



# **Nigg Eastern Inner Dock Quay Construction Environmental Management Document**

**May 2024**

# CONTROL SHEET

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# **1 OVERVIEW**

## **1.1 Introduction**

This Construction Environmental Management (CEM) Document has been produced by EnviroCentre Ltd on behalf of Global Energy Nigg (GEN), to facilitate environmental management during construction of the Eastern Inner Dock Quay.

## **1.2 Legislative Requirements**

GEN, as the licence holders, will have a duty to ensure that any construction activities do not contravene the environmental conditions of any licences (i.e. planning permission or marine construction licence) which approve the development proposals. Any contractors or site personnel employed to undertake construction works on behalf of GEN therefore need to understand the environmental requirements of these licenses to ensure the works remain compliant with the conditions. A copy of the licences which approve the construction works shall be provided to the preferred contractor prior to works commencing.

Prior to commencement of construction works, all relevant legislation, including requirements for licences, permits and / or consents, shall be identified and the appointed Contractor will be required to provide details of how compliance is to be achieved, as part of the Plan for delivering the CEM Document.

## **1.3 Construction Environmental Management Document**

The Construction Environmental Management (CEM) Document has been produced in accordance with The Highland Council Guidance Note on Construction Environmental Management Process for Large Scale Projects (August 2010). This Guidance Note sets out a robust Project Environmental Management Process (PEMP) for large scale projects. It describes the CEM Document as one of the key management tools for highlighting site sensitivities along with appropriate mitigation measures identified through various environmental studies as well as incorporating other requirements from consents and licences. It also provides a clear roadmap of the key roles and responsibilities of GEN and the Contractor during construction works.

## **1.4 Schedule of Mitigation**

A Schedule of Mitigation (SM) brings together all the identified mitigation measures to avoid or minimise the environmental effects of the development. It sets out in broad terms how mitigation can be appropriately managed and implemented during construction. The SM is based on general good management practises along with the measures identified through site specific environmental studies undertaken as part of the Environmental Impact Assessment (EIA) process.

The measures identified in the SM are not exhaustive and appropriate mitigation shall be identified as required by the Contractor to ensure the environment is protected.

The SM for Nigg Eastern Inner Dock Quay is provided within Section 4 of this document.

## **1.5 Construction Environmental Management Plans**

As noted above, the CEM Document is the overarching document which highlights the arrangements for environmental management at a high level.

The information and procedures provided in this CEM Document shall be used to develop a project specific CEM Plan which will provide focused mitigation and control measures in order to ensure the environment is protected during the construction works. The CEM Plan shall incorporate, but not be limited to, the identified mitigation measures detailed within the SM.

The CEM Plan is a working document which shall be regularly reviewed and updated throughout the lifetime of the construction phase in accordance with the procedures detailed in this document and the relevant consents.

## 2 PROJECT OVERVIEW

### 2.1 Project Aim

The project comprises the modification of the existing rock revetment forming the east side of the Inner Dock to form 290m of heavy-duty quayside 36m wide, faced with a vertical retaining wall to primarily facilitate the export of HV cable manufactured at the adjacent proposed factory directly onto cable installation vessels. When not in use for HV cable export activities the quay will support the existing operations on the site associated with the marine renewables and North Sea oil sectors.

### 2.2 The Site and Surrounding Area

The site is part of the wider Port of Nigg (PON) which comprises laydown and storage areas, fabrication and assembly shops, staff offices and a deep-water quay. Access to the Park can be gained via the B9715. Location map is provided in Drawing 677964-GIS007, Appendix A.

The site comprises the eastern side of the Inner Dock at the PON (Ordnance Survey Grid Reference NH 7940 6921). It is an existing dry dock with a sloped revetment covered with rock armour. Currently the Inner Dry Dock is flooded with the dock gate moored offshore at the adjacent Oil Terminal jetty. This situation is envisaged to remain for the foreseeable future and the proposed construction works would take place within a flooded Dry Dock (Hereafter the dock will be referred to as the Inner Dock).

PON sits at the mouth of the Cromarty Firth, where it meets the Moray Firth (known as 'The Sutors'). The Nigg Oil Terminal is located to the immediate north of PON, with the B9175 and Fearn Peninsula to the east. The B9175 forms a part of The National Cycle Network.

Nearby settlements include the hamlets of Balnabruich to the north east and Balnapaling to the south east, with Castlecraig approximately 1.5 km east, Nigg approximately 2 km north and in the wider area, Arabella Ankerville, Ballintore and the A9 further north. The village of Cromarty is located ~1.5 km south across the Cromarty Firth from PON. The Cromarty Ferry crosses the entrance to the firth to the west of The Sutors in the summer season from May to September.

A planning application (Planning Reference 23/04662/FUL) for the construction and operation of a High Voltage (HV) cable manufacturing factory and ancillary facilities has been approved by THC Planning in February 2024. The site of the factory is to the east of the B9175 opposite PON.

### 2.3 Environmental Sensitivities

The surrounding area contains several ecological designations within a 5km radius (refer to Drawing 677964-GIS008, Appendix A). These include the following:

- Cromarty Firth Site of Special Scientific Interest (SSSI), situated approximately 0.59km to the west of the site, designated for intertidal mudflats and sandflats;
- Cromarty Firth Special Protection Area (SPA), situated approximately 0.59km west of the site, designated for a range of non-breeding birds;
- Cromarty Firth Ramsar Site, situated approximately 0.59km west of the site, designated for intertidal mudflats and sandflats and waterfowl assemblage;
- Rosemarkle to Shandwick Coast SSSI, situated approximately 0.76km east of the site, designated for maritime cliffs, geological features and breeding birds;

- Moray Firth Special Area of Conservation (SAC), situated adjacent to the east of the site and designated for bottlenose dolphin; and
- Moray Firth SPA situated adjacent to the east of the site and designated for its breeding and non-breeding birds.

There are other designations at greater distance, for example the Dornoch Firth and Morroch More SAC, which are relevant to the marine ecology assessment but not in the immediate vicinity of the site.

