REPORT

Port of Dundee Capital Dredge and Improvement Works

Archaeological Assessment and Protocol for Archaeological Discoveries

Client:	Port of Dundee Limited
Reference:	PC6550-RHD-XX-XX-RP-EV-0062
Status:	Final/01
Date:	11 July 2025

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Table of Contents

Table of Figures

Appendices

1. Introduction

1.1. Project Background

The capital dredging works would be carried out as follows:

- Deepen the approach to DunEco Quay to -6m CD;
- Deepen the approach to the Prince Charles Wharf (PCW) to -6.5mCD;
- Widen the PCW berth pocket to 70m and deepen to -9m CD;
- Extend the PCW berth pocket (PCWE) 200m to the east and deepen to -10m CD; and
- Deepen a section of the Lady Shoal Approach Channel to -6.5m CD.

All dredging at the Port of Dundee, with the exception of a very small area in the south-west corner of the dredge footprint, is within the Port of Dundee Limited's licenced maintenance dredge area. The proposed dredging would generate approximately 60,000m^3 of material (105,000m^3 with an over-dredge allowance of 0.5m). The dredge depth would be between approximately 0.5m to 1m, and up to 2.5m within the berth pocket extension area. The dredge depth in the Lady Shoal Approach Channel would mostly be less than 1m and would generate approximately 160,000m^3 of material (385,000m^3 with an over-dredge allowance of 0.5m). Dredging has not previously taken place within the Lady Shoal Approach Channel.

Total volume of dredged material would therefore be approximately 220,000m^3 (490,000m^3 with an over-dredge allowance of 0.5m). All dredging would be undertaken by back-hoe dredger, with the material being disposed of at the existing licenced Middle Bank disposal site using hopper barges.

A piled wall will be installed along the front of the PCW quay. Localised excavation around the base of the quay wall may be required to remove any obstructions, using either land-based long reach excavators or dredging equipment, as appropriate, and will be backfilled added as required to maintain to a level in front of the wall of -10m CD.

2. Purpose of Document

A marine construction licence and marine disposal licence are being sought from the Marine Directorate Licensing Team (MD-LOT) to permit the installation of the piled front at PCW and disposal of the dredged material associated with the Proposed Scheme. The dredging activity would be undertaken under the Port of Dundee's powers conferred by the Dundee Harbour and Tay Ferries Order Confirmation Act, 1952.

The Proposed Scheme was confirmed by an Environmental Impact Assessment (EIA) Development by MD-LOT under Schedule 2 Section 10(g) of the Marine Works (EIA) (Scotland) Regulations 2017 (as amended).

The EIA screening opinion provided by MD-LOT (dated 3 April 2025) confirmed that Historic Environment Scotland (HES) had been consulted by the Scottish Ministers (see Appendix 1-3 of the EIA Report (EIAR) accompanying the marine licence application (PC6550-RHD-XX-XX-RP-EV-0062. Their response advised that HES had not identified any potentially significant effects on the historic environment and therefore had no reason to consider the Proposed Scheme to be an EIA project. Further to this, impacts to archaeology and cultural heritage associated with the Proposed Scheme have been scoped out of EIA as there are no known previously recorded heritage assets within the Port of Dundee or the Lady Shoal Approach Channel. Furthermore, the potential for maritime, or aviation, remains, or buried prehistoric deposits, is expected to have been reduced by previous capital and maintenance dredging within the area of the Port. As such,

remains are anticipated to be limited to isolated finds, rather than *in-situ* wrecks, aircraft crash sites or submerged / buried prehistoric archaeology (see **Section 3** below).

Since submission of the EIA Screening Report (see Appendix 1-1 of accompanying EIAR), geophysical and geotechnical data have been acquired to inform assessment of the potential impacts of the Proposed Scheme. This survey data has been reviewed by marine archaeological and geoarchaeological specialists at Haskoning and the results support the conclusion that there is limited potential for archaeological discoveries during activities associated with the Proposed Scheme. As such, this document has been prepared to set out:

- the results of the review of geophysical (see **Section 3.2**) and geotechnical (see **Section 3.3**) data acquired for the Proposed Scheme; and
- the approach to implementing a Protocol for Archaeological Discoveries (PAD) to account for any unexpected discoveries during activities associated with the Proposed Scheme.

