Habitats Regulations Assessment: Screening

Loch Carnan Jetty Refurbishment
South Uist, Outer Hebrides

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Document history

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P2024-13-HRA-R1	22 August 2024	Draft for review
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1. Introduction

Certas Energy operates the fuel depot at Loch Carnan on South Uist in the Outer Hebrides, which services the island community and other business fuel source requirements.

As a result of structural investigations, since April 2024 vessel deliveries to the depot via the existing jetty have been subject to operational restrictions as a precautionary measure due to safety concerns over the continued use of the jetty. Recent detailed investigations have identified the need for urgent like-for-like structural repairs.

This Habitats Regulations Assessment (HRA) considers the proposed jetty refurbishment works in terms of likely significant effects upon European sites, both alone and in combination with other plans and projects.

2. Requirement for a Habitats Regulations Assessment

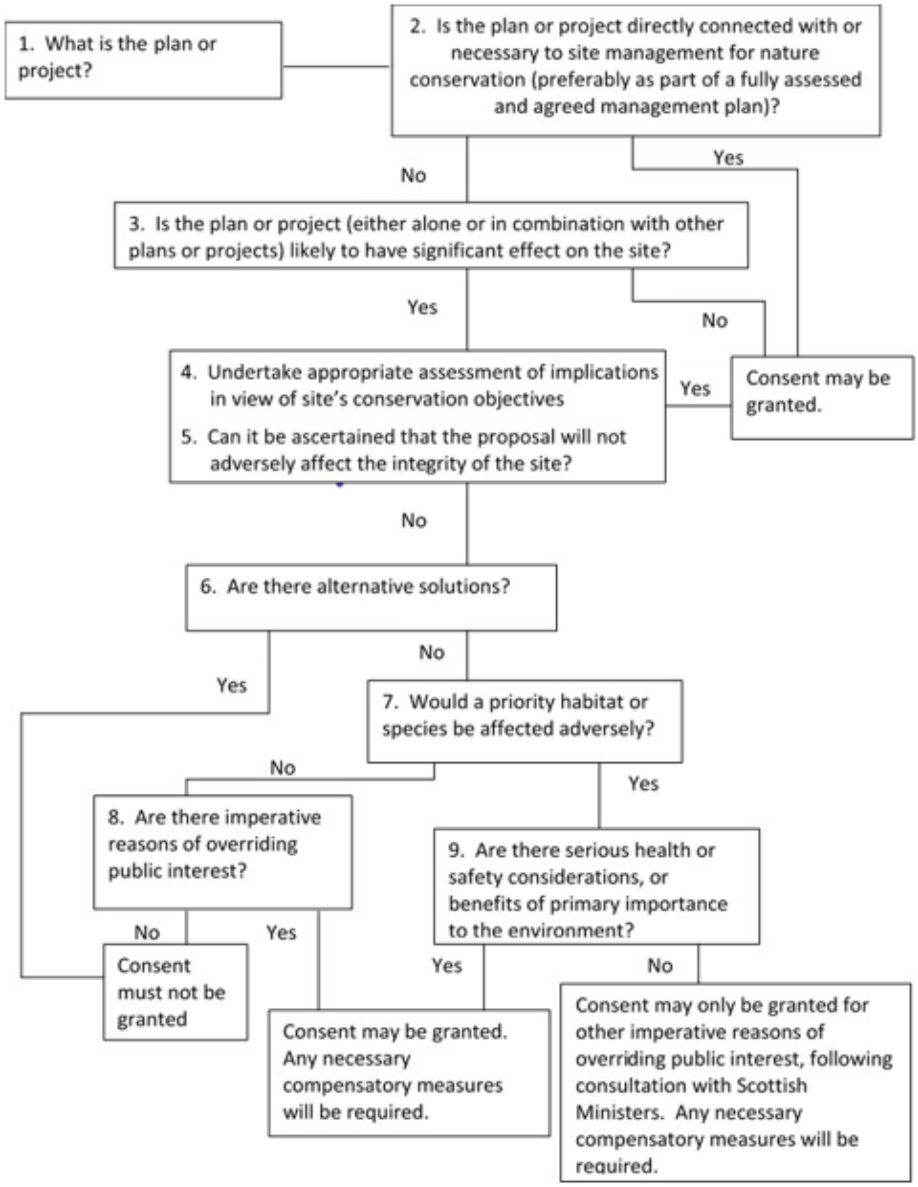
The European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Flora and Fauna (the Habitats Directive) protects habitats and species of European nature conservation importance. The Habitats Directive establishes a network of internationally important sites designated for their ecological status. These are referred to as European Sites, comprising Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). SPAs are classified under the Council Directive 79/409/EEC on the conservation of wild birds, the 'Birds Directive'.