## 2.4 Proposed Construction Works

Major work activities will include:

- Enabling works – Site surveys, site clearance, office relocation, installation of temporary office and welfare facilities, delineation of traffic and pedestrian routes, etc.
- Demolition - Removal of revetment material /structures forming the dock side slopes and quay furniture.
- Temporary structures – construction of temporary piling platform.
- Quay Wall Structure - Front quay wall, Rear anchor wall and Tie rods.
- Earthworks – Placement of import fill material behind new quay wall.
- Reinforced Concrete Works – Cope beam.
- Drainage – Positive Surface Water Drainage System.
- Electrical Works – High Mast Lighting System.
- Concrete Slab – levelling and construction of concrete surface slab.

## 2.5 Construction Timescales

It is anticipated that construction will commence in October 2024 with planned completion by early summer 2026. The development is planned to be operational in June 2026. The construction will be carried out for 20 months. The current construction sequence proposed is detailed in Table 2-1. The construction programme will be regularly updated throughout the period.

**Table 2-1: Current Construction Programme**

Month		Site Activity / Construction Phase
Start	End	
October 2024	January 2025	Preparatory Works including Design Acceptance, Site Investigation, Site Clearance, Enabling Earthworks, Formation of Temporary Working Platform
February 2025	February 2026	Pile installation
June 2025	December 2025	Tie rod installation
September 2025	November 2025	Concrete cope construction
September 2025	February 2026	Surface water drainage installation
September 2025	April 2026	Cathodic protection
January 2026	March 2026	Electrical installation and high mast lighting
February 2026	March 2026	Quay furniture (bollards, life buoys etc)

## 2.6 Access Routes / Points

The site will receive deliveries by sea and road during construction.

By road there will be two access points to minimise the impact on the B9175 which is part of the National Cycle Network and a well-used public road.

The first road access point will be at the main gate of PON where all main deliveries are anticipated to be received. The second access point is located further south where restricted access will be given for the sole purpose of importing material from Castlecraig quarry.

Construction materials arriving by sea will be offloaded at one of the existing quays at the PON. Once offloaded the material will be transported to the designated work or storage area.

## **2.7 Site Security**

For major construction works, a temporary construction compound shall be established within PON with the whole of the site works area segregated from other port activities. Once established the contractor shall manage / control the area through the Construction (Design and Management Regulations 2015 (CDM Regs).

The location of the temporary construction compound, the means of segregation and access routes are to be agreed with GEN and detailed within the project specific CEM Plan. Suitable signage to direct construction workers and deliveries shall be installed prior to commencement of site works.

## **2.8 Hours of Working**

With the exception of environmental management activity, in cases of emergency or unless agreed in writing with the Planning Authority, construction operations shall take place within the following hours;

- Monday to Saturday: 08:00 – 19:00; and
- Sunday: 08:00 – 13:00.

There will be no working on Sundays or Scottish Bank Holidays.

## **2.9 General Site Housekeeping**

### **2.9.1 Fire Safety**

- Open fires shall be prohibited at all times.
- Specific areas within the site shall be designated as smoking areas and shall be equipped with sealed containers for smoking waste.
- All necessary measures shall be taken to minimise the risk of fire.

### **2.9.2 General Maintenance**

- Waste shall be removed at frequent intervals and the site kept clean and tidy.
- Adequate toilet facilities shall be provided for all site staff.
- Food waste shall be stored in closed containers and removed frequently to avoid attracting vermin.



## **3 APPROACH TO ENVIRONMENTAL MANAGEMENT DURING CONSTRUCTION WORKS**

### **3.1 CEM Plan Implementation**

A CEM Plan shall be developed by appropriate personnel taking into account the information provided within the CEM Document to ensure that construction works are undertaken in such a way as to minimise environmental impacts and ensure compliance with legislation and licenses.

As noted in Section 1.5, the CEM Plan is a live working document which shall be regularly reviewed and updated throughout the lifetime of the associated construction project.

### **3.2 GEN and Contractor - Roles & Responsibilities**

#### **3.2.1 Philosophy**

By defining responsibilities across all levels of the project management team a common goal can be sought, with individuals named to deliver all aspects of the CEM Document. Compliance with the CEM Document and supporting CEM Plans is mandatory and shall be adhered to by all personnel employed on the project to achieve a mutual approach to environmental control.

#### **3.2.2 GEN Client Team**

During construction, GEN has responsibility for delivering the commitments defined in the CEM Document.

GEN shall act as the primary contact with all statutory bodies during construction.

GEN shall regularly monitor works on-site and ensure that all conditions, committed mitigation and identified best practice are delivered in accordance with the CEM Document and project-specific CEM Plan.

GEN has the authority to halt any activity where environmental commitments are not being successfully delivered, where legal requirements are being breached or where there is a significant risk to the environment.

GEN shall report any environmental incidences to the consenting body within 24 hours. All instances of suspected environmental crime shall be reported immediately to the Police.

GEN, as the client, shall provide the name of a key person within their organisation, who shall liaise directly with the contractor and relay relevant information to GEN.

The GEN's key person shall be supported by GEN's consultant engineer and environmental consultant who shall act as third-party reviewers for GEN with other parties inputting as required. This support shall include an Environmental Clerk of Works (ECoW) who shall audit the contractor's environmental compliance and report to the GEN Client Team.

### 3.2.3 GEN ECoW Role and Responsibilities

The Association of Environmental and Ecological Clerks of Works (AEECW) defines the Environmental Clerk of Works (ECoW) as:

“An environmental or construction professional with direct responsibility for monitoring compliance with planning consents, environmental permits, legislation and mitigation.”<sup>1</sup>

The ECoW shall:

- Have professional membership and thereby obliged to follow a professional code of conduct;
- Have the relevant construction and natural environment qualifications and experience;
- Be able to influence decisions on site (by educating the relevant site staff; and
- Be multi-disciplinary.

