seabed and intertidal zone structure tidal patterns, for example, dominant currents freshwater flow wave exposure	Direct – risk of direct impact	Physical seabed disturbance	Scoped Out - All proposed works are temporary and small in scale. While the overall timeframe is classified as medium-term, the impact to the seabed will only occur when the drill reaches the Exit Point and breaches the surface which will be at the very end of the overall timeframe. Whilst the drill exit point will be permanent, it is not expected to result in any changes to hydromorphological conditions within wider marine area or the Pembrokeshire South water body. The Exit Point of the drill and clump weight (160 cm x 116 cm surface area) will have a low profile and not significantly protrude from the seabed (500 mm in height). The presence of the Project will not reduce the 6 m water depth of the exit point area,



Scoping table for Transitional and Coastal water bodies			
Water body name: Pembrokeshire South			
Water body ID: GB611008590003			
Elements	Applicable	Potential Impact (include direct and indirect potential impacts)	Avoidance measures included in the proposal
			therefore, will have a negligible impact on seabed morphology.
Is the proposal in a HMWB?	N/A - other	The Pembrokeshire South water body has not been designated as a heavily modified water body.	Scoped Out – The Project is not within a HNWB.



Water quality

An activity can modify the flow of water, introduce artificial materials or remove sediment and/or vegetation. These can all affect the water quality – particularly physico-chemical aspects of water quality - such as levels of dissolved oxygen, nutrients and ammonia.

Include water quality in the detailed assessment if the activity could affect:

water clarity (turbidity or suspended particulate matter concentration) thermal conditions (including shading) oxygen levels – dissolved oxygen conditions nutrients - dissolved inorganic nitrogen microbial patterns salinity/conductivity is in a water body with a phytoplankton or opportunistic macroalgae status of moderate, poor or bad is in a water body with a history of harmful algae (where there is an existing designation for the area, information should be available; however, local water quality officers will be able to help).	Direct – risk of direct impact	Physical seabed disturbance	Scoped In - There will be a short-term impacts at the drill Exit Point when the drill breaches the surface of the seabed and the clump weight (160 cm x 116 cm surface area) is attached, however this will not be continuous. This will include small, localised increases in SSC and associated bentonite, which is also a fine particle. As the potential impacts are short-term and temporary, no long-term changes to water clarity, thermal conditions, oxygen levels, nutrients, microbial patterns or salinity/conductivity are expected. The water body is classified as High for phytoplankton, however, the proposed drilling work will not introduce new nutrients or contaminants, and any temporary increase in suspended sediment will be negligible and highly localised to the seabed. No pathways exist for effects on phytoplankton, and no deterioration in status is anticipated. This water body does not have a history of harmful algae.
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	Indirect – risk of indirect impact	The excavation and HDD works are taking place directly adjacent to Brandy Brook, and there is potential for activities to generate sediment-laden runoff and/or a risk of accidental spills of fuels, oils, cementitious materials or bentonite to enter the water body via Brandy Brook.	Scoped In - A range of embedded (inherent) mitigation measures, in accordance with best practice pollution prevention are included in Section 1.3. Given the temporary nature of the works and the incorporation of these embedded (inherent) mitigation measures, no impacts to these elements are anticipated.
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Chemicals - A detailed assessment will also be required if the activity uses or releases chemicals, for example, through sediment disturbance or building works. This is necessary when either the:

chemicals are on the Environmental Quality Standards Directive (EQSD) list activity disturbs sediment with contaminants (for estuarine and coastal above Cefas Action Level 1). or, if the activity releases chemicals on the EQSD list and has a mixing zone, like a discharge pipeline or outfall, follow the Environment Agency's surface water pollution risk assessment guidance. This is part of the Environmental Permitting Regulations guidance.	Indirect – risk of indirect impact	Physical seabed disturbance	Scoped In - Bentonite drilling solution will be used during the drilling process. Chemicals on the EQSD list used within the Project could be derived from plant and equipment fuel. However, the ground-penetrating works will take place roughly 60 m from the water body itself and the following measures will be implemented to prevent any release of fuel into the water column: No refuelling within 30 m of a watercourse; Spill kits and spill kit bins will be available at the point of works; all spillages shall be dealt with in accordance with the Pollution Prevention Procedure and follow the steps; Stop, Contain, Divert, Contact and Disposal. The activity does not include a discharge pipe or outfall, and therefore no chemicals will be released into the marine environment.
--	--	------------------------------------	---