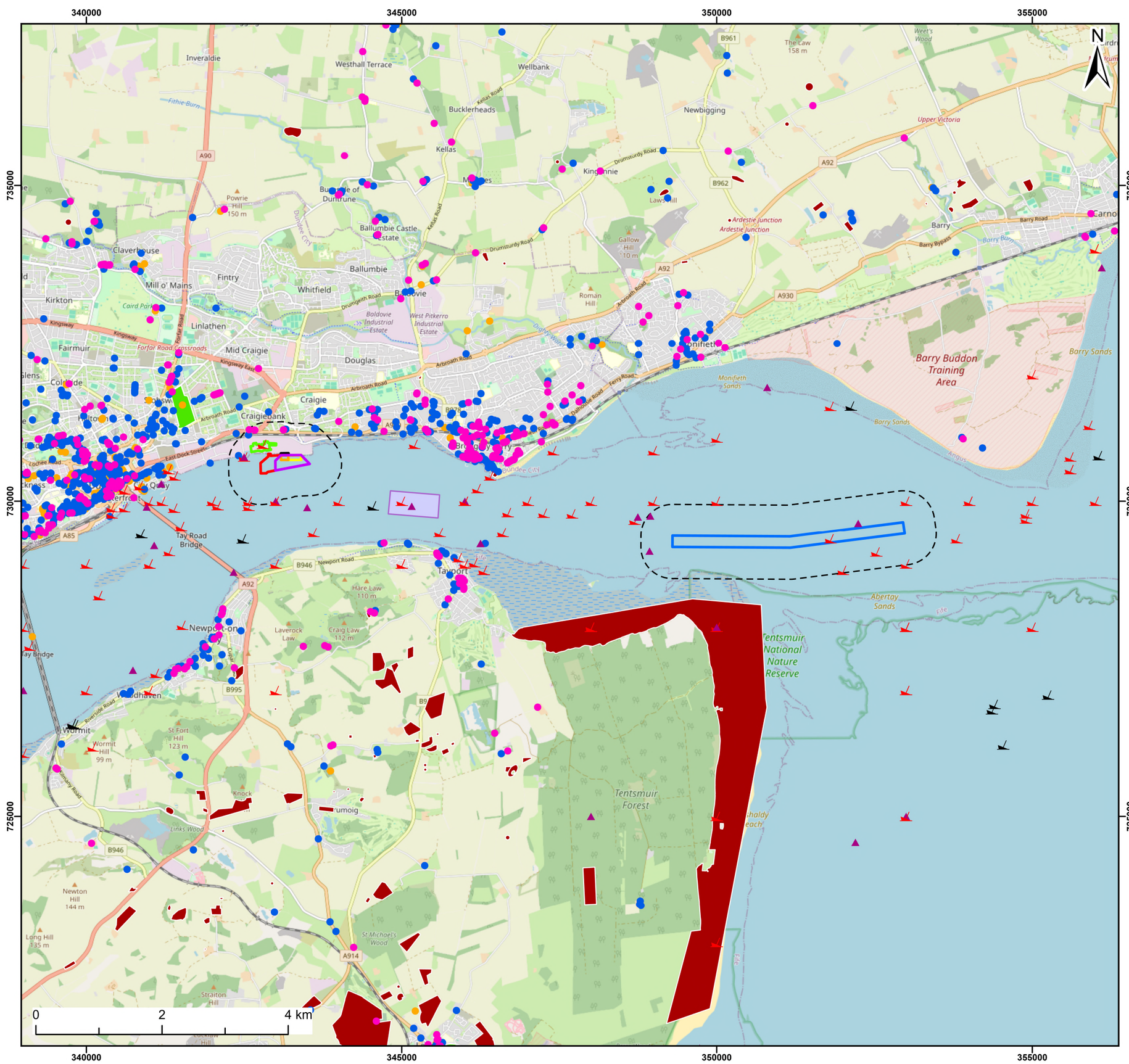
3. Archaeological Assessment

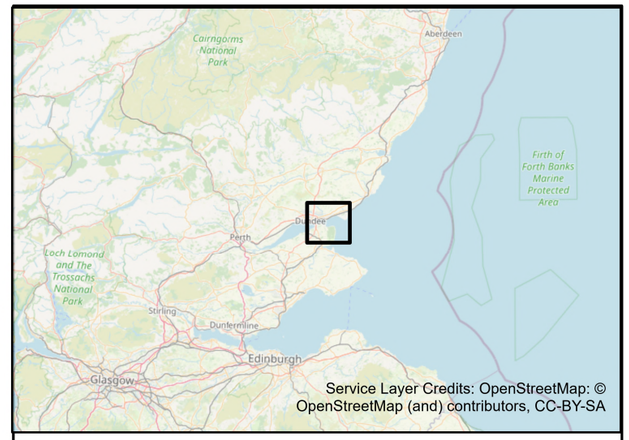
3.1. Desk-based Assessment

The following data sources were searched to inform a description of the existing environment for archaeology and cultural heritage presented in the EIA Screening Report:

- Records of designated heritage assets available from the HES Historic Environment Portal;
- Records of non-designated heritage assets from the National Record of the Historic Environment (NRHE) via Canmore (also accessed via the HES Historic Environment Portal); and
- Records of wrecks and obstructions recorded by the UK Hydrographic Office (UKHO) from the Admiralty Marine Data Portal.

These were mapped against a study area comprising the Proposed Scheme's boundary plus a 500m buffer in order to identify non-designated historic assets within, and in the vicinity of, the Proposed Scheme (**Figure 3-1).**





Legend:

- Prince Charles Wharf Approach Channel Dredge Area
- DunEco Quay Approach Channel Dredge Area
- Quay Improvement Works
- Proposed Extension to PCW Berth Pocket
- Existing PCW Berth Pocket
- Lady Shoal Approach Channel Dredge Area
- Laydown Area
- 500m Buffer
- Gardens and Designed Landscapes
- Scheduled Monuments

Listed Buildings by Category

- A
- B
- C
- Wreck Area
- Obstruction
- Wreck
- Casualty

Client:	Project:
Port of Dundee Limited	Port of Dundee Capital Dredge and Improvement Works Archaeological Assessment and Protocol for Archaeological Discoveries

Title: Archaeology and Cultural Heritage

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3-1	PC6550-RHD-XX-ZZ-DR-Z-0046

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The results of the desk-based assessment are summarised as follows:

- There are no designated heritage assets within the Port or Lady Shoal approach channel dredge areas, nor within the 500m Lady Shoal approach channel study area. Within the 500m Port study area there are five Category B and five Category C Listed Buildings. There will be no change to the setting of these designated buildings associated with the Proposed Scheme.
- There are no non-designated heritage assets recorded within the Port dredge area. There is a single point recorded within the Lady Shoal approach channel dredge area, which corresponds to the recorded location of two casualties, lost near the entrance to the River Tay. Casualty records represent the approximate location of a documented loss and do not, except by chance, represent actual wreck remains.
- There are 24 further maritime / UKHO records within the 500m study area including:
    - 15 records of maritime casualties historically documented at Dundee (all records of losses rather than known wrecks);
    - Five records of aircraft losses documented within the Outer Tay Estuary (all records of losses rather than known aircraft crash sites); and,
    - Two UKHO areas marked as 'foul ground' (UKHO IDs: 3118 and 3105) and two UKHO 'obstructions', one described as a diffuser (UKHO ID 99204) which is not of archaeological interest and one (UKHO ID: 99205) which is unidentified.

As such, there are no known records of heritage assets within the dredge areas, although the records of loss suggest a relatively high potential for undiscovered wrecks and aircraft within the wider area. However, the desk-based assessment also concludes that the potential for maritime or aviation, remains, or buried prehistoric deposits, is expected to have been significantly reduced by previous capital and maintenance dredging within the Port dredge area. No *in-situ* wrecks, or aircraft crash sites, have been identified in the geophysical data within either the Port dredge area or the Lady Shoal approach channel dredge area.

3.2. Geophysical Review

Geophysical survey data were acquired from the Port dredge area and Lady Shoal approach channel dredge area by Aspect Land and Hydrographic Surveys Ltd. (Aspect). The geophysical data were acquired from the Port dredge area between 7th April and 21st May 2025 (Aspect, 2025a, 2025b). Data included Multibeam Bathymetry (MBES), Side-Scan Sonar (SSS), Sub-bottom profiler (SBP) and Gradiometer data. All data were acquired with reference to OSGB36, British National Grid and to Chart Datum which is 2.90m below Ordnance Datum at Dundee.

The SBP and MBES data from the Port dredge area shows that, where dredging has previously taken place, sediments at seabed are expected to comprise a thin layer of more mobile, granular material over outcrops of rock and glacial clays (Aspect, 2025a). Within the surveyed area, the following three acoustically distinct units were recorded in the SBP data (2025a):

- Unit 1, comprising gravelly silty fine to coarse sands and sandy silts with clays (further subdivided into Unit 1A and Unit 1B:
    - Unit 1A is likely to be generally finer and more variable in composition than the underlying Unit 1B and with bands of sandy silt.
    - Unit 1B is likely predominantly granular and generally comprising gravelly silty sands with cobbles and bands of silt.

- Unit 2 is present throughout the majority of the survey area at seabed where not overlain by Units 1A and 1B. It is likely to comprise predominantly gravelly silty sands with cobbles.
- Unit 3 is expected to comprise rocks of the Devonian Dundee Flagstone Formation and Ochil Volcanic Formation (andesites, tuffs and agglomerates).

The seabed in the southern part of the survey area is characterised by megaripples and the potential for buried finds may be considered higher in this area, particularly in the small area outside the maintained dredge area. Aspect (2025a) has interpreted 38 individual features within the MBES and SSS data from the Port dredge (nine boulders, 12 items of debris and 15 items of linear debris) with 559 further magnetic anomalies from the gradiometer data (**Figure 3-2**). Several of the magnetic anomalies coincide with the SSS / MBES anomalies, and where anomalies do not coincide with seabed features, magnetic anomalies may indicate buried material.

Although the number of seabed features and magnetic anomalies are high, this reflects the use of the area as a busy shipping route associated with considerable industrial development. This is reflected in the distribution of anomalies which are concentrated in the northern area of the Port dredge area adjacent to the Port, and within the existing dredged zones (**Figure 3-2**). Of the ten features within the southern area, four have been identified by Aspect as boulders, one tyre, three linear features and two items of debris.