The specific responsibilities of the GEN ECoW are:

- Act as direct liaison between the GEN project team and the consenting bodies / regulators;
- Undertake environmental audits of the construction works to ensure the contractor is adhering to the CEM Plan and identify improvements if necessary. The audits will be undertaken on a weekly basis when construction activities are identified as having a higher environmental risk;
- The authorisation to halt works if necessary;
- Provide reports to GEN on the findings of each audit using a standard form and a traffic light prioritisation system. The reports shall document the advice given, the actions taken and the ultimate outcome in relation to legislative or other requirements; and
- In the event of any environmental or ecological issues identified provide advice as required to the GEN client team.

### 3.2.4 The Contractor

The contractor should provide reports as required to GEN Project Team confirming the status of the project, implementation of environmental requirements, environmental audits, monitoring and any environmental incidents on a regular basis to be determined between the relevant parties.

The contractor shall develop a project specific CEM Plan which, if required, shall be submitted to the Regulatory Authorities for approval prior to works commencing on site. Site works shall not commence until the CEM Plan has been approved.

The contractor shall be responsible for all site staff (at all levels) adhering to any environmental policies or sensitivities and the requirements of the approved CEM Plan. The CEM Plan should therefore include details of how the contractor intends to ensure all staff employed in the execution of the works fully understand all environmental requirements and are properly equipped to implement these requirements.

The CEM Plan should also include the details of key individuals working on site, their job roles and contact details. The communication channels that should be followed by all site staff, including who has responsibility for informing other parties on site, and how to respond in the event of an environmental incident shall also be clarified in the document.

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<sup>1</sup> Burns, O and Jackson-Matthews, S. (2016). Environmental Clerks of Works: Good Practice Guidance. Version 1 Final – January 2016.

### **3.2.4.1 Contract / Project Manager**

The contractor shall identify a Contract / Project Manager within the CEM Plan who shall liaise / report directly to the GEN client team. The Contract/Project Manager's specific environmental responsibilities include (but not limited to):

- Demonstrate positive environmental leadership and commitment through actively supporting the initial set-up and sustaining effective environmental management and monitoring measures;
- Ensure adequate provision of competent resources, including the appointment of a suitable person (i.e. HSEQ Manager or similar) who shall be responsible for auditing the construction works on a daily basis, to ensure the requirements of the CEM Plan are met;
- Ensure all consents and licenses are in place prior to work commencing; and
- Report any environmental incidences or crime immediately to GEN within 24 hours. All instances of suspected environmental crime will be reported immediately to GEN.

### **3.2.4.2 Site Manager / Supervisor**

The Site Manager / Supervisor's specific environmental responsibilities include (but not limited to):

- Work with the HSEQ Manager (or similar) to ensure the CEM Plan is implemented and updated as necessary;
- Delivery of toolbox talks for the education of construction personnel;
- Report to the Contract / Project Manager on a weekly basis details of:
  - Any non-compliance identified on site;
  - Monitoring information relating to the significant environmental aspects on site;
  - Preventative actions reports; and
  - External environmental communications reports; and
- Inform the Contract / Project Manager of any significant deviations from the agreed methods of working or environmental incidents/crimes as soon as practicably possible.

### **3.2.4.3 HSEQ Manager (or Similar) Responsibilities**

The specific environmental responsibilities of the HSEQ Manager (or similar) are (but not limited to):

- Oversee the implementation and organisation of the CEM Plan on a day-to-day basis;
- Ensure general environmental good practice is followed across the entire project construction site at all times, by all personnel and have the authority to halt works if necessary;
- Report any environmental non-compliances to the Site Manager / Supervisor and provide advice as required;
- Provide reports to the contractors team on the environmental status of the construction works including compliance;
- Delivery of toolbox talks, posters, information leaflets, video, digital or online applications for the education of construction personnel;
- Attendance of all relevant Contractor meetings;
- The contractor's emergency contact for any environmental or ecological issues that arise on the construction site; and
- Report any emergencies or suspected environmental crime immediately to the Contract / Project Manager.

#### **3.2.4.4 All Site Personnel**

All personnel working on the project are responsible for the environmental control of their own work and shall perform their duties in accordance with the requirements of the CEM Plan. No deviations are permitted without the written authority of the Contract / Project Manager.

All site personnel shall (but not limited to):

- Implement control measures described within the CEM Plan; and
- 'Stop the job / activity' if there is potential for pollution occurring and notify the Site Manager / Supervisor.

### **3.3 Training & Raising Awareness**

All contractors and subcontractors shall be selected with due consideration of qualifications and experience.

Environmental training shall be undertaken to ensure all site personnel have the appropriate knowledge to successfully implement the Construction Method Statement (CMS), the CEM Plan and the environmental requirements of the project.

The training programme shall be developed by the contractor and form part of the construction project specific CEM Plan. As a minimum it is anticipated to include the following:

- All site personnel to attend a site induction prior to commencing work at the site. Key environmental considerations include waste management, working in or near watercourses, surface water pollution and control, ecology, dust management and noise management, emergency preparedness and responses should be included;
- Weekly sessions to cover specific relevant issues appropriate to the work being undertaken at the time;
- Any specific training requirements for key identified roles;
- Records of all training required and provided to all employees should be maintained and made available to GEN for inspection;
- The use of Information posters and leaflets, video and digital or online applications should also be considered; and
- Commitment to undertake a toolbox talk in the event of an environmental incident or complaint.

### **3.4 Complaints & Enquiries**

The formal procedure for handling project complaints/concerns shall be agreed between the Contractor and Client Team prior to works commencing. The contractor's CEM Plan shall detail the agreed procedure in the event a complaint is received.

### **3.5 Monitoring, Continual Improvement & Review**

The Contractor shall ensure that the CEM Plan is reviewed regularly (and no less frequently than monthly) to ensure that:

- The objectives and requirements of the CEM Plan is still valid and are being met;
- Identify any negative impacts from construction activities;

- Assess the effectiveness of control measures;
- Identify if further controls/corrective action is required; and
- Forthcoming activities are reviewed and any necessary amendments to the CEM Plan are put in place before the relevant work begins.