In Scotland, the Habitats Directive is translated into specific legal obligations by the Conservation (Natural Habitats, &c.) Regulations 1994 ('the Habitats Regulations'). The Habitats Regulations have been amended in Scotland, most recently in 2019 as a result of the UK leaving the European Union. These amendments mean that the requirements of the Habitats and Birds Directives continue to apply to how European sites are designated and protected.

Articles 6 (3) and 6 (4) of the Habitats Directive require HRA to be undertaken on proposed plans or projects which are not necessary for the management of the site but which are likely to have a significant effect on one or more European sites either individually, or in combination with other plans and projects.

The purpose of HRA is to assess the impacts of a project, in combination with the effects of other plans and projects, against the conservation objectives of a European site and to ascertain whether it has likely significant effects (Stage 1 – Screening). If no likely significant effects are predicted on European sites, or effects can be avoided, cancelled or reduced through the introduction of appropriate mitigation measures, there is no need for an Appropriate Assessment to be carried out (Stage 2). If effects are judged likely or uncertainty exists, the precautionary principle applies and an Appropriate Assessment is required to determine if the plan would adversely affect the integrity of the European site(s). Where there are adverse impacts, an assessment of mitigation options is carried out, and if these mitigation options cannot avoid adverse effects then development consent can only be given if stages 3 and 4 are followed.

The HRA process is summarised in the following flowchart:[1]



[1] https://www.nature.scot/professional-advice/planning-and-development/environmental-assessment/habitats-regulations-appraisal-hra [accessed 21 August 2024]

3. Description of the project

3.1. Location and existing use

The existing jetty is located at the fuel depot at Loch Carnan, South Uist, shown on Figure 1.

Usage of the jetty is primarily split between Certas and the Ministry of Defence (MoD):

- Certas use the jetty for fuel supply on average every 11 days and as dictated by a pre-agreed schedule
- The MoD use the jetty between 6-8 months of the year primarily by their contract partner QinetiQ to service operations on St Kilda.

3.2. Proposed works

All works will be carried out manually either from a man basket/crane on the jetty, within an enclosed scaffold attached to the jetty, or by divers. Regardless of the access method used, the construction methods will be the same.

3.2.1. Fenders

Damaged shear fenders and support brackets along the front face of the jetty will either be reattached using replacement screws/bolts, or replaced on a like-for-like basis, using hand-operated power tools.

3.2.2. Fender rubbing strips

A number of damaged fender rubbing strips will be replaced on a like-for-like basis using replacement screws/bolts. The old rubbing strips will be unscrewed from the existing timbers and the replacement strips will be screwed on, using hand-operated power tools.

3.2.3. Bollards

Bollard locations are shown on Figure 2 (a number of which are on land adjacent to the jetty but are included for completeness). As detailed in Table 1, existing bollards will be either:

- Removed and replaced on a like-for-like basis[2]
- Removed and not replaced (mooring arrangement to be revised to use other available bollards); or
- Retained and refurbished.

Installation of replacement bollards on the jetty structure (E1 & E2) would involve removing the timber deck and welding a steel plate with stiffeners to the existing main steelwork members. This plate has threaded bars protruding as anchor bolts with spacer tubes and a second plate at deck level to attach the bollard onto; finally, the timber deck will be replaced.

Refurbishment of existing bollards would involve rust removal (by hand) and re-painting.

[2] The new bollards will be like-for-like operational replacements, but upgraded to the new staghorn design bollard