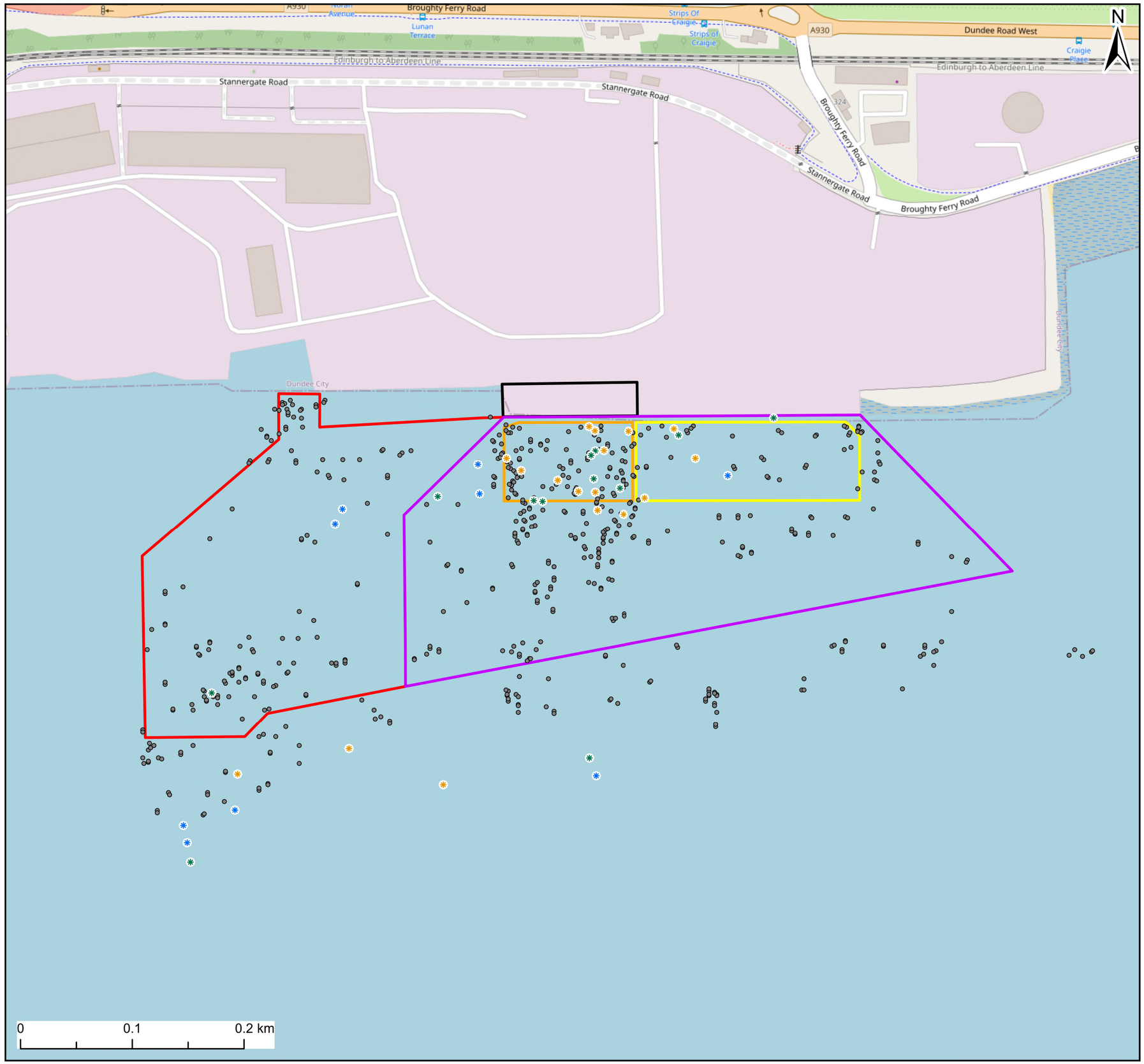
No potential wrecks or aircraft crash sites have been identified from the data. Whilst items of debris could correspond to items of possible archaeological interest, the potential for archaeological finds overall is anticipated to have been reduced by previous dredging activities. As such, there are no recommendations for Archaeological Exclusion Zones (AEZs) and it is recommended that any potential isolated finds be addressed through the PAD (**Section 4)**.

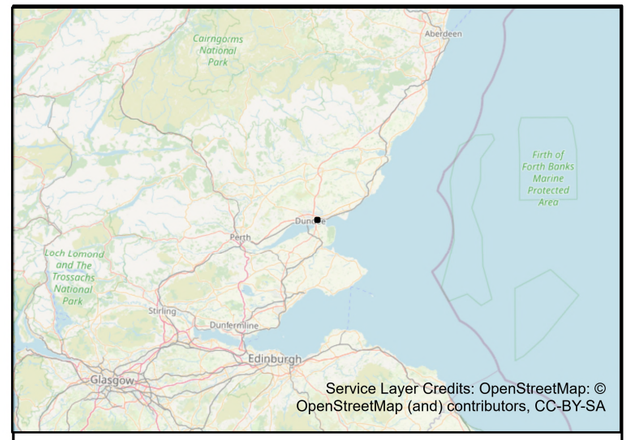
Units 1A and 1B were similarly observed overlying Unit 2 in the Lady Shoal approach channel, although a reflector in the data (R2) at the base of Unit 2 was seen to likely represent the upper surface of dense to very dense gravel and cobbles (Aspect, 2025b). Unit 3 in the Lady Shoal area is described by Aspect as expected to comprise dense and very dense silty fine to medium sands with occasional thin clay bands.

Within the Lady Shoal area 217 seabed features were identified (153 boulders, 36 items of debris and 28 items of linear debris) with 563 further magnetic anomalies from the gradiometer data (Aspect, 2025b) (**Figure 3-3**). Only 28 of the items of debris / linear debris are located within the proposed dredge area itself, the survey having been extended beyond the proposed boundary to acquire data on possible mussel beds to the south. The Feeder 13 pipeline was also observed in the west as an area of disturbed seabed c. 100m in width spanning the survey area. Several seabed scars were also apparent in the central and western parts of the site. Aspect note that magnetometer data within the survey area was generally quiet, with few large anomalies outside of the position of the Feeder 13 pipeline. Anomalies are relatively evenly distributed over the west and north east of the survey area, and sparse within the central and south eastern parts of the survey area. Several of the magnetic anomalies coincide with the SSS / MBES anomalies, and where anomalies do not coincide with seabed features, magnetic anomalies may indicate buried material.

As above, although the number of seabed features and magnetic anomalies are high, this likely reflects the use of the area as a busy shipping route rather than increased potential for archaeological remains. No potential wrecks or aircraft crash sites have been identified from the data.

It is also of note that during a benthic survey, consisting of drop-down camera sampling and grab sampling at a series of locations within and surrounding the proposed Lady Shoal approach channel dredge area, no anthropogenic material was recorded with most dominant sediment types comprising Muddy Sandy Gravel, Gravelly Muddy Sand and Sandy Gravel (Ocean Ecology, 2025).





Legend:

- Prince Charles Wharf Approach Channel Dredge Area
- DunEco Quay Approach Channel Dredge Area
- Quay Improvement Works
- Proposed Extension to PCW Berth Pocket
- Existing PCW Berth Pocket
- Magnometer Anomolies

Seabed feature

- Boulder
- Debris
- Linear debris

Client:	Project:
Port of Dundee Limited	Port of Dundee Capital Dredge and Improvement Works Archaeological Assessment and Protocol for Archaeological Discoveries

Title:

Distribution of Seabed Features and Magnetometer Anomalies Within the DunEco Quay and PCW Area