### **3.6 Inspection & Audit**

GEN representatives shall conduct site inspections on a regular basis to confirm that processes are being carried out effectively. A written report of these inspections shall be disseminated to the relevant contractor management levels for review and action.

### **3.7 Non-conformance & Corrective Action**

If criteria within the CEM Plan are not fulfilled and appropriate corrective action(s) is/are not taken a non-conformance may be raised by the Contractor or Client representatives. Examples of circumstances where this may arise include:

- Receipt of a complaint regarding pollution or other environmental impacts caused by the project;
- Departure from approved or agreed procedures; or
- Non-conformance identified as a consequence of any self-assessment, formal audit or other environmental survey or inspection.

The non-compliance will be notified to the Client representative as soon as practicably possible. Should it be identified that there is potential for mitigation measures or legislation to be breached the work or activity shall stop immediately. Work shall only recommence once measures are implemented to ensure the situation is remedied.

Following notification, a non-conformance/corrective action report shall be issued to the Contractor by the Client representative. It is the responsibility of the Contractor to immediately initiate corrective actions (if not already done so) and, once completed, provide details of the actions undertaken on the non-conformance/corrective action report and return it signed to the Client's representative within an agreed timeframe. If the non-conformance is considered to breach legislative requirements, the breach should be reported to the appropriate public body.

Corrective action may include changes to work instructions, alterations to the CMS, further staff training etc. Non-conformances should be reviewed by the appropriate Client representative and form part of construction meeting agendas.

### **3.8 Significant Incident Reporting Procedures**

In the event of a potential harmful or polluting incident, spillage or discharge, the actions listed below shall be followed to notify the appropriate organisations of the occurrence:

- Should an incident occur, the Contract / Project Manager shall inform the Client representative of the occurrence of an incident at the site as soon as practicably possible following awareness of the incident;
- The Contract / Project Manager shall notify the Client representative in writing the next working day after the incident, detailing the time and nature of the incident; and
- The Contract / Project Manager shall investigate the incident and notify the Client representative of the outcome of the investigation and any mitigation measures required as soon as practicably

possible. The outcome of the investigation shall be reported to the client representative within 3 days of reporting the incident.

### **3.9 Control of Records**

Environmental records, including waste management records, shall be maintained in accordance with the respective company procedures and legal requirements. The records shall be maintained, in either hard copy or electronic format, as required by the individual procedure that the records relate to, in such a way that they are readily identifiable, retrievable and protected against damage, deterioration or loss. The individual procedure that the records relate to also specifies the retention time for the records and who has the authority to dispose of them.

### **3.10 Change Control Processes**

Where any amendments and variations to the project-specific CEM Plan are required, either as a result of changes to construction methods, design or mitigation the method of recording the change shall be agreed between the Contractor and GEN and documented in the Contractor's CEM Plan.

## 4 SCHEDULE OF MITIGATION

**Table 4-1: Schedule of Mitigation**

Feature / Topic	Mitigation	Timing
<b>General</b>		
Construction Environmental Management Plan	<p>Once approved by the Regulatory Authorities, the CEM Document shall be used by the principal contractor to develop a detailed CEM Plan which will provide focused mitigation and control measures in order to ensure the environment is protected during the construction works. The CEM Plan shall incorporate, but not be limited to, the identified mitigation measures detailed within the Schedule of Mitigation. The CEM Plan will be submit to the statutory authorities for approval prior to any Works commencing on site.</p> <p>An independent Environmental Clerk of Works (ECoW) will monitor the construction works to ensure that the CEM Plan and associated mitigation measures are being implemented effectively. This may take the form of site visits, inspections and audit of the Principal Contractors records.</p>	Pre-Construction and Construction
Best Practice	Best practice will be adopted throughout all phases of development, following current guidance as listed in the EIAR. The programme of works, including timings and methods, will be planned, monitored and managed to minimise the potential negative environmental impacts.	Construction
Operational Environmental Management	The quay once operational is to be incorporated into the existing site wide operational integrated management systems and Operational Environmental Management Plan.	Operation
Pollution Incident Response Plan	A Pollution Incident Response Plan will be set out in the CEM Plan relating to the construction of the proposed development, statutory requirements and identification of areas of highest sensitivity. This will provide site spill response procedures, emergency contact details and equipment inventories and their location. All staff will be made aware of this document and its content during site induction. A copy will be available in the site office at all times.	Construction
Vessel Movements and Navigation	Any marine traffic accessing the port will adhere to the POCF Marine Safety Management Plan which is enforced by POCF as the Statutory Harbour Authority.	Construction and Operation

Feature / Topic	Mitigation	Timing
<b>Chapter 5: Airborne Noise</b>		
General Noise Management	<ul style="list-style-type: none"> <li>The Principal Contractor to develop a site specific Construction Noise Management Plan as part of the CEM Plan to be submitted to the council for approval prior to work commencing;</li> </ul>	Pre-construction and Construction
Mobile Plant	<ul style="list-style-type: none"> <li>Review and update of the existing Operational Noise Management Plan taking into account any recommendations from the shore to ship power feasibility study which GEN has committed to undertaking in support of the Sumitomo Electrics cable factory planning application; and</li> <li>Consideration of utilising electric powered mobile and fixed plant on site.</li> </ul>	Operation
<b>Chapter 6: Biodiversity</b>		
Construction Environmental Management Plan	<p>Standard best practice mitigation measures as mentioned in the CEM Plan and Site Waste Management Plan (SWMP). The following good practice guidelines shall be adhered to and incorporated into the CEMP:</p> <ul style="list-style-type: none"> <li>GPP 5: Works and maintenance in or near water;</li> <li>GPP 6: Working at construction and demolition sites;</li> <li>PPG 7: Safe Storage – The safe operation of refuelling facilities;</li> <li>GPP 21: Pollution incident response planning; and</li> <li>GPP 22: Dealing with spills.</li> </ul>	Construction
	<p>An independent Ecological/Environmental Clerk of Works (ECoW) will be employed to audit and report on adherence to the CEMP as well as any other relevant planning consents, environmental permits, legislation and mitigation.</p> <p>All personnel on the site should be made aware of the environmental sensitivities of the site (proximity to designated sites) via the site induction and additional task specific toolbox talks as required.</p>	Construction
Biosecurity Plan	<p>The principal contractor will produce and implement a biosecurity plan throughout the duration of works. This will include the cleaning of equipment and plant machinery prior to deployment to reduce risk of transmitting non-native and invasive species. The plan shall form part of the CEM Plan and as such will be submitted to the planning authority and other relevant consultees for approval prior to works commencing and implementation would be audited by the ECoW.</p>	Construction
Speed Limit	<p>A strict speed limit for onshore traffic of 15 mph will be implemented on site to reduce risk of collision with protected species.</p>	Construction
Ballast Water	<p>Industry standard ballast water management practices to be adhered to. Note: Out with the control of Port of Nigg.</p>	Construction and Operation