	Indirect – risk of indirect impact	The excavation and HDD works are taking place directly adjacent to Brandy Brook, and there is potential for activities to generate sediment-laden runoff and/or a risk of accidental spills of fuels, oils, cementitious materials or bentonite to enter the water body via Brandy Brook.	Scoped In - A range of embedded (inherent) mitigation measures, in accordance with best practice pollution prevention are included in Section 1.3. Given the temporary nature of the works and the incorporation of these embedded (inherent) mitigation measures, no impacts to these elements are anticipated.
Biology Identify if the activity or project could impact on the abundance or composition of the biological elements listed below: Biological elements for transitional (T) and coastal (C) waters under the directive are: Benthic invertebrates (T, C) Fish (T) Phytoplankton (T, C) Macroalgae (T, C) Angiosperms (T, C) Could the proposal lead to:			



• changes to the composition and abundance of aquatic flora • changes to the composition and abundance of benthic invertebrate fauna	Direct	Physical seabed disturbance	Scoped Out – The works are incredibly small scale, temporary and short-term. The punch out point does not overlap with any benthic habitats and the physical disturbance caused by the punch out point is very highly localised. No impacts to the abundance of aquatic or benthic flora or fauna are anticipated.
For TraC water bodies - scope in if the footprint (where footprint can be direct or a plume i.e. chemical or thermal; for dredging multiply the area by 1.5x) of your activity is:			
• 0.5km² or larger • 1% or more of the water body's area • Within 500m of any higher sensitivity habitat (see table below) • 1% or more of any lower sensitivity habitat (see table below)	Direct	Physical seabed disturbance	Scoped Out – The footprint is less than 0.5 km² and <1% of the water body's area. Total area of the entire drilling activities (including on land) is 0.066 km². Although the exact location of the drill Exit Point is not known, it will be within the designated works area located more than 500 m away from any higher sensitivity habitat. The lower sensitivity habitat within the Pembrokeshire South water body to be affected by the HDD works is predominantly expected to be 'subtidal soft sediments like sand and mud'. Given the widespread nature of 'subtidal soft sediments like sand and mud' within the Pembrokeshire South water body, and the activity will not exceed 1% of any lower sensitivity habitat.



Fish fauna (Transitional water bodies only): could the proposal lead to:			
• changes to the composition, abundance and age structure of fish fauna • an impact on normal fish behaviour like movement, migration or spawning (for example creating a physical barrier, noise, chemical change or a change in depth or flow) • entrainment or impingement of fish • refuge/predation areas Or: is the proposal in an estuary and could affect fish in the estuary; is outside the estuary but could delay or prevent fish entering it; or, could affect fish migrating through the estuary	Direct	Physical seabed disturbance and underwater noise	Scoped Out - The activity is not located within an estuary and is not likely to delay or prevent fish from entering or migrating through the Pembrokeshire South coastal water body and does not include the generation of significant noise or suspended sediments that could cause a barrier to fish movements. The Project does not include any potential for entrainment or impingement of fish.



Info for TraC water bodies

Extract from EA Clearing the water for All

Higher and lower sensitivity habitats for TraC water bodies

Higher sensitivity habitats ²	Lower sensitivity habitats ³
chalk reef	cobbles, gravel and shingle
clam, cockle and oyster beds	intertidal soft sediments like sand and mud
intertidal seagrass	rocky shore
maerl	subtidal boulder fields
mussel beds, including blue and horse mussel	subtidal rocky reef
polychaete reef	subtidal soft sediments like sand and mud
saltmarsh	
subtidal kelp beds	
subtidal seagrass	

² Higher sensitivity habitats have a low resistance to, and recovery rate, from human pressures.

³ Lower sensitivity habitats have a medium to high resistance to, and recovery rate from, human pressures.



Invasive Non-Native Species

Does your proposal have the potential to introduce or spread INNS?

No - The majority of works are sufficiently removed from the water body so as not to present a pathway for the introduction or spread of INNS. All equipment, materials and Personal Protective Equipment (PPE) used will be in a clean condition prior to their arrival on site, and upon removal from site, to minimise risk of introducing non-native species into the marine environment.

WFD Protected Areas

You must ensure that your proposal will not prevent any Protected Area/s from achieving their objectives. Include WFD protected areas in your assessment if your activity is within the zone of influence.

Yes - The 2 km buffer for the Project contains or overlaps with:

Two SACs: Pembrokeshire Marine/ Sir Benfro Forol SAC and West Wales Marine/Gorllewin Cymru Forol SAC

One SPA: Ramsey and St Davids Peninsula Coast SPA

One designated bathing water: Newgale

Pembrokeshire Marine/ Sir Benfro Forol SAC and West Wales Marine/Gorllewin Cymru Forol SAC are discussed in further detail within the HRA Document, which concluded that there is no potential for AEoI at any sites.