Figure:	Drawing No:
3-2	PC6550-RHD-XX-ZZ-DR-Z-0047

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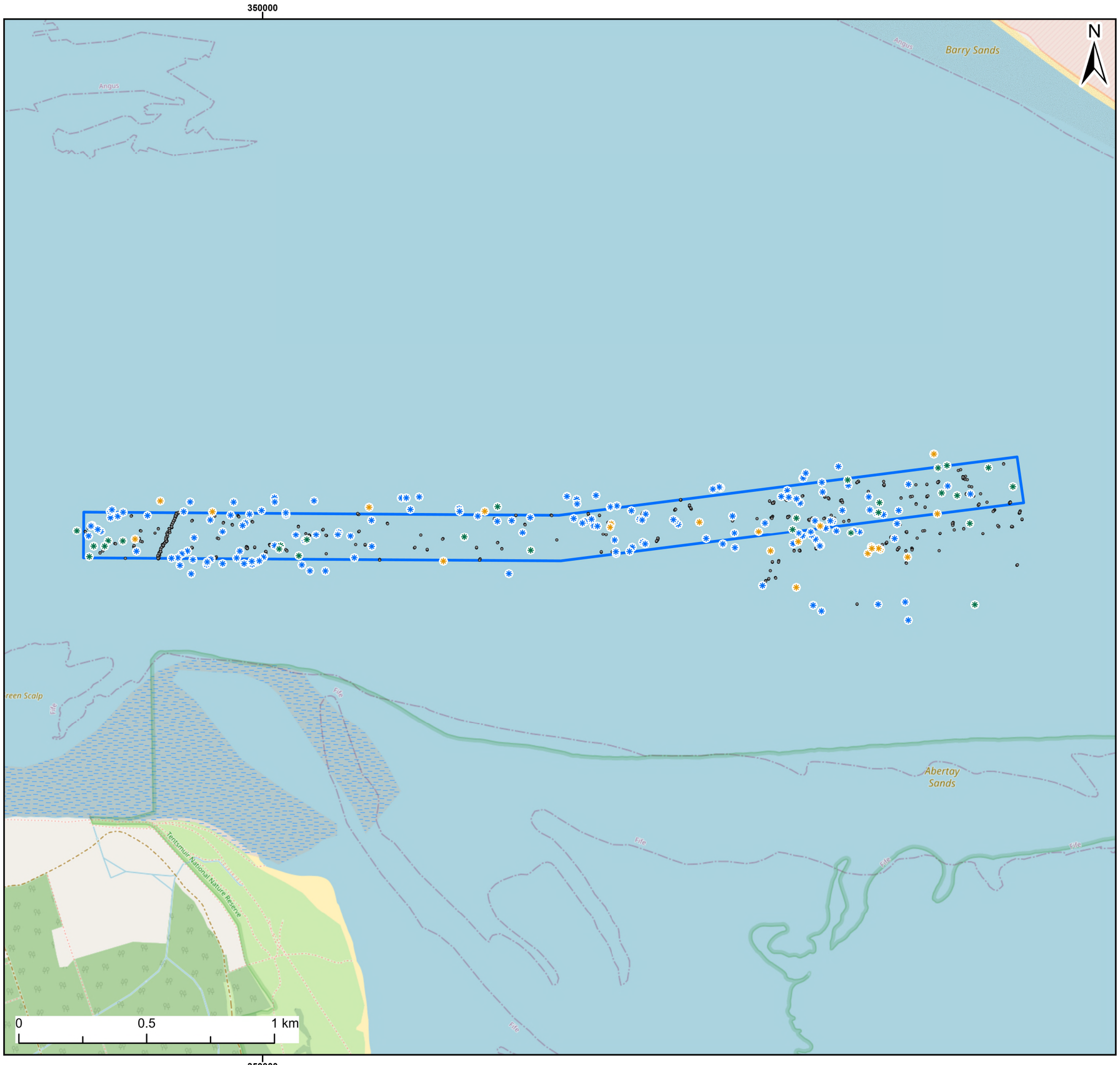

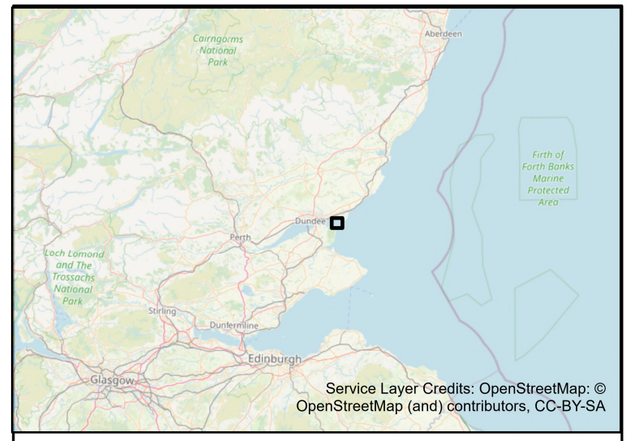

Legend:

- Lady Shoal Approach Channel Dredge Area
- Magnometer Anomalies

Seabed feature

- Boulder
- Debris
- Linear debris

Client:	Project:
Port of Dundee Limited	Port of Dundee Capital Dredge and Improvement Works Archaeological Assessment and Protocol for Archaeological Discoveries

Title:

Designated Sites at 80km of the Proposed Development at the Port of Dundee

Figure:	Drawing No:
3-3	PC6550-RHD-XX-ZZ-DR-Z-0048

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Given the absence of previously identified heritage assets, the limited depth of dredging, and the dominance of shallow, coarse surficial sediments (which are less conducive to the preservation of archaeological material than finer grained material), it is anticipated that any archaeological finds would be limited to isolated discoveries. It is recommended that any potential isolated finds be addressed through the PAD (**Section 4**).