Feature / Topic	Mitigation	Timing
Biodiversity Net Gain	An area of greenspace within the wider Nigg Port landownership will be improved. This is currently assessed as being other neutral grassland in moderate condition. Actions detailed within the Biodiversity Enhancement and Management Plan (BEHMP) should increase the condition to good.	Operation
	The installation of invertebrate shelters or bug hotels within the area of neutral grassland to increase foraging provision for species such as bats and birds present within the wider locale.	Operation
Monitoring	Monitoring of the habitat will be undertaken, to determine if the aims of the BEMP are being met. This includes repeating the condition assessment, including collection of quadrat data and fixed photography to assess changes over time.	Operation
	Following the implementation of management, monitoring should be undertaken annually for the first three years to determine successful establishment. Management and need for further monitoring will be reviewed after each monitoring period.	Operation
	To assess the impact of the habitat enhancement on the invertebrate assemblage it is also recommended that insect surveys are conducted. Flower-Insect Timed Count (FIT) methodology <sup>2</sup> employed within the UK Pollinator monitoring scheme is easy and repeatable and could be used to monitor changes in pollinator presence within the habitat.	Operation
<b>Chapter 7: Traffic Assessment</b>		
Construction Traffic Management Plan (CTMP)	A Framework CTMP (refer to Technical Appendix 6.1, Volume 3 of the EIAR) has been developed to support the planning application for the proposed Development. It is expected this document will be updated by the appointed contractor. The updated CTMP would be submitted to THC prior to any construction commencing on-site. The CTMP would detail any mitigation measures deemed necessary to remove, reduce or offset any temporary adverse effects of construction vehicles and operations and would detail information on construction times and haulage routes.	Construction
Considerate Constructors Scheme	<p>The construction Site would be registered with the Considerate Constructors Scheme which requires constructors to comply with a Code of Considerate Practice, and seeks to:</p> <ul style="list-style-type: none"> <li>• Minimise any disturbance or negative impact (in terms of noise, dirt and inconvenience) sometimes caused by construction Sites to the immediate neighbourhood;</li> <li>• Eradicate offensive behaviour and language from construction sites; and</li> <li>• Recognise and reward the constructor's commitment to raise standards of Site management, safety and environmental awareness beyond statutory duties.</li> </ul>	Construction
Fencing and Gates	The existing galvanised palisade gate at the entrance to the site would be maintained for safety purposes and to control vehicles entering and exiting the Site.	Construction

<sup>2</sup> <https://ukpoms.org.uk/fit-counts>

Feature / Topic	Mitigation	Timing
	Existing security fencing would also be maintained around the perimeter of the Site to protect the equipment store on the Site and control access given the type of use.	
Routing	An internal route system will be established to ensure vehicle turnover is optimised. The existing gates are a suitable distance from the public road to ensure vehicles can be accommodated off the adopted road network. A banksman would be responsible for ensuring the safe manoeuvring of HGVs into, out of and within the Site.	Construction
	If deemed necessary, the construction vehicles could also be installed with GPS tracker systems to ensure the defined haulage route is maintained. However, given the short direct journeys, particularly associated with the crushed rock deliveries from Castlecraig Quarry, it would be difficult for the vehicles to take alternative paths.	Construction
Dust nuisance	Covering HGVs to / from the Site.	Construction
	On-site dust suppression measures, such as, spraying or hosing of material prior to excavation and loading.	Construction
Vehicle Breakdown	The Principal Contractor to consider measures to assist with delivery vehicle break-downs to minimise network disruption	Construction
Signage	Signage will be placed to advise all network users that an increased number of HGV's will be present in the area.	Construction
<b>Chapter 8: Water Environment and Coastal Process</b>		
Construction Environmental Management Plan (CEMP)	The CEM Plan to include surface water management and pollution prevention measures (e.g. Pollution Prevention Plan) and will be in place during construction and operation. The CEMP will remain a live document and will be continually updated as the work progresses.	Construction
Licencing / Authorisations	All activities above Mean High Water Springs (MHWS) with potential to affect the water environment require to be authorised under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR). The level of authorisation required is dependent on the anticipated environmental risk posed by the activity to be carried out. These activities could include construction drainage. Construction activities below MHWS with potential to affect the water environment require to be authorised under a Marine Licence.	Construction
Surface Water Management	The surface water drainage will be designed to ensure that there are no untreated surface water discharges directly to surrounding coastal waters. It is proposed to replicate natural drainage around construction areas and to use source control to deal with rainwater in proximity to where it hits the ground in line with current Sustainable Drainage Systems (SuDS) guidance. Suitable prevention measures will be in place at all times to prevent the release of pollutants to the water environment, including adjacent coastal waters. These will be regularly inspected and maintained to ensure optimal performance.	Construction