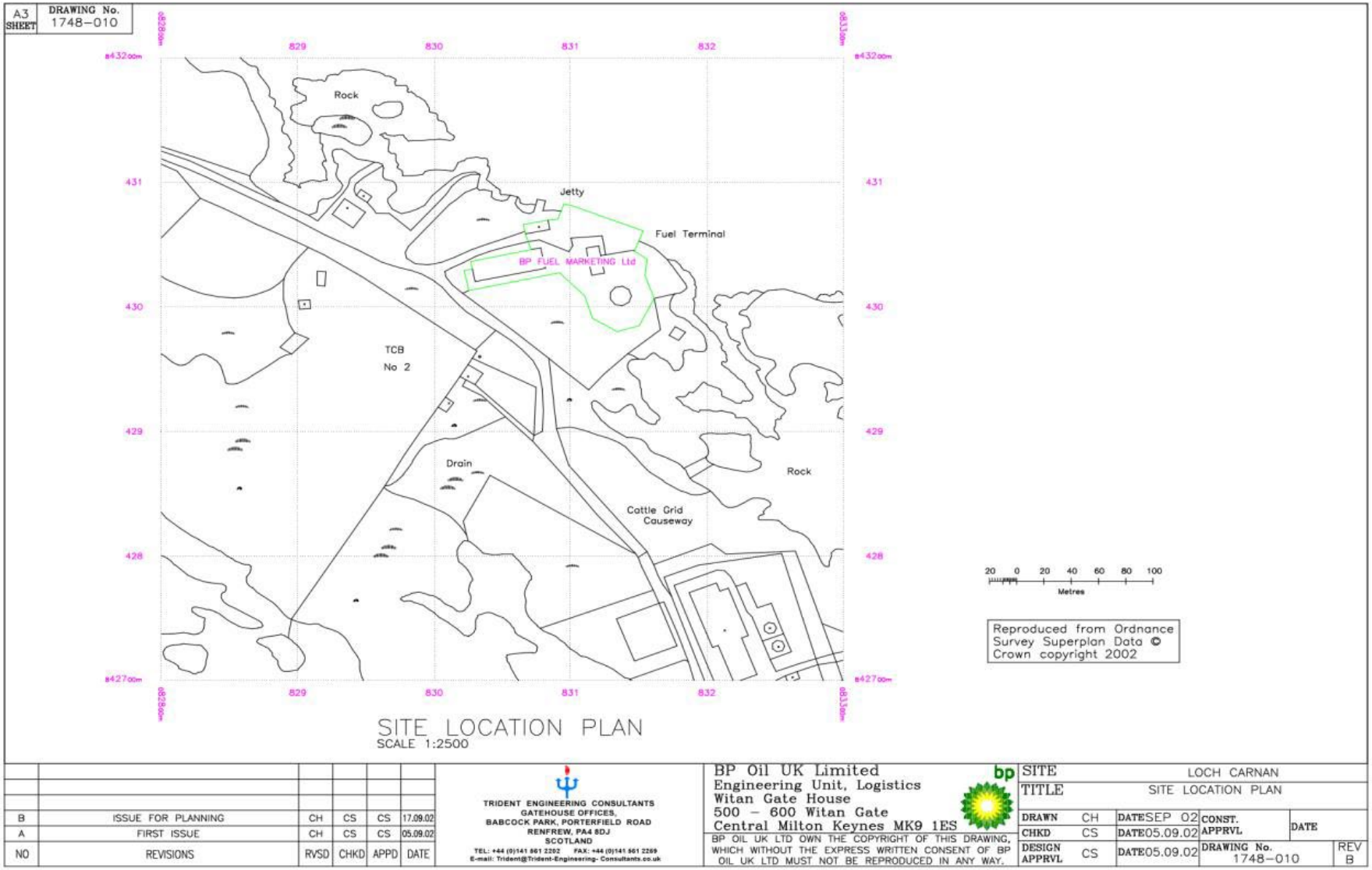


Figure 1 Location Plan

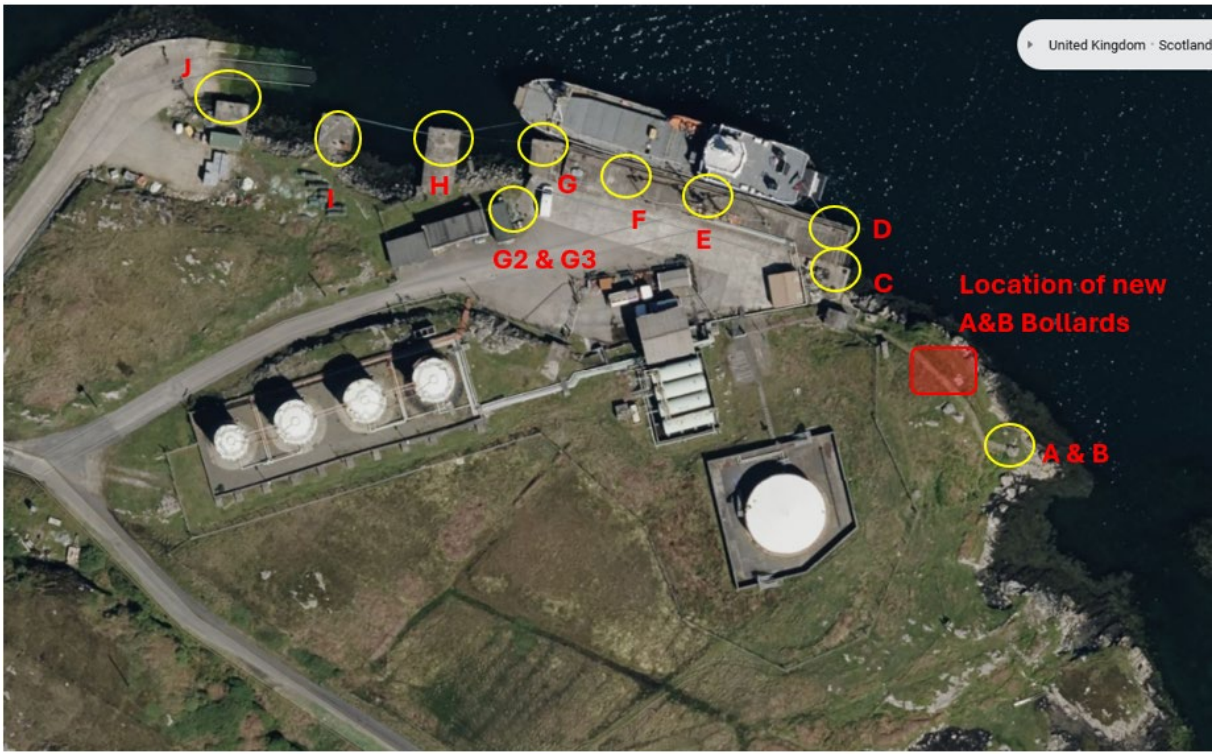


Figure 2 Location of jetty bollards

Table 1 Jetty bollard repair plan

Bollard Location	Type	Remedial Works	Site Pics
New Bollard A1 -	Stag Horn	Install two new stag horn bollards closer to the jetty.	 *(Proposed)*
New Bollard B1 -	Stag Horn	Design and cast new foundation near existing ring plinth considering access paths and topography. Install two new bollards replacing current bollards A & B.	
New Bollard E1 (Frame 9)	Stag Horn	Design, fabricate and install new fixing plates to the deck frame structure. Install two new bollards replacing current bollards D, E & F.	
New Bollard E2 (Frame 11)	Stag Horn		
Existing Bollard A	Double Bitt	Remove and dispose existing bollard. Replace with new bollard A1.	

Bollard Location	Type	Remedial Works	Site Pics
Existing Bollard B	Double Bitt	Remove and dispose existing bollard. Replace with new bollard B1.	
Existing Bollard C	Pillar	Remove rust and repaint	
Existing Bollard D	Pillar	Remove and dispose bollard. Revise mooring arrangement to use other available bollards.	
Existing Bollard E	Pillar	Remove and dispose existing bollard. Replace with new bollards E1 & E2.	
Existing Bollard F	Pillar	Remove and dispose bollard. Revise mooring arrangement to use other available bollards.	
Existing Bollard G2	Double Bitt	Remove rust and repaint	
Existing Bollard G3	Double Bitt	Remove rust and repaint	

Bollard Location	Type	Remedial Works	Site Pics
Existing Bollard G	Stag Horn	Remove rust and repaint	
Existing Bollard H	Stag Horn	Remove rust and repaint	
Existing Bollard I	Stag Horn	Remove rust and repaint	
Existing Bollard J	Stag Horn	Remove rust and repaint	

3.2.4. Structural steel replacement and connection repairs

The jetty comprises 19 near-identical main frames supporting the structure, summarised as follows and shown on Figure 3 and Figure 4:

- 19 cantilevered braced steel frames at 3m centres
- Transverse steel between the main frames
- Diagonal bracing, both vertical and horizontal
- 60m long and 5m high concrete buttress providing support to the cantilever frames, via cast-in fixings
- 19 greenheart timber fender panels, connected to each of the cantilever frames with pairs of elastomeric shear fenders, top and bottom
- Props to transfer low level fender loads directly into the concrete buttress; thereby relieving loading on the original cantilever frames
- 55m x 6.5m timber deck
- 3 deck bollards, connected through to the cantilever frames beneath.

A detailed jetty inspection will be carried out prior to works commencing, building on the existing survey work, to ascertain the exact repair requirements. It is not expected that

substantial repairs will be needed to the steel structure. Works will concentrate on the most corroded areas and will include:

- Replacement of existing bracing beams
- Over-plating of steel members
- Replacement of steel attachments for fenders and shear fenders
- Replacement of nuts, bolts and other fixings.

3.2.5. Delivery of materials to site

All materials will be delivered to site using the existing road network. There will be no marine plant used in construction.

3.3. Programme

Operating restrictions are currently in place to allow continued use of the jetty. These are not suitable for severe winter weather when the average wind speeds are much higher than the limits imposed. Additionally, the demand for fuel during the winter is more critical, and disruptions in fuel supply would be significant for the region.

As such, it is proposed to carry out the works as soon as possible once a marine licence has been granted, and will take approximately 2 months to complete.