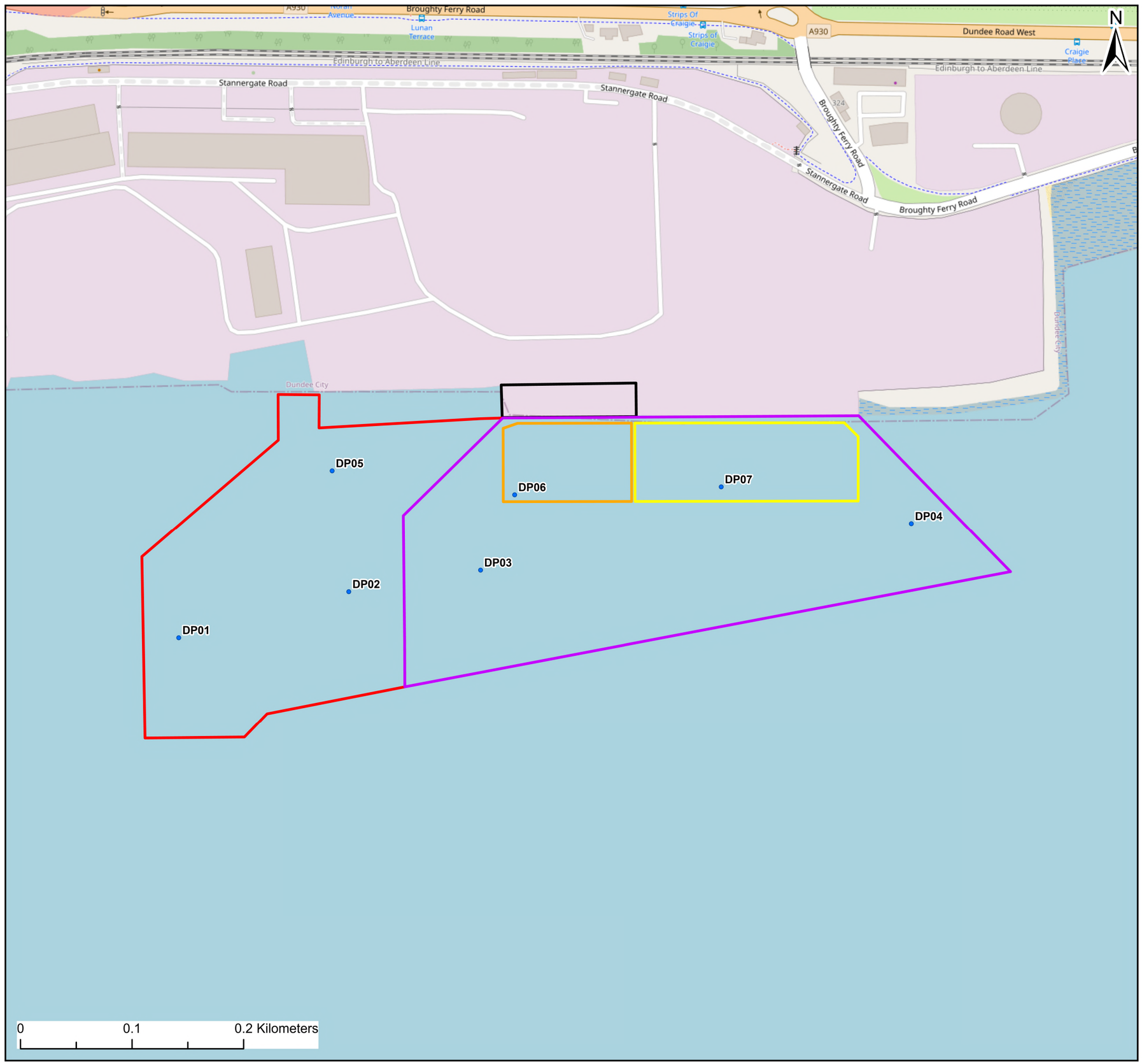
3.3. Geoarchaeological Assessment

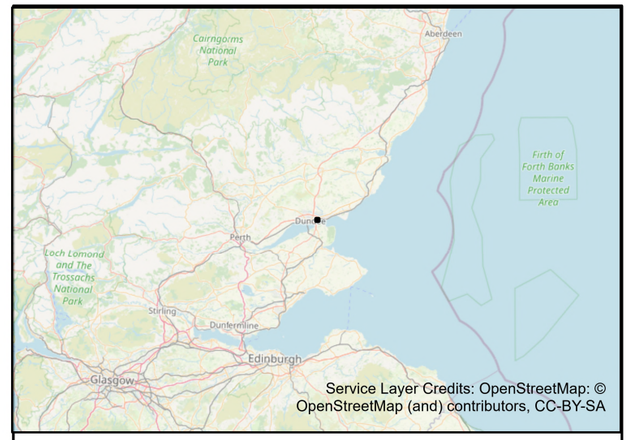
The ground investigation was undertaken by Causeway Geotech (Causeway 2025), on 10 and 11 February 2025, to provide environmental information for the dredging of the approach channels and berth pockets. The survey comprised seven vibrocores in the Port dredge area and nine vibrocores at the Lady Shoal approach channel dredge area (**Figure 3-4** and **Figure 3-5**). Each of the 16 vibrocores were undertaken to depth of refusal of the sampler (i.e. on cobbles and boulders, underlying glacial diamicton or on underlying rock) (Causeway, 2025).

The geotechnical logs were provided to Haskoning and reviewed by a specialist marine geoarchaeologist.

In summary, estuarine alluvium or marine beach deposits were encountered in each of the vibrocores with possible glacial till encountered in the base of two of the vibrocores from the Lady Shoal approach channel dredge area (LS06 and LS07). These deposits are of limited geoarchaeological interest and low palaeoenvironmental potential. As such, there are no recommendations for further assessment.

The full results of the geoarchaeological review are included in **Appendix A1**.





Legend:

- Prince Charles Wharf Approach Channel Dredge Area
- DunEco Quay Approach Channel Dredge Area
- Quay Improvement Works
- Proposed Extension to PCW Berth Pocket
- Existing PCW Berth Pocket
- VC Locations

Client:	Project:
Port of Dundee Limited	Port of Dundee Capital Dredge and Improvement Works Archaeological Assessment and Protocol for Archaeological Discoveries

Title:

Location of Vibrocores -
Page 1 of 2

Figure:	Drawing No:
3-4	PC6550-RHD-XX-ZZ-DR-Z-0049

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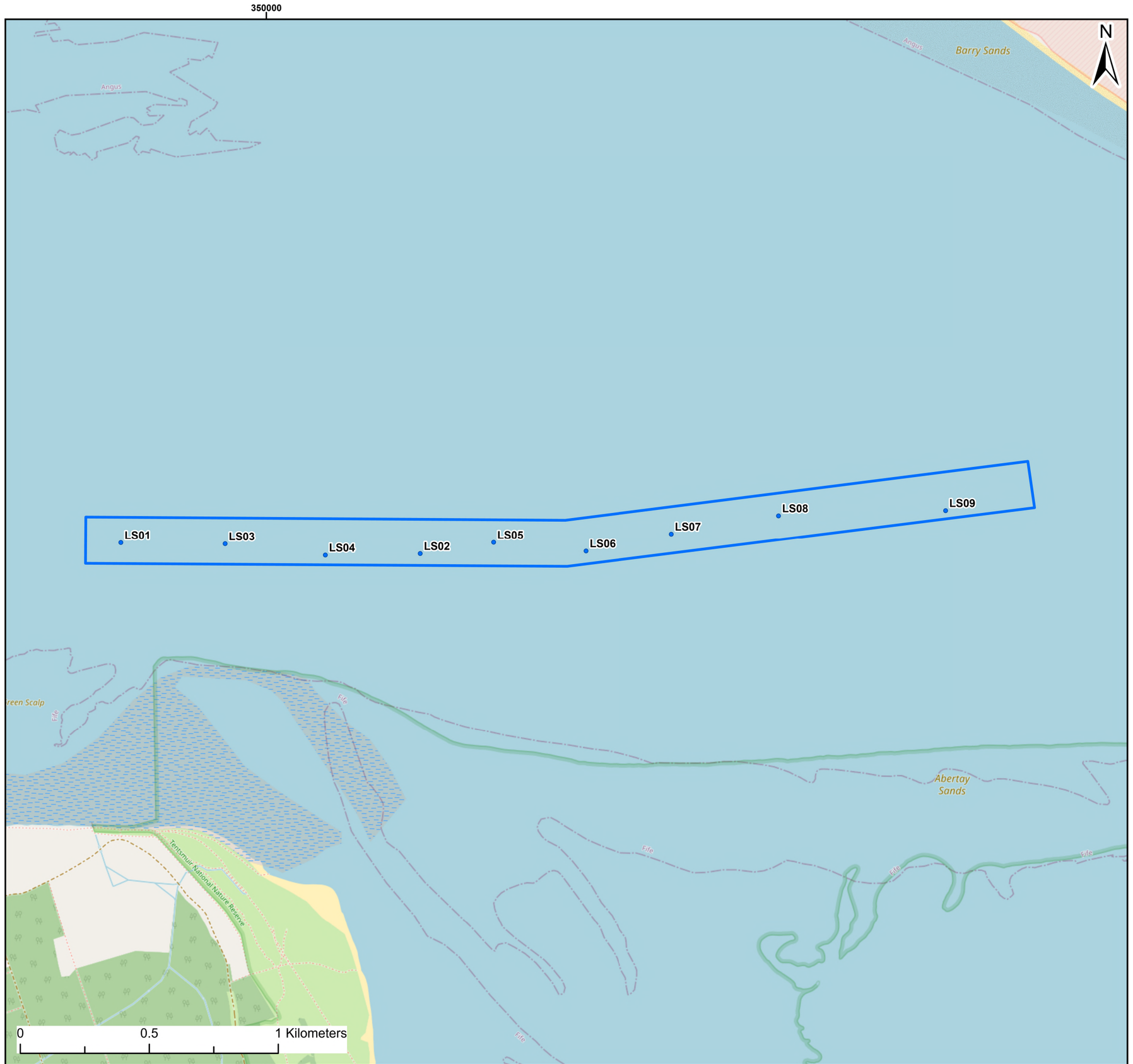