The Newgale bathing water overlaps with the HDD works and received a status of 'Excellent' in 2025 (the most recent classification year). The status of this bathing water was also 'Excellent' in 2024. It is recognised that increases in Suspended Sediment Concentration (SSC) have the potential to result in localised changes to bacterial abundance. Any increase in SSC (and potential bacterial contaminants) associated with the Project will be temporary, intermittent and highly reversible and deterioration of bathing water quality is unlikely.

No shellfish waters, Nutrient Sensitive Areas (under the Urban Wastewater Treatment Directive), Nitrate Vulnerable Zones (polluted or sensitive) or Drinking Water Protected Areas (Surface and Ground) are located within 2 km of the activity.

Other Protected and Priority habitats and species.

The HDD works will be located more than 500 m away from any higher sensitivity habitat, as defined by the 'Clearing the Waters for All' guidance. Therefore no significant effects are predicted on these habitats.



Scoping table for Rivers Water body name: Brandy Brook Water body ID: GB110061031160			
Elements	Applicable	Potential Impact (include direct and indirect potential impacts)	Avoidance measures included in the proposal
Rivers and Lake water bodies	Choose one of the following: Direct – risk of direct impact Indirect – risk of indirect impact N/A – no impact pathway N/A – other – include additional text to explain	Further detail on potential impacts. Where N/A is included then provide detail to explain.	Briefly describe any measure included within the proposal at this point that will ensure the potential effects are avoided. Where impacts can be avoided through measures already included in the scheme then add Scoped Out . Or where further assessment is required add Scoped In
Hydromorphology – hydromorphology constitutes both ‘hydrology’ and ‘geomorphology’ and describes the physical characteristics and processes of a water body. <i>Could the proposal lead to changes in:</i>			



Scoping table for Rivers Water body name: Brandy Brook Water body ID: GB110061031160			
Elements	Applicable	Potential Impact (include direct and indirect potential impacts)	Avoidance measures included in the proposal
- changes to flows, for example, changes to wetted width or depth profile - abstraction of water (changes to quality and dynamics of water flow) - changes the physical form including structure and substrate of the river/lake bed or connection to groundwater - or alter the process of sediment transport (erosion, deposition or transfer)	N/A – no impact pathway	The works involve drilling beneath Brandy Brook and will not directly interact with it. Although the works are in the functional floodplain of Brandy Brook, they are very small in scale relative to the floodplain and as such no effects on hydromorphology resulting from floodplain interaction are anticipated. As such, there is no impact pathway.	Scoped Out
Is the proposal in a HMWB?	N/A - other	Brandy Brook water body has not been designated as a heavily modified water body.	Scoped Out – The works are not within a HNWB.



Water quality An activity can modify the flow of water, introduce artificial materials or remove sediment and/or vegetation. These can all affect the water quality – particularly physico-chemical aspects of water quality - such as levels of dissolved oxygen, nutrients and ammonia. Include water quality in the detailed assessment if the activity could affect:			
water clarity (turbidity or suspended particulate matter concentration) thermal conditions (including shading) oxygen levels – dissolved oxygen conditions nutrients - dissolved inorganic nitrogen microbial patterns salinity/conductivity acidification status	Indirect – risk of indirect impact	The excavation and HDD works are taking place directly adjacent to Brandy Brook, and there is a potential for activities to generate sediment-laden runoff and/or a risk of accidental spills of fuels, oils, cementitious materials or bentonite entering the water body.	Scoped In - A range of embedded (inherent) mitigation measures, in accordance with best practice pollution prevention are included in Section 1.3. Given the temporary nature of the works and the incorporation of these embedded (inherent) mitigation measures, no impacts to these elements are anticipated.



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Chemicals - A detailed assessment will also be required if the activity uses or releases chemicals, for example, through sediment disturbance or building works. This is necessary when either the:

chemicals are on the Environmental Quality Standards Directive (EQSD) list activity disturbs sediment with contaminants (for estuarine and coastal above Cefas Action Level 1). or, if the activity releases chemicals on the EQSD list and has a mixing zone, like a discharge pipeline or outfall, follow the Environment Agency's surface water pollution risk assessment guidance. This is part of the Environmental Permitting Regulations guidance.	Indirect – risk of indirect impact	The excavation and HDD works are taking place directly adjacent to Brandy Brook, and there is a potential for activities to generate sediment-laden runoff and/or a risk of accidental spills of fuels, oils, cementitious materials or bentonite entering the water body.	Scoped In - A range of embedded (inherent) mitigation measures, in accordance with best practice pollution prevention are included in Section 1.3. Given the temporary nature of the works and the incorporation of these embedded (inherent) mitigation measures, no impacts to these elements are anticipated.
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Biology



Identify if the activity or project could impact on the abundance or composition of the biological elements listed below:

Biological elements for transitional (T) and coastal (C) waters under the directive are:

Benthic invertebrates (T, C)

Fish (T)

Phytoplankton (T, C)

Macroalgae (T, C)

Angiosperms (T, C)

Could the proposal lead to:

• changes to the composition and abundance of aquatic flora • changes to the composition and abundance of benthic invertebrate fauna	Indirect – risk of indirect impact	The excavation and HDD works are taking place directly adjacent to Brandy Brook, and there is a potential for activities to generate sediment-laden runoff and/or a risk of accidental spills of fuels, oils, cementitious materials or bentonite entering the water body.	Scoped Out - A range of embedded (inherent) mitigation measures, in accordance with best practice pollution prevention are included in Section 1.3. Given the temporary nature of the works and the incorporation of these embedded (inherent) mitigation measures, no impacts to these elements are anticipated.
• changes to the composition, abundance and age structure of fish fauna • an impact on normal fish behaviour like movement, migration or spawning (for example creating a	Indirect – risk of indirect impact	The excavation and HDD works are taking place directly adjacent to Brandy Brook, and there	Scoped Out - A range of embedded (inherent) mitigation measures, in accordance with best practice pollution prevention are included in Section 1.3.



physical barrier, noise, chemical change or a change in depth or flow) • entrainment or impingement of fish • Refuge/predation areas		is a potential for activities to generate sediment-laden runoff and/or a risk of accidental spills of fuels, oils, cementitious materials or bentonite entering the water body.	Given the temporary nature of the works and the incorporation of these embedded (inherent) mitigation measures, no impacts to these elements are anticipated.
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Invasive Non-Native Species

Does your proposal have the potential to introduce or spread INNS?

No - The majority of works are sufficiently removed from the water body so as not to present a pathway for the introduction or spread of INNS. All equipment, materials and Personal Protective Equipment (PPE) used will be in a clean condition prior to their arrival on site, and upon removal from site, to minimise risk of introducing non-native species into the marine environment.

WFD Protected Areas

You must ensure that your proposal will not prevent any Protected Area/s from achieving their objectives. Include WFD protected areas in your assessment if your activity is within the zone of influence.

Yes - The 2 km buffer for the Project contains or overlaps with:

Two SACs: Pembrokeshire Marine/ Sir Benfro Forol SAC and West Wales Marine/Gorllewin Cymru Forol SAC

One SPA: Ramsey and St Davids Peninsula Coast SPA

One designated bathing water: Newgale



Pembrokeshire Marine/ Sir Benfro Forol SAC and West Wales Marine/Gorllewin Cymru Forol SAC are discussed in further detail within the HRA Document, which concluded that there is no potential for AEoI at any sites.

The Newgale bathing water overlaps with the HDD works and received a status of 'Excellent' in 2025 (the most recent classification year). The status of this bathing water was also 'Excellent' in 2024. It is recognised that increases in Suspended Sediment Concentration (SSC) have the potential to result in localised changes to bacterial abundance. Any increase in SSC (and potential bacterial contaminants) associated with the Project will be temporary, intermittent and highly reversible and deterioration of bathing water quality is unlikely.

No shellfish waters, Nutrient Sensitive Areas (under the Urban Wastewater Treatment Directive), Nitrate Vulnerable Zones (polluted or sensitive) or Drinking Water Protected Areas (Surface and Ground) are located within 2 km of the activity.

Other Protected and Priority habitats and species.

The HDD works will be located more than 500 m away from any higher sensitivity habitat, as defined by the 'Clearing the Waters for All' guidance. Therefore no significant effects are predicted on these habitats.

Elements	Applicable	Potential Impact (include direct and indirect potential impacts)	Avoidance measures already included in the proposal
Groundwater	Choose one of the following: Direct – risk of direct impact Indirect – risk of indirect impact N/A – no impact pathway N/A – other – include additional text to explain	Further detail on potential impacts. Where N/A is included then provide detail to explain.	Briefly describe any measure included within the proposal at this point that will ensure the potential effects are avoided.