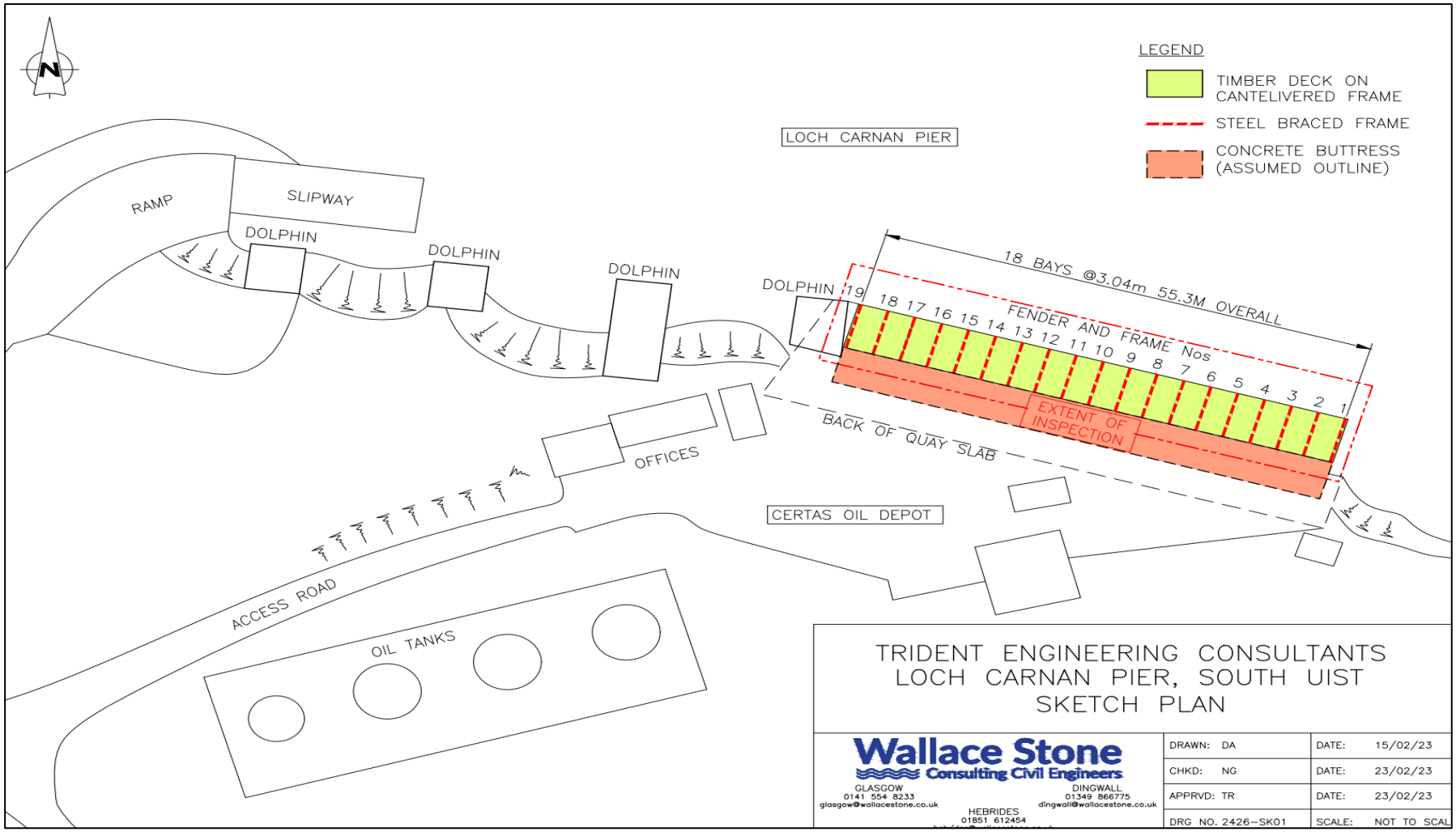


Figure 3 - Loch Carnan jetty location design

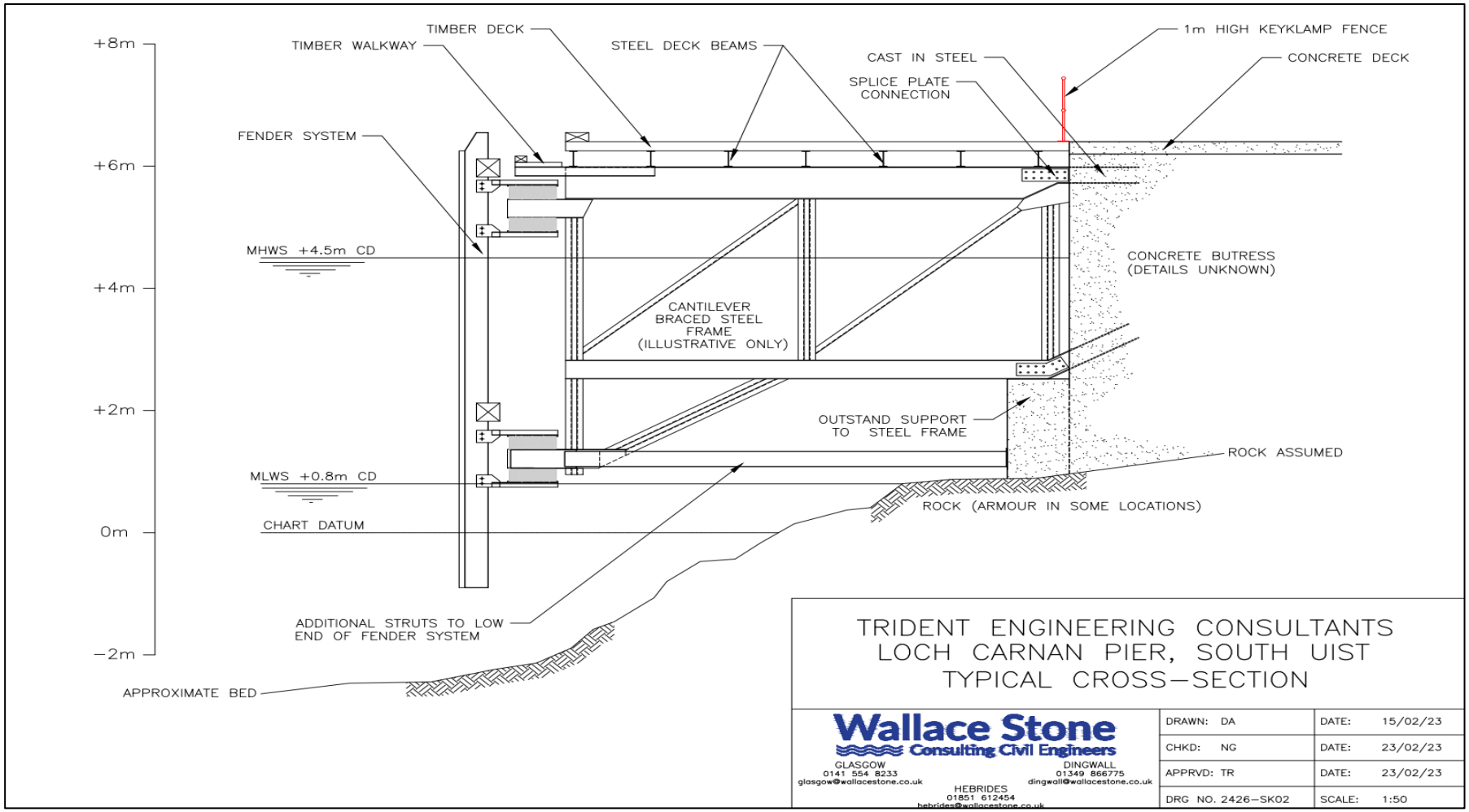


Figure 4 - Cross section of typical frame for Loch Carnan jetty

4. Stage 1: HRA Screening

4.1. Information about designated sites

The proposed works are approximately 5km from the Inner Hebrides and the Minches Special Area of Conservation (SAC), which is designated for harbour porpoise (*Phocoena phocoena*).

There are no other marine/coastal designated sites within 5km.

4.1.1. Site summary

The Inner Hebrides and the Minches SAC, shown on Figure 5, is a very large site (1,381,391.4 hectares) which has been designated to protect harbour porpoise on the west coast of Scotland.

4.1.2. Protected features

The harbour porpoise is a wide-ranging species and occurs across the continental shelf. They also occur in deeper waters but in very low densities, and perhaps only seasonally. Harbour porpoise on the continental shelf, particularly those in coastal waters, are exposed to a wide range of pressures that are both ubiquitous (e.g. pollution) and patchy (e.g. entanglement).

Harbour porpoise are considered sensitive to the following (NatureScot, 2020):

- Removal of non-target and target species (i.e. entanglement of harbour porpoises in fishing gears and removal of their prey species)
- Contaminants (e.g. through effects on water quality and bioaccumulation of contaminants that in turn affects the survival and productivity rates of harbour porpoises)
- Underwater noise (e.g. from acoustic surveys)
- Death or injury by collision (predominantly in relation to collision with various types of fast moving vessels from commercial shipping to personal leisure craft and potentially from tidal turbines).