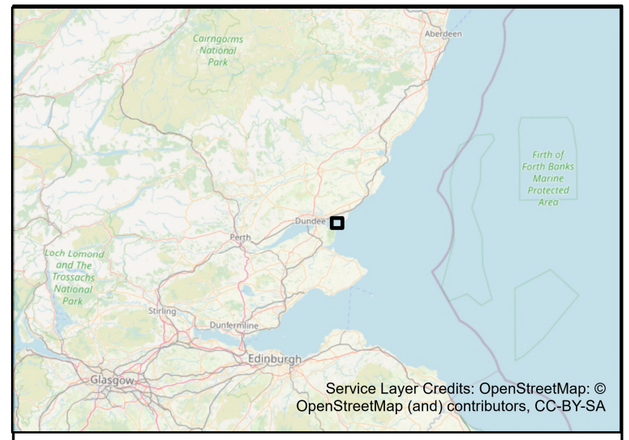

Legend:

- Lady Shoal Approach Channel Dredge Area
- VC Locations

Client:	Project:
Port of Dundee Limited	Port of Dundee Capital Dredge and Improvement Works Archaeological Assessment and Protocol for Archaeological Discoveries

Title:

Location of Vibrocores -
Page 2 of 2

Figure:	Drawing No:
3-5	PC6550-RHD-XX-ZZ-DR-Z-0049

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Co-ordinate system: British National Grid

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4. Protocol for Archaeological Discoveries

4.1. Approach

The approach taken in implementing the PAD during the Proposed Scheme will follow industry standard methodologies set out in the Marine Aggregates Industry Protocol for reporting finds of archaeological interest (BMAPA, English Heritage and Wessex Archaeology, 2005) and the Offshore Renewables Protocol for Archaeological Discoveries (The Crown Estate, 2014). This approach comprises the following structure:

- Awareness training provided to staff and contractors prior to works commencing;
- Discoveries are made on the seabed or on board a vessel;
- Staff / crew provide first aid to finds and record basic details of discovery;
- Discoveries are reported to the Retained Archaeologist who will provide initial advice and seek specialist advice as necessary;
- Measures to address the discovery are established by the Retained Archaeologist, in consultation with the Port of Dundee and the Archaeological Curator, as necessary;
- Measures are implemented by staff / crew; and
- A summary report is provided to stakeholders by the Retained Archaeologist and a MIDAS Heritage compliant report is forwarded to national and local authority heritage data archives.

4.2. Circumstances of Discovery

Should previously undiscovered finds be present within the development footprint these could be encountered during the following construction activities:

- Capital dredging of the Port dredge area and the Lady Shoal approach channel dredge area; and
- Removal of existing piles and installation of a 105m piled wall along the section of the PCW quay.

4.3. Types of Discovery

Discoveries may comprise finds or seabed obstructions. Finds are categorised as:

- Wreck: all artefacts originating from a vessel in accordance with the legal definition of ‘wreck’ in the Merchant Shipping Act (1995) and which must be reported to the Receiver of Wreck;
- Non-wreck: cultural artefacts that present within terrestrial contexts and on the seabed as a result of having been lost on land, either at times of lowered sea-level or eroded from the shore; and
- Treasure: In Scotland, if an object is found that might be treasure, it must be reported to the Treasure Trove Unit at the National Museums of Scotland, a local museum, or the local council archaeologist. However, the Scots common law right relating to found archaeological and historic items in Scotland (and dealt with through the system of Treasure Trove) does not extend to the marine environment except to the foreshore.

An obstruction, or ‘site,’ on the seafloor may comprise previously undiscovered wrecks or fragments of wrecks, including aircraft, former port and harbour structures or the remains of other structures or installations.

If discoveries comprise unexploded ordnance (UXO) then measures put in place by the Port of Dundee will take precedence. Historic ordnance, however, may still be of archaeological interest and can still be reported under the PAD once UXO policy has been satisfied.

4.4. Roles, Responsibilities and Communications

4.4.1. Port of Dundee

The Port of Dundee will retain ultimate responsibility for implementing the PAD. Specific responsibilities will include:

- Securing the services of a Retained Archaeologist to facilitate the implementation of the PAD;
- Assigning staff to the key roles of Nominated Contact and Site Champions and ensuring their awareness of their responsibilities under the PAD;
- Ensuring the availability of staff / crew and contractors for toolbox talks;
- Ensuring that the Receiver of Wreck is informed in the event of discoveries of wreck material; and
- Providing a report following the completion of activities to the Archaeological Curator to demonstrate adherence to the PAD.

4.4.2. Retained Archaeologist

The Port of Dundee will secure a Retained Archaeologist to facilitate the implementation of the PAD. Details of the Retained Archaeologist contracted by the Port of Dundee to facilitate the implementation of the protocol are to be confirmed by the Port of Dundee. The Retained Archaeologist will be responsible for:

- Providing a briefing note and / or slides to be presented to staff at mobilisation to ensure awareness of the PAD and to provide guidance on the types of discoveries that may be encountered (if required);
- Providing initial advice to staff / crew in the event of a discovery;
- Undertaking an assessment of archaeological potential;
- Seeking specialist advice to inform the interpretation of discoveries, where necessary;
- Consulting with stakeholders (e.g. the Archaeological Curators) to agree proportionate measures to address discoveries; and
- Producing summary reports and MIDAS Heritage compliant reports to disseminate data to stakeholders.

4.4.3. Nominated Contact

A member of staff from the Port of Dundee will be nominated to act as the single point of contact for all communications regarding archaeology. The Nominated Contact will be responsible for:

- Co-ordinating reports of discoveries from site champions and ensuring that appropriate ‘first aid for finds’ is carried out and that initial data is recorded;
- Reporting discoveries to the Retained Archaeologist and to the Receiver of Wreck, if required;
- Communicating appropriate measures to site staff as advised by the Archaeological Contractor; and
- Ensuring that measures are implemented as appropriate.

4.4.4. Site Champion

The Nominated Contact will identify a Site Champion, or Champions as appropriate, to act as a single point of contact for staff on site. The Site Champion will be responsible for:

- Implementing a Temporary Exclusion Zones (TEZ) should a discovery be identified;
- Ensuring observation of the TEZ by all staff and contractors;
- Compiling Preliminary Record sheets for discoveries; and,
- Reporting discoveries to the Nominated Contact.

The approach to implementing TEZs is detailed in **Section 4.54.5**.

4.4.5. All Staff / Crew and Contractors

On making a discovery all staff/crew and contractors have a responsibility under the terms of the PAD to:

- Safeguard finds:
    - Handle with care;
    - Leave marine growth, rust, sediment, or concretion intact; and
    - Undertake appropriate first aid measures, such as immersing waterlogged finds in seawater in a clean, covered container.
- Undertake initial recording:
    - Record the position of the discovery;
    - Photograph finds in the condition in which they were recovered;
    - Label finds with a unique ID number as advised by the Archaeological Contractor; and
    - Report the discovery to the Site Champion.

All staff and contractors also have a responsibility to observe mitigation measures agreed by the Port of Dundee, with the Archaeological Curator such as the implementation of a TEZ at the location of a discovery.

4.5. Temporary Exclusion Zones

Archaeological Exclusion Zones (AEZs) are the principal means used to preserve heritage assets in-situ.

There are currently no known heritage assets and no AEZs within the proposed dredge areas.

In the event of a discovery of possible archaeological material, a TEZ would be implemented by the Nominated Contact if the position of an obstruction, anomaly, or find is known with reasonable certainty. A TEZ precludes all activities from taking place in the vicinity of the obstructions, anomaly or find until further archaeological advice has been obtained.

Additional investigation may be required, which may include:

- high resolution geophysical survey;
- diver survey; or
- Remotely Operated Vehicle (ROV) survey.