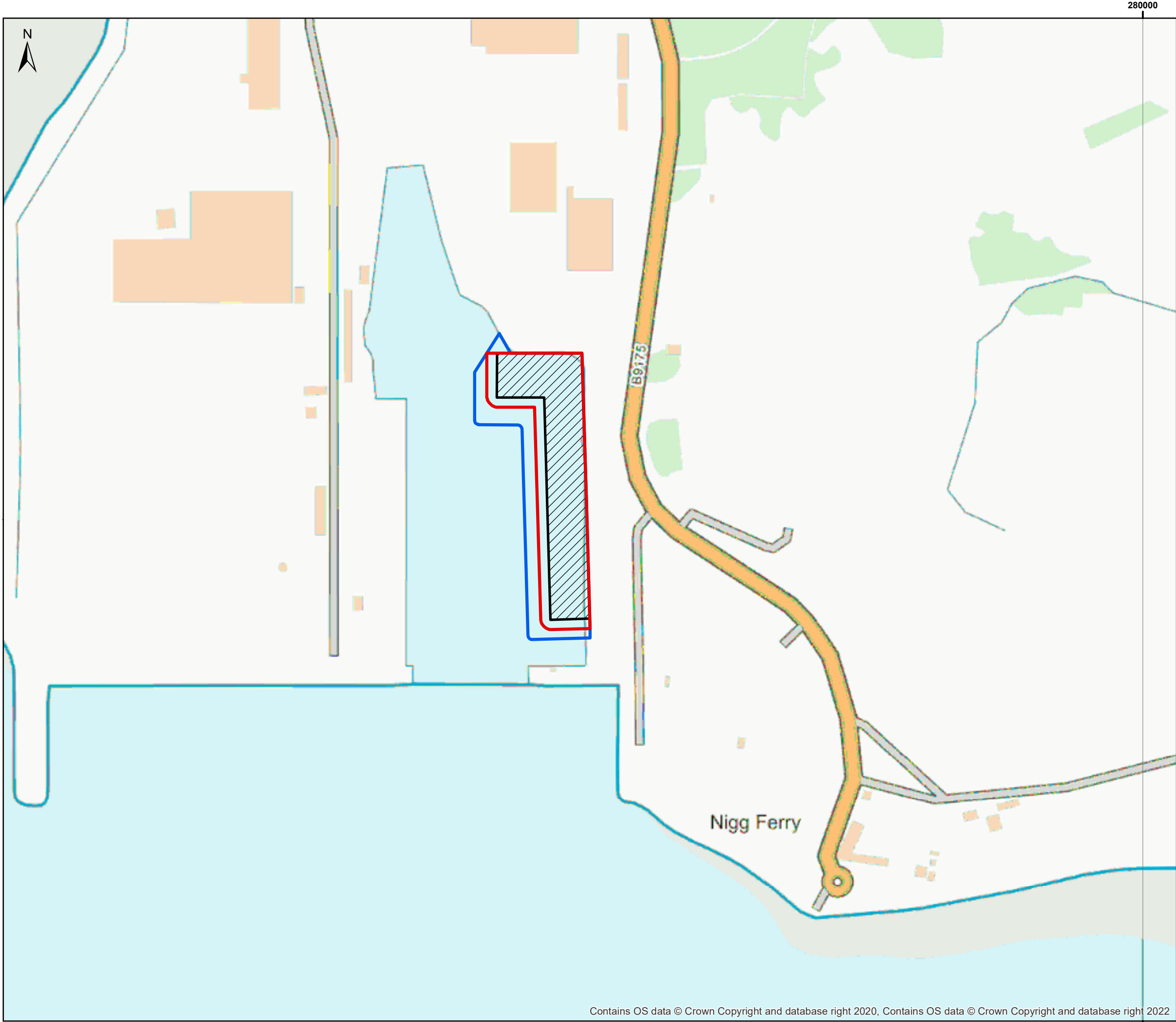
Feature / Topic	Mitigation	Timing
Site Compounds	Run-off from compounds will be captured and passed through construction drainage features prior to discharge. Foul drainage will either be contained in a closed system and disposed of at a suitable off-site facility with private treatment and discharge or, where possible, directed via a connection to the PON foul drainage treatment system.	Construction
Concrete	<p>In the case that concrete batching was to be undertaken on-site the following mitigation measures would be implemented to minimise the potential impact of concrete batching on the water environment in line with GPP6:</p> <ul style="list-style-type: none"> <li>• Concrete batching will take place on an impermeable designated area and at least 10m from any waterbody.</li> <li>• Equipment and vehicles will be washed out in a designated area that has been specifically designed to contain wet concrete/ wash water.</li> <li>• A closed loop system will be used for wash waters. Wash waters will be stored in a contained lined pond for settlement before being reused (e.g. for mixing and washing).</li> <li>• No discharge of wash waters will occur on-site. All excess wash water that cannot be reused will be disposed of off-site.</li> </ul> <p>The following mitigation is proposed for concrete handling and placement:</p> <ul style="list-style-type: none"> <li>• Pouring of concrete will take place within well shuttered pours to prevent egress of concrete from the pour area.</li> <li>• The CEM Plan will include a Pollution Incident Response Plan, and drivers of vehicles carrying concrete will be informed so as to raise awareness of potential effects of concrete and of the procedures for clean-up of any accidental spills.</li> <li>• Concrete acidity (pH) will be as close to neutral (or site-specific pH) as practicable as a further precaution against spills or leakage.</li> </ul>	Construction
Oil, Fuel, Site Vehicle Use and Storage	<p>The risk of oil contamination will be minimised by good site working practice (further described below) but should a higher risk of oil contamination be identified then installation of an oil separator will be considered.</p> <p>The storage of oil is considered a Controlled Activity which will be deemed to be authorised if it complies with the Regulations. The mitigation measures to minimise any risk of contaminant release are in line with SEPA PPG and GPP documents and include the following:</p> <p>Storage:</p> <ul style="list-style-type: none"> <li>• Storage for oil and fuels on site will be designed to be compliant with GPP2 and GPP8.</li> <li>• The storage and use of loose drums of fuel on site will not be permitted.</li> <li>• Bunded tanks will provide storage of at least 110% of the tank's maximum capacity.</li> </ul>	Construction