4.1.3. Conservation objectives

The conservation objectives of the SAC are:

1. To ensure that the Inner Hebrides and the Minches SAC continues to make an appropriate contribution to harbour porpoise remaining at favourable conservation status.
2. To ensure for harbour porpoise within the context of environmental changes, that the integrity of the Inner Hebrides and the Minches SAC is maintained through 2a, 2b and 2c:
   - 2a. Harbour porpoise within the Inner Hebrides and the Minches are not at significant risk from injury or killing.
   - 2b. The distribution of harbour porpoise throughout the site is maintained by avoiding significant disturbance.
   - 2c. The condition of supporting habitats and the availability of prey for harbour porpoise are maintained.

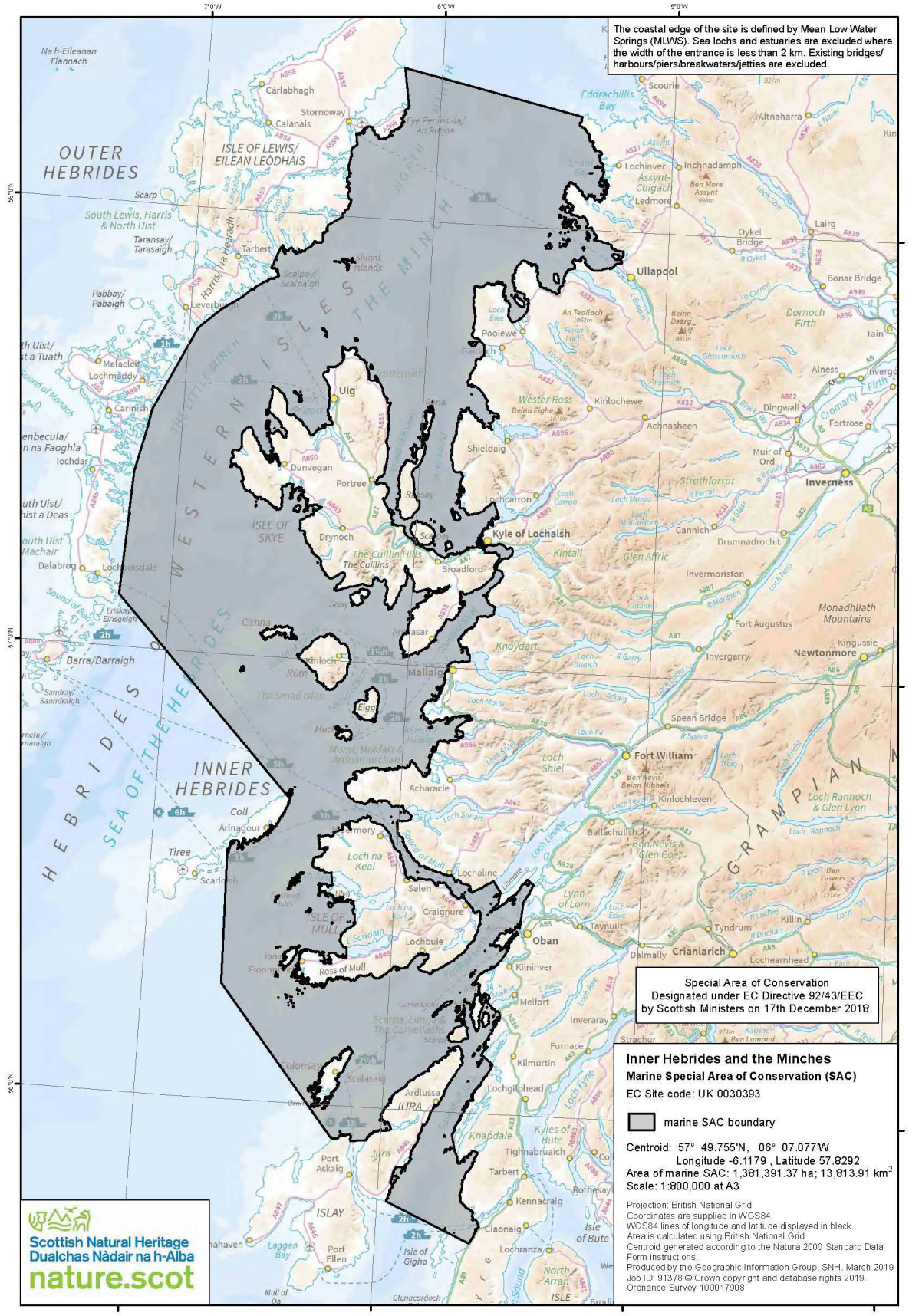


Figure 5 Inner Hebrides and the Minches Special Area of Conservation

4.1.4. Advice to support management

NatureScot's advice to support management for the SAC (NatureScot, 2020) identifies activities that are considered capable of affecting the protected features.