If, following further investigation, it can be reasonably concluded that there is no important wreck or other feature present within the TEZ then it will be revoked. The TEZ may be formalised as an AEZ if:

- an important wreck or other site or feature is confirmed to be present on the seabed; or
- if the Port of Dundee does not wish to undertake additional investigation to confirm the nature of the discovery.

The removal of a TEZ, or formalisation into an AEZ, will occur only following consultation and in agreement with the Archaeological Curator.

Where additional investigations are required, the approaches will be set out in a method statement, with specifications to be agreed by the Port of Dundee with the Archaeological Curator, as advised by the Retained Archaeologist. A report detailing the results of the investigation will be submitted to the Archaeological Curator to inform discussions concerning the removal or formalisation into an AEZ. If archaeological remains are confirmed and it is not possible to implement a formal AEZ then, subject to agreement with the Archaeological Curator, the Port of Dundee may implement alternative forms of mitigation such as a programme of recording and / or recovery. These measures will be detailed in a method statement for agreement with the Archaeological Curator and submitted to MD-LOT.

4.6. Reporting Discoveries

A flow chart illustrating the PAD as described below is included as **Appendix A2**.

Staff / crew or contractors making a discovery will report the find or obstruction to the Site Champion. If the discovery comprises an obstruction on the seabed, and the position is known, then intrusive works (dredging) will cease in the vicinity of this position and the position of the obstruction will be recorded. Works will not recommence in this vicinity of the position until archaeological advice has been obtained from the Retained Archaeologist. The Site Champion will implement a TEZ and ensure observation by staff and contractors.

If the discovery comprises archaeological material, the position of the discovery should be recorded. This will be the position of the find itself, if known, or the position of the backhoe dredge at the time of the discovery.

The find should be photographed in its discovery condition, including an appropriate scale in the photograph. If photographs are not possible then a drawing or other record may be used as an alternative. Staff will take measures to safeguard the find including first aid conservation:

- Marine growth, rust, sediment, or concretion should be left intact;
- Waterlogged finds should be immersed in seawater in a suitable clean and covered container; and
- Dry finds should be placed in a suitable container and stored in a cool, dark place.

The Site Champion will ensure that safeguarding has taken place and will compile a Preliminary Record (**Appendix A3**) and pass this, along with any photographs, drawings, or other records, to the Nominated Contact.

On receiving the report of a discovery, the Nominated Contact will confirm the details of the Preliminary Report with the Site Champion and inform the Retained Archaeologists soon as possible. The Nominated Contact will ensure that all staff / crew and contractors that may be required to work in the area are aware of the discovery.

If the find is, or appears to be 'wreck,' the Nominated Contact will, as soon as possible, notify the Receiver of Wreck in accordance with the Merchant Shipping Act (1995).

The Retained Archaeologist will advise the Nominated Contact of any further actions that may be required such as:

- Advice on first aid conservation or actions to be taken in respect of a find;
- Advice on the identification of finds and proposals to further evaluate discoveries; and
- Advice to prevent further impacts, such as the implementation of an exclusion zone.

The Retained Archaeologist will undertake an assessment of the archaeological potential of discoveries and will liaise with the Archaeological Curator, the Port of Dundee, and other stakeholders as relevant, to agree measures to address the discovery. The Retained Archaeologist will advise the Port of Dundee on any additional work required to stabilise, conserve or record recovered finds.

Following identification, evaluation, and the agreement of measures to address the discovery the Retained Archaeologist will compile a summary report for the discovery for distribution to stakeholders if required. A MIDAS Heritage compliant report to submit details of the discovery to national and local authority heritage data archives will also be produced.

4.7. Timing

Action will be taken immediately following a discovery so that the precise position of a discovery can be calculated and recorded (from the vessel track for example) and to minimise disruption to works.

Measures to safeguard finds, including the application of first aid conservation, will be implemented as soon as possible following discovery, in accordance with health and safety and practical requirements.

The initial record, including photographs, will be compiled, and forwarded by the Site Champion to the Nominated Contact on the same working day that the discovery is made.

On receiving the report, the Nominated Contact will report the discovery to the Retained Archaeologist on the same working day.

An initial response will be provided by the Retained Archaeologist to the Nominated Contact within two working days of receiving the initial report.

A timetable for implementing measures to address the discovery will be agreed following the initial response as appropriate to the archaeological interest of the discovery.

5. References

Aspect Land and Hydrographic Surveys Ltd (2025a) Multibeam, Side-Scan Sonar, Geophysical and Gradiometer Survey Prince Charles Wharf And Duneco Quay, Port Of Dundee. Reference: A9540.

Aspect Land and Hydrographic Surveys Ltd (2025b) Multibeam, Side-Scan Sonar, Geophysical and Gradiometer Survey Lady Shoal, Forth of Tay. Reference: A9543.

Causeway Geotech Ltd (2025) Port Of Dundee and Lady Shoal Vibrocoring Ground Investigation Report. Reference: 24-M002.

Ocean Ecology (2025) Firth of Tay Benthic Survey 2024: Technical Report. Reference: OEL_FORTAY0924_TCR

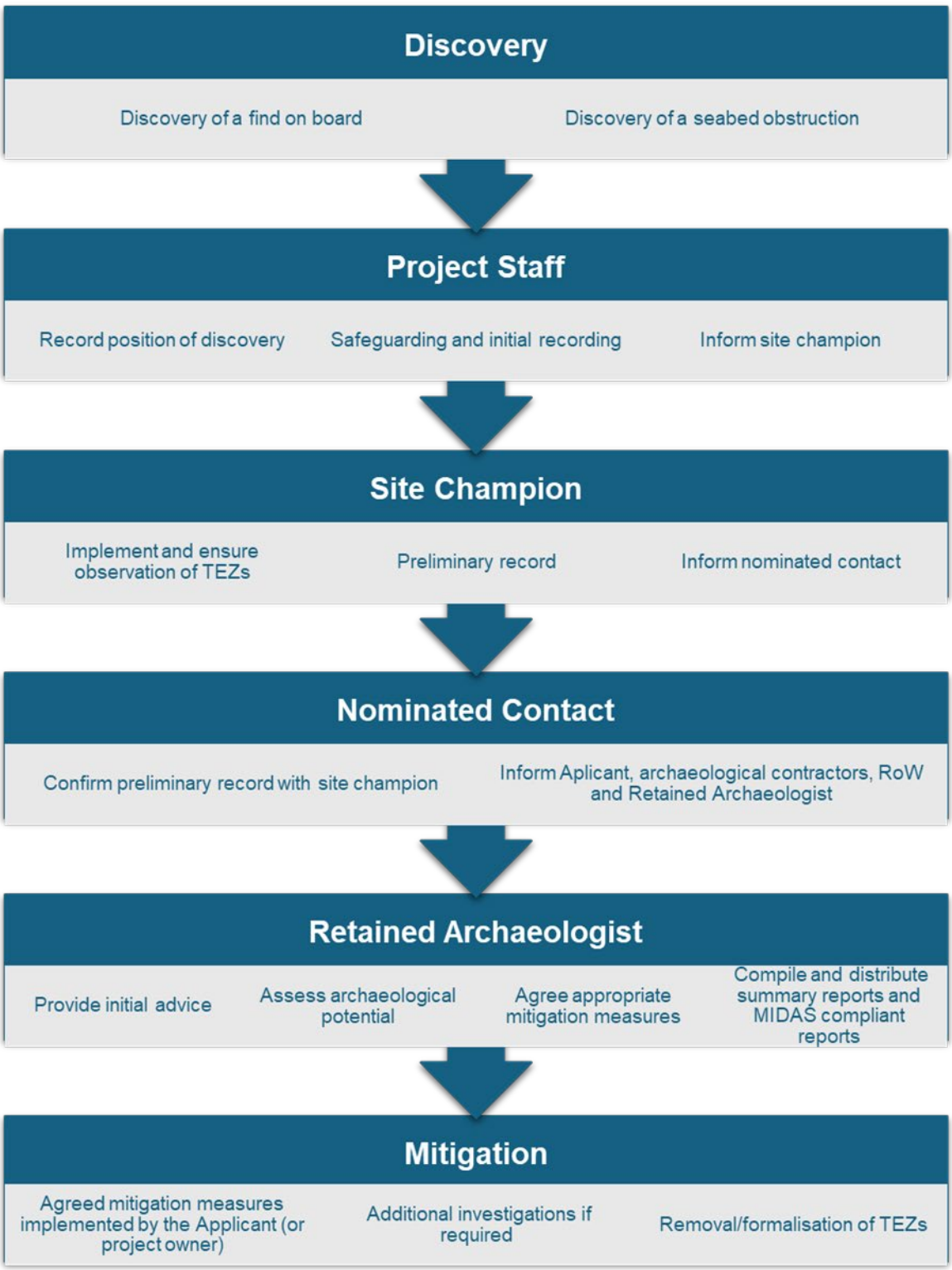
Royal HaskoningDHV (2025) Port of Dundee Capital Dredge and Improvement Works EIA Screening Report. Reference: PC6550-RHD-XX-XX-RP-EV-0001.