Feature / Topic	Mitigation	Timing
	<p>Refuelling and maintenance:</p> <ul style="list-style-type: none"> <li>• Fuelling and maintenance of vehicles and machinery, and cleaning of tools, will be carried out in a designated area where possible in line with PPG7.</li> <li>• Multiple spill kits will be kept on site.</li> <li>• Drip trays will be used while refuelling.</li> <li>• Regular inspection and maintenance of vehicles, tanks and bunds will be undertaken.</li> </ul> <p>Emergency procedure: The Pollution Incident Response Plan will include measures to deal with accidental spillages.</p>	
Groundwater Contamination	<p>In the unlikely event that potential groundwater release of hydrocarbons is detected during piling operations, sampling and laboratory analysis will be undertaken. Should chemical analysis indicate presence of hydrocarbon release, or any associated deterioration in groundwater quality, discussions will be held with the appropriate regulatory authorities i.e. THC and SEPA in order to design and implement measures to prevent impacts on coastal waters.</p>	Construction
Monitoring and Enhancement	<p>Specific auditing and monitoring plans will be developed by the contractor and will cover the following:</p> <ul style="list-style-type: none"> <li>• The contractor’s own Environmental Management System;</li> <li>• The CEM Plan, schedule of mitigation register, relevant legislation and industry good practice;</li> <li>• All project activity;</li> <li>• Roles and responsibilities for those undertaking audits and monitoring;</li> <li>• Frequency of inspection activities (i.e. daily, weekly, monthly);</li> <li>• Process to deal with corrective actions/non-compliance; and</li> <li>• Reporting procedures (including non-compliance).</li> </ul>	Construction/
Operational Environmental Management Document (OEMD)	<p>An Operational Environmental Management Document (OEMD) will be in place throughout the operational phase. Best practice will be followed throughout the operational phase, with reference to the SEPA Guidance for Pollution Prevention (GPPs), and best practice guidance.</p>	Operational
Surface Water Management	<p>It is proposed that drainage of surface water will adopt SuDS principles and be by means of surface mounted drainage channels which will include catch pits at changes in direction and the outflow will pass through suitable oil separators with sampling chambers included as detailed in Technical Appendix 7.2.</p>	Operational

Feature / Topic	Mitigation	Timing
	<p>Details of the operational surface water management proposals and methodology will be included within the OEMD and will be submitted to SEPA’s operations team for agreement consent. Plans of the surface water management system will be located within the Site office, with foul water systems clearly marked.</p> <p>Where a site use or development proposal is such that it will require a Pollution Prevention and Control (PPC) authorisation from SEPA, then specific processes, techniques and technologies will be included within the surface water management system in that location in order to meet the requirements of the PPC authorisation. Such measures would be in line with best practice guidance.</p>	
<b>Chapter 9: Air Quality</b>		
Construction Dust Management	The Principal Contractor to incorporate standard industrial practises to reduce construction dust emissions within the CEM Plan.	Construction
<b>Chapter 9: Archaeology and Cultural Heritage</b>		
Protocol for Archaeological Discoveries	A Protocol for Archaeological Discoveries (PAD) has been developed and included in the CEM Document. The PAD provides a framework to facilitate the reporting of unexpected or chance archaeological finds should any be encountered during the works.	Construction
<b>Chapter 9: Carbon Assessment</b>		
Construction Material	<ul style="list-style-type: none"> <li>Using materials with low embodied carbon impacts: Materials such as recycled steel for reinforcements and timber from sustainably managed forests, would help to minimize the carbon footprint of the proposed development.</li> </ul>	Construction
	<ul style="list-style-type: none"> <li>Sourcing construction materials locally: It would result in reduction of transportation distances, which in turn cuts down on carbon emissions associated with transportation.</li> </ul>	Construction
	<ul style="list-style-type: none"> <li>Implementing efficient construction processes: Construction techniques resulting in minimizing the energy consumption and waste generation would reduce the overall environmental impact.</li> </ul>	Construction
Construction Process	<ul style="list-style-type: none"> <li>Reducing wastage during the construction process: It is crucial for minimizing environmental impact and maximizing resource efficiency. Strategies such as careful material planning, recycling and reusing construction waste, and implementing lean construction practices can significantly decrease the amount of waste generated on-site, leading to a more sustainable construction process.</li> </ul>	Construction

Feature / Topic	Mitigation	Timing
<b>Chapter 9: Material Assets and Waste</b>		
Waste Hierarchy	The waste hierarchy will be employed throughout the construction works and will aim to avoid, or minimise waste production where possible, re-use material where possible, segregate waste which cannot be reused for recycling where available and implement the correct methods of disposal should none of the aforementioned methods be feasible.	Construction

# A DRAWINGS



**Legend**

- Planning Boundary
- Marine Boundary
- Permanent Quay Footprint

Do not scale this map  
**Client**  
 Global Energy Nigg Ltd

**Project**  
 Eastern Inner Dock Quay

**Title**  
 Site Location

**Status**  
 FINAL

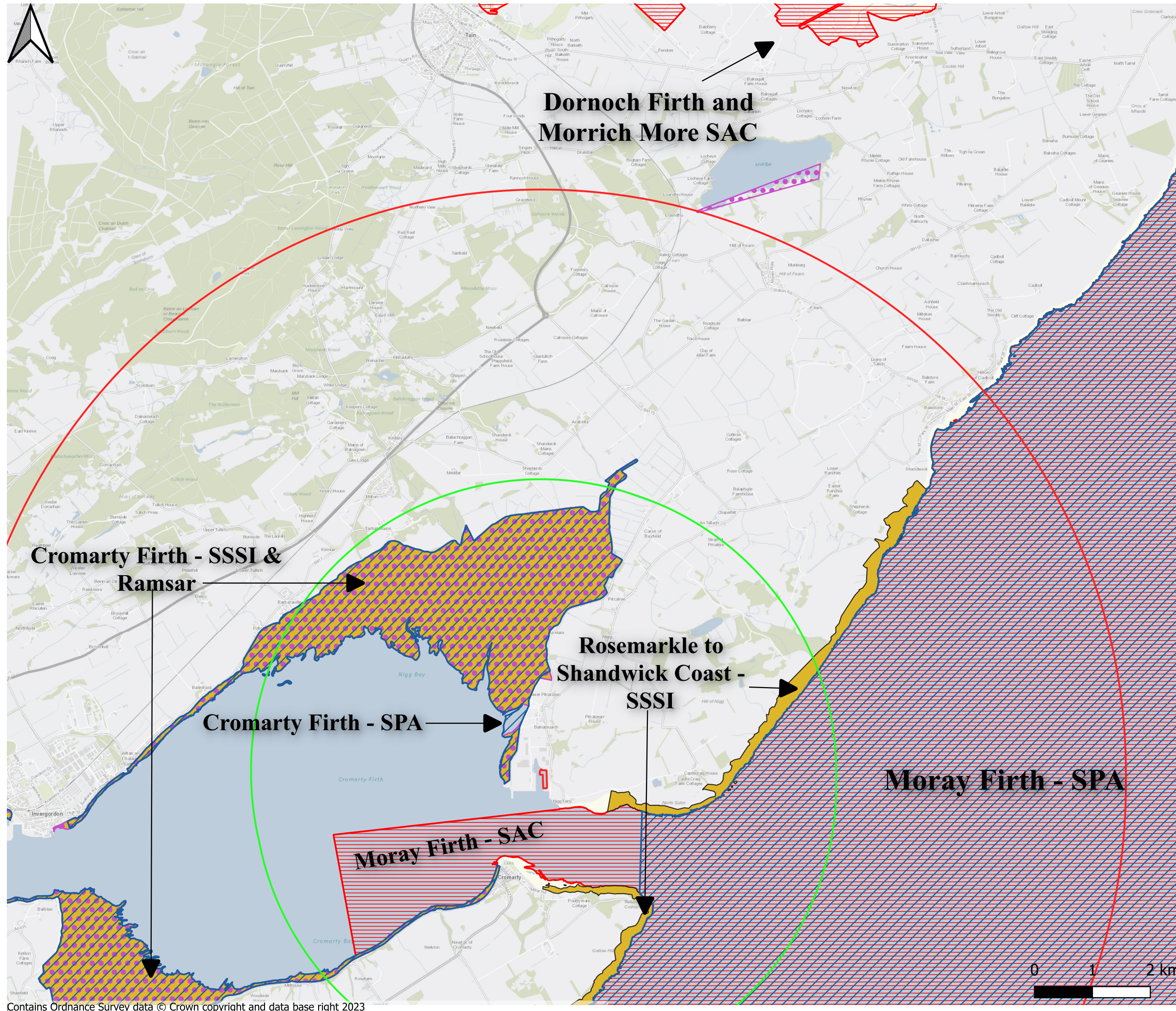
<b>Drawing No.</b> 677964-GIS007	<b>Revision</b> -	<b>Date</b> 25 Jul 2024
<b>Drawn</b> CP	<b>Checked</b> EC	<b>Approved</b> EC

**Scale**  
 1:4,000 @A3

Rev	Date	Amendment	Initials
A	1 Aug 24	Revised Site Boundary	CP






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### Legend

-  Site Boundary
-  Special Protection Areas
-  Ramsar Wetlands
-  Sites of Special Scientific Interest
-  Special Areas of Conservation

Do not scale this map

**Client**  
Global Energy Nigg Limited

**Project**  
Eastern Inner Dock Quay

**Title**  
Environmental Designations

**Status**  
FINAL

<b>Drawing No.</b> 677964-GIS008	<b>Revision</b> A	<b>Date</b> 13 12 2023
<b>Drawn</b> JSH	<b>Checked</b> EC	<b>Approved</b> EC

**Scale**  
1:64,042 @ A3

Rev	Date	Amendment	Initials
A	01 Aug 2024	Revised Site Boundary	JSH



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# **B      PROTOCOL FOR ARCHAEOLOGICAL DISCOVERIES**

## Archaeological Reporting Protocol

The site is considered to have a low archaeological potential and no significant effects are anticipated upon the designated heritage assets within the study area. However, the following protocol shall be adopted to ensure that during construction should any unexpected archaeological remains are discovered they are reported and investigated. This approach follows guidance detailed within The Crown Estate's Protocol for Archaeological Discoveries (PAD) published by Wessex Archaeology<sup>3</sup>.

PADs are systems of monitoring for unexpected or incidental finds relating to the historic environment. PADs are intended to apply to development, construction and installation activities where an archaeologist is not present on site and therefore not immediately available, i.e. in those instances where a traditional archaeological scheme of works is not in place (such as a watching brief, evaluation, etc.). PADs address both archaeological 'finds' and 'anomalies'. Finds are defined as an object or site with archaeological potential or significance, where as an anomaly is a signature that could be visual or digital (e.g. geophysical) that indicates a possible find or site which will require further investigation.

Consistent with the Crown Estate's guidance, the following shall be implemented:

- a) All site personnel shall be briefed on the significance of archaeological finds and anomalies;
- b) All finds shall be immediately reported to the Site Manager and ECoW; and
- c) In the event of a find, all works shall be halt and the ECoW shall process the find in accordance with The Crown Estate's guidance and supporting materials<sup>4</sup>.

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<sup>3</sup> The Crown Estate (2014). *Protocol for Archaeological Discoveries: Offshore Renewables Projects*. Published by Wessex Archaeology, Salisbury, on behalf of The Crown Estate.

<sup>4</sup> <http://www.wessexarch.co.uk/projects/marine/tcerenewables/protocol-awareness-programme>