In the 'Coastal development e.g. construction of piers, slipways, jetties etc.' category, the advice is:

'Reduce or limit pressures

Reduce the risks of disturbance to harbour porpoise from activities associated with high source levels of underwater noise (e.g. pile-driving and blasting) using existing best practice mitigation measures.

Minimise the potential impact of coastal development on the habitat of sandeels and other prey species. This should focus on the appropriate siting of development and adopting best practice mitigation to minimise the footprint.'

As described in Section 3.2, the refurbishment of the existing jetty will not involve any activities that generate high source levels of underwater noise (e.g. piling and blasting). The works are confined to the jetty itself with no activity on the seabed so there will be no impact on the habitat of sandeels or other prey species.

In the 'Commercial shipping and ferry routes' category, the advice is:

'Reduce or limit pressures

Whilst no additional management is required for existing routes, further discussion may be required during the establishment of new routes or amendments to existing routes within the context of cumulative effects of all boat activity.'

There will be no change to the operational use of the jetty due to the refurbishments, so no additional management is required for the existing vessel movements.

4.2. Assessment of Likely Significant Effects

To assess whether the proposed jetty refurbishment will have likely significant effects on the interest features of the Inner Hebrides and the Minches SAC, a screening matrix has been produced, as presented in Table 2.

Table 2 Screening matrix for likely significant effects on the Inner Hebrides and the Minches SAC

Potential effect (pressure)	Assessment of likely significant effects
Disturbance (underwater noise)	Disturbance of harbour porpoise generally, but not exclusively, arises from activities that cause underwater noise (NatureScot, 2020). Disturbance is a behavioural response to noise and may lead to harbour porpoises being displaced from the affected area. As described in Section 3.2, the jetty refurbishment will not involve any activities that generate high source levels of underwater noise (e.g. piling and blasting). All works will take place on the existing jetty structure, predominantly above the water. There is no/negligible underwater noise associated with the proposed works, so there is no mechanism for disturbing harbour porpoise. There will be no change to the operational use of the jetty due to the refurbishment works. No likely significant effects.
Direct or indirect loss of/damage to supporting habitats and prey species	Harbour porpoise are highly dependent on year-round proximity to food. Their distribution and condition may strongly reflect the availability and energy density of their prey. Harbour porpoise prey includes sandeel, whiting, herring and sprat (NatureScot, 2020). Sandeels utilise coarse sand with low silt content (Holland *et al*., 2005, Wright *et al*., 2000) between depths of 20 and 60m (Macleod *et al*., 2004) and may use these areas all year. Herring are demersal spawners and lay their sticky eggs directly onto the seabed, with a preference for areas of coarse sand, gravel, shells and small stones. Activities with the potential to cause significant degradation or abrasion of these seabed habitats may result in the local depletion of these prey species (ICES 2003 & 2015) and ultimately affect harbour porpoise using the site. The existing jetty is approximately 5km to the west of the SAC. As described in Section 3.2, the jetty refurbishment works are confined to the jetty itself with no activity on the seabed. There is no mechanism for the works to cause degradation or abrasion of supporting habitats or prey species. There will be no change to the operational use of the jetty due to the refurbishment works. No likely significant effects.

Potential effect (pressure)	Assessment of likely significant effects
Toxic contamination (pollution)	Contamination/pollution of the marine environment has the potential to affect harbour porpoise. As described in Section 3.2, all works will take place on the existing jetty structure, predominantly above the water. Any work where there is the risk of debris falling into the water (e.g. rust and paint removal, welding) will be carried out within an encapsulated scaffold, and any waste generated will be carefully removed and disposed of on land, so there is negligible risk of polluting the marine environment. No likely significant effects.

5. In-combination effects

A review of the Marine Directorate Information licensing portal has revealed various projects that have either applied for or been granted marine licences in the vicinity of the Outer Hebrides and the Minches SAC, where the works may be ongoing at the same time as the proposed Loch Carnan jetty refurbishment works. No relevant projects have been identified in close proximity to the jetty.

As the effects on the marine environment due to the refurbishment works are expected to be negligible with no likely significant effects predicted on harbour porpoise (see Section 4.2), it is highly unlikely that these small-scale contained works will contribute to in-combination effects that are greater than those predicted in the individual assessments for each project.

6. Conclusion of HRA Screening Assessment

This HRA Screening Assessment has considered the proposed refurbishment works at the existing Loch Carnan jetty in terms of likely significant effects upon the Inner Hebrides and the Minches SAC, both alone and in-combination with other plans and projects, and concluded that there will be no likely significant effects.

7. References

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