A1 Geoarchaeological Review

VID	Top (m)	Base (m)	Description	Interpretation	Geoarchaeological Potential
DP01	0.00	1.10	Dark brownish grey gravelly silty fine to coarse SAND with frequent shell fragments and low cobble content. Gravel is subangular to subrounded fine to coarse of various lithologies. Cobbles are subrounded of various lithologies.	Estuarine Alluvium	Low
DP02	0.00	0.60	Reddish brown slightly gravelly slightly silty fine to coarse SAND. Gravel is subangular to subrounded fine to medium of various lithologies.	Estuarine Alluvium	Low
DP03	0.00	0.60	Dark greyish brown silty fine to coarse SAND with abundant shell fragments.	Estuarine Alluvium	Low
DP03	0.60	1.10	Soft brownish black sandy CLAY with abundant shell fragments. Sand is fine to coarse.	Estuarine Alluvium	Low
DP03	1.10	2.00	Brownish grey gravelly slightly silty fine to coarse SAND with frequent shell fragments. Gravel is subangular to subrounded fine to coarse of various lithologies.	Estuarine Alluvium	Low
DP04	0.00	2.00	Very soft becoming soft dark brownish grey sandy SILT with abundant shell fragments and occasional pockets of black clay. Sand is fine to coarse.	Estuarine Alluvium	Low
DP04	2.00	2.35	Brownish grey gravelly slightly silty fine to coarse SAND with occasional shell fragments. Gravel us subangular to subrounded fine to medium of various lithologies.	Estuarine Alluvium	Low
DP05	0.00	1.60	Reddish brown slightly gravelly slightly silty fine to coarse SAND with frequent shell fragments. Gravel is subangular to subrounded fine to medium of various lithologies.	Estuarine Alluvium	Low
DP06	0.00	1.20	Brownish grey slightly silty fine to coarse SAND with abundant shells and shell fragments, and occasional pockets of black clay.	Estuarine Alluvium	Low
DP07	0.00	0.50	Greyish brown slightly sandy slightly gravelly CLAY with occasional shell fragments. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium of various lithologies.	Estuarine Alluvium	Low
DP07	0.50	1.80	Greyish brown slightly gravelly slightly clayey fine to coarse SAND with occasional shell fragments and low cobble content. Gravel is subangular to subrounded fine to coarse of various lithologies. Cobbles are subrounded of various lithologies.	Estuarine Alluvium	Low
LS01	0.00	1.20	Dark brownish black gravelly slightly silty fine to coarse SAND with frequent shell fragments and low cobble content. Gravel is subangular to subrounded fine to coarse of various lithologies.	Estuarine Alluvium	Low
LS02	0.00	1.30	Reddish brown slightly gravelly slightly silty fine to coarse SAND with frequent shell fragments. Gravel is subangular to subrounded fine to medium of various lithologies.	Estuarine Alluvium	Low

VID	Top (m)	Base (m)	Description	Interpretation	Geoarchaeological Potential
LS03	0.00	0.50	Reddish brown gravelly slightly silty fine to coarse SAND with occasional shell fragments and medium cobble content. Gravel is subangular to subrounded fine to coarse of various lithologies. Cobbles are subrounded of various lithologies	Estuarine Alluvium	Low
LS04	0.00	0.65	Firm reddish brown slightly gravelly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is subangular fine to coarse of various lithologies. Cobbles are subrounded of various lithologies.	Estuarine Alluvium	Low
LS05	0.00	0.50	Dark greyish brown sandy subangular to subrounded fine to coarse GRAVEL of various lithologies with frequent shell fragments. Sand is medium to coarse.	Marine Beach Deposits	Low
LS05	0.50	1.50	Brownish red slightly silty fine to coarse SAND.	Estuarine Alluvium	Low
LS05	1.50	1.75	Firm brownish red slightly sandy CLAY. Sand is fine.	Estuarine Alluvium	Low
LS05	1.75	1.90	Brownish red slightly gravelly slightly silty fine to coarse SAND. Gravel is subrounded fine of various lithologies.	Estuarine Alluvium	Low
LS06	0.00	1.00	Dark brownish black sandy silty subangular to subrounded fine to coarse GRAVEL of various lithologies with frequent shell fragments. Sand is medium to coarse.	Marine Beach Deposits	Low
LS06	1.00	1.50	Firm reddish brown slightly sandy CLAY. Sand is fine to medium.	Possible Glacial Till	Low
LS07	0.00	0.80	Dark brownish black gravelly silty fine to coarse SAND with medium cobble content and abundant shell fragments. Gravel is subangular to subrounded fine to coarse of various lithologies.	Estuarine Alluvium	Low
LS07	0.80	1.00	Dark reddish brown gravelly silty fine to coarse SAND with low cobble content. Gravel is subangular to subrounded fine to coarse of various lithologies.	Estuarine Alluvium	Low
LS07	1.00	1.20	Firm reddish brown sandy CLAY with pockets of black fine to medium sand. Sand is fine to medium.	Possible Glacial Till	Low
LS08	0.00	0.90	Dark reddish brown slightly gravelly slightly silty fine to coarse SAND with frequent shell fragments. Gravel is subangular to subrounded fine to coarse of various lithologies.	Estuarine Alluvium	Low
LS09	0.00	0.80	Greyish brown slightly gravelly slightly silty fine to coarse SAND with low cobble content and abundant shell fragments. Gravel is subangular to subrounded fine to coarse of various lithologies. Cobbles are subrounded of various lithologies.	Estuarine Alluvium	Low

A2 Protocol Flowchart



A3 Preliminary Record Form

Port of Dundee Discoveries Preliminary Record Form	
Finder Details	
Vessel/Team/Contractor Name:	
Work Package:	
Date:	Time of compiling information:
Name of compiler (site champion):	
Name of finder (if different to above):	
Discovery Details	
Time at which discovery encountered:	
Original position of discovery on seabed/inter-tidal/on land (if known):	
• Latitude:	
• Longitude:	
• Datum (if different from WGS84):	
Position of vessel:	
• Latitude:	
• Longitude:	
• Datum (if different from WGS84):	
Notes on accuracy of position:	
Description of the find/obstruction/anomaly:	
Size/extent:	

Details of finds recovered:
Details of photographs, drawings or other records:
Details of treatment given to find(s):
Any other notes:
Date and time at which Nominated Contact informed:
Signed: Date: