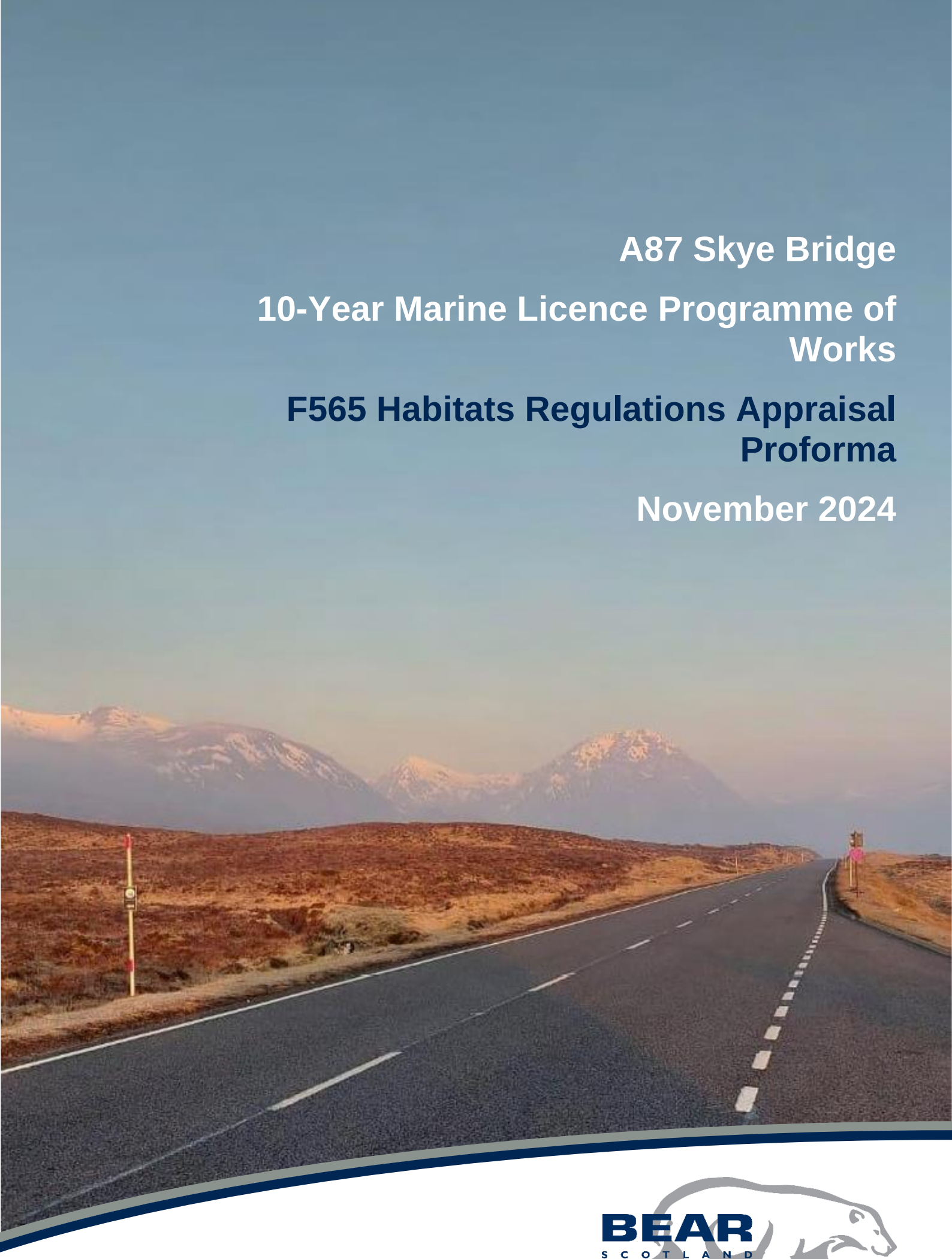
A87 Skye Bridge

10-Year Marine Licence Programme of Works

F565 Habitats Regulations Appraisal Proforma

November 2024



BEAR SCOTLAND

experience that delivers

Document Control Sheet

Report Title	A87 Skye Bridge 10-Year Marine Licence Habitats Regulations Appraisal Proforma
Author	Carolyn Gillen
Revision	1.0
Status	DRAFT to support 10-year Marine Licence Application – for use by Marine Directorate
Date	01/11/2024
Scheme Reference	23-NW-1203-36
Scheme Element	E-24-NW-00987-E
Design Team	Major Bridges
Scheme Designer	David Quickfall

Document Approvals

	Name	Organisation	Signature	Date
Prepared By	Carolyn Gillen	BEAR Scotland	**CG**	15/05/2024
Checked By	Lara Currie	BEAR Scotland	**LC**	02/10/2024
Authorised By	Peter Wrigley	BEAR Scotland	**PW**	28/10/2024

Revision Status

Revision No.	Date	Revision Details	Authorised By
1.0	28/10/2024	First Issue	Peter Wrigley

Document Distribution

Reference	Name of Holder
1	BEAR Scotland
2	Marine Directorate
3	Transport Scotland

Table of Contents

Appraisal in relation to regulation 48 of the Conservation (Natural Habitats, &c.) Regulations 1994 as amended (Habitats Regulations Appraisal

(Or, where relevant, under regulation 61 of The Conservation of Habitats and Species Regulations 2010 as amended, or regulation 25 of The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 as amended)

European Site Details

Name of European Site(s) Potentially Affected

The following European sites are located within 20km of A87 Skye Bridge and may be affected by works. Please note that Marine Protected Areas for Nature Conservation (MPA NC) are included although technically they are not subject to HRA.

1. **Inner Hebrides and the Minches Special Area of Conservation (SAC)**
2. **Lochs Duich, Long and Alsh MPA NC**
3. **Lochs Duich, Long and Alsh Reefs SAC**
4. **Loch Carron MPA NC**
5. **Kinloch and Kyleakin Hills SAC**

In addition, the following European sites were identified within 20km of A87 Skye Bridge but were scoped out of further assessment as no pathway to effect was identified due to the nature of the qualifying features and distance from the area of works.

- Red Rocks and Longay MPA NC
- Coille Mhor SAC
- Mointeach nan Lochain Dubha SAC
- Cuillins SPA
- Strath SAC
- Beinn Bhan SAC
- Rassal SAC

Name of Component SSSI, if Relevant

The following component Sites of Special Scientific Interest (SSSI) overlap with scoped-in European Sites may be affected by works at A87 Skye Bridge. Details of qualifying features and conservation status were accessed on 02/09/2024 from NatureScot's (NS) Sitelink.

1. **Kinloch and Kyleakin Hills (Monadh Chaol Acainn is Cheann Loch) SSSI is designated for the following qualifying features:**
   - Alpine heath – condition last assessed in February 2015 as being 'unfavourable recovering'.
   - Blanket bog – condition last assessed in November 2014 as being 'favourable maintained'.
   - Bryophyte assemblage – condition last assessed in August 2015 as being 'favourable declining'.
   - Lichen assemblage – condition last assessed in December 2013 as being 'unfavourable declining'.
   - Otter (*Lutra lutra*) – condition last assessed in August 2011 as being 'favourable maintained'.
   - Subalpine dry heath – condition last assessed in February 2015 as being 'favourable maintained'.
   - Subalpine wet heath – condition last assessed in September 2009 as being 'unfavourable declining[1]'.
   - Torridonian – condition last assessed in August 2001 as being 'favourable maintained'.
   - Upland oak woodland – condition last assessed in October 2013 as being 'unfavourable declining'.

[1] Management measures are in place that should, in time, improve the feature to Favourable condition (Unfavourable Recovering Due to Management).

In addition, the following SSSIs were identified within 20km of A87 Skye Bridge but were scoped out of further assessment as no pathway to effect was identified due to the nature of the qualifying features and distance from the area of works.

- Ob Lusa to Ardnish SSSI
- Rubh' an Eireannaich SSSI
- Coille Mhor SSSI
- Loch Ashaig SSSI
- Mointeach nan Lochain Dubha SSSI
- Carn a' Bhealaich Mhoir SSSI
- Ard Hill SSSI
- Avernish SSSI
- Beinn Bhan SSSI
- Rassal SSSI
- Strath SSSI
- Cuillins SSSI

European Site(s) Qualifying Interest(s) and Whether Priority or Non-Priority

Details of qualifying features and conservation status are listed for each of the European Sites noted above and were accessed on 02/09/2024 from NS Sitelink. Priority qualifying features are denoted below by (*).

1. **Inner Hebrides and the Minches SAC (NS Site Code 10508 - Sitelink):**
   - Harbour porpoise* (*Phocoena phocoena*) – condition last assessed in December 2016 as being 'favourable maintained'.

2. **Lochs Duich, Long and Alsh Nature Conservation MPA NC (NS Site Code 10416 - Sitelink):**
   - Burrowed mud* - condition last assessed in 2015 as being 'favourable'.
   - Flame shell beds* - condition last assessed in 2015 as being 'favourable'.

3. **Lochs Duich, Long and Alsh Reefs SAC (NS Site Code 8309 - Sitelink):**
   - Reefs* – condition last assessed in June 2004 as being 'unfavourable declining'.

4. **Loch Carron MPA NC (NS Site Code 10543 - Sitelink):**
   - Flame shell beds* (no condition assessment provided).
   - Maerl beds* (no condition assessment provided).

5. **Kinloch and Kyleakin Hills SAC (NS Site Code 8282 - Sitelink):**
   - Alpine and subalpine heaths – condition last assessed in February 2015 as being 'unfavourable recovering'.
   - Blanket bog* – condition last assessed in November 2014 as being 'favourable maintained'.
   - Dry heaths – condition last assessed in February 2015 as being 'favourable maintained'.
   - Mixed woodland on base-rich soils associated with rocky slopes* – condition last assessed in October 2013 as being 'unfavourable recovering'.
   - Otter – condition last assessed in August 2011 as being 'favourable maintained'.
   - Western acidic oak woodland – condition last assessed in October 2013 as being 'unfavourable declining'.
   - Wet heathland with cross-leaved heath – condition last assessed in September 2009 as being 'unfavourable declining[2]'.

[2] Management measures are in place that should, in time, improve the feature to Favourable condition (Unfavourable Recovering Due to Management).

Conservation Objectives for Qualifying Species

The following conservation objectives are taken from supporting documents (i.e., 'Conservation Objectives' and/or 'Conservation Advice Package') for the below European sites, accessed from Sitelink on 02/09/2024:

1. **Inner Hebrides and the Minches SAC**
    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:
        a) Harbour porpoise within the Inner Hebrides and the Minches are not at significant risk from injury or killing.
        b) The distribution of harbour porpoise throughout the site is maintained by avoiding significant disturbance.
        c) The condition of supporting habitats and the availability of prey for harbour porpoise are maintained.

2. **Lochs Duich, Long and Alsh MPA NC**
    1. The Conservation Objectives of the Lochs Duich, Long and Alsh MPA, are that the protected features':
        - so far as already in favourable condition, remain in such condition; and
        - so far as not already in favourable condition[3], be brought into such condition, and remain in such condition.

3. **Lochs Duich, Long and Alsh Reefs SAC**
    1. To ensure that the qualifying features of Lochs Duich, Long and Alsh Reefs SAC are in favourable condition and make an appropriate contribution to achieving Favourable