Elements	Applicable	Potential Impact (include direct and indirect potential impacts)	Avoidance measures already included in the proposal
			Where impacts can be avoided through measures already included in the scheme then add Scoped Out . Or where further assessment is required add Scoped In
Identify if the activity/project has the potential to impact on the quality or quantity of ground water. Hydrogeological regime: Could the proposal lead to:			
- a significant change to groundwater flows, for example, below ground structures which restricts or alters baseflow to dependent surface water or wetlands - abstraction of groundwater in large volumes or near sensitive locations - a significant change to groundwater chemistry due to inputs of pollutants to the ground over a large area - potential impact on ground water dependant terrestrial ecosystems e.g. wetlands	N/A – other	The works involve drilling into the groundwater body and directly interact with it. As such, there is a direct pathway for potential impacts to groundwater quality from drilling fluids, bentonite and the accidental spillage of materials on	Scoped Out - All proposed works are temporary and very small in scale relative to the size of the groundwater body, which is approx. 1115 km ² , therefore any effects on water body elements will be highly localised. In addition, a range of embedded (inherent) mitigation measures, in accordance with best practice pollution prevention are included in Section 1.3. Given the relative scale, temporary nature of the works and the incorporation of embedded (inherent)



Elements	Applicable	Potential Impact (include direct and indirect potential impacts)	Avoidance measures already included in the proposal
		the surface infiltrating to ground.	mitigation measures, no impacts to these elements are anticipated.



Summary of step 1 scoping

Q2.1 Is there a risk that a component of the proposal may cause deterioration of any element that makes up water body status?

NO

Stage 2, step 2: Summary of scoping decision of the project 'alone'

Q2.2 Is there a risk that a component of the proposal may prevent the water body or Protected Area from achieving its objectives in the future?

YES

Stage 2, step 3: Assessing potential in combination and/or cumulative impacts

Q2.3 Can the risk of deterioration or prevention of achieving water body objectives from in combination and or cumulative effects be ruled out?

YES - No projects were identified within 10 km of the proposed works.

Avoidance measures already included in the project

The following mitigation measures and environmental best practice will be adhered to throughout the Project to minimise risk to the marine environment:

All works will be conducted in accordance with the Client Environmental management plan and any specific environmental consents. The relevant material within those documents relating to the tasks will be briefed to the relevant personnel during this method statement briefing.

All environmental incidents will be reported and handled in accordance with the Client Environmental Project requirements and Internally with OCU Incident management process, Incidents will be reported to the Project Manager and Environmental Adviser as required, and an Environmental Incident and/ Non-conformance Report Form will be completed. All client requirements with respect to reporting of incidents will be complied with where applicable.



Waste will be handled in accordance with the OCU Group procedure OCU-SUS-S3-PRO10 and any special requirements specified in the Client Environmental Management Plan.

No fuelling within 30 m of a watercourse.

All Environmental and ecological consents will be complied with throughout the duration of the proposed construction works.

Spill kits and spill kit bins will be available at the point of works.

All spillages shall be dealt with in accordance with the Pollution Prevention Procedure and follow the steps; Stop, Contain, Divert, Contact and Disposal.

Best practice measures to reduce the risk of introducing INNS will be implemented, including:

All equipment, materials, machinery and PPE used as part of the proposed works will be cleaned immediately prior to arrival at and subsequent departure from the area of the proposed construction works.

Large vessels will be stored in water except for defouling and dry-docking. Vessels will not be slow moving between sites.

Vessel equipped with Ballast Water Treatment System (BWTS) installed according to classification regulation. BWTS designed to meet International Maritime Organization (IMO) guidelines for approval of ballast water management system and DNV standards.



Stage 2, Step 4: Overall scoping summary

Summarise if there a potential risk that your proposal may cause deterioration or prevent a water body from meeting its objectives either alone or in combination.

Scoping Assessment Completed by	Ambar Villanueva-Brackley	Date	19/12/2025
Scoping Assessment Reviewed by	Mark Uren	Date	15/05/2026
Document Reference		Version	

Consultation with NRW and any other regulatory/advisory organisation

Officer name and job title	Organisation	Date	Advice received
N/A	-	-	-

Supporting information and documents

Title of supporting documents / assessments / modelling
OCU-HS-S1-FRM-035 Method Statement Risk Assessment - Newgale Rev1
BRM Utilities HDD Newgale Wales RAMS
TMS - 001 - Duct-Exc-Reinstate RAMS for Newgale Front Haul Extension-V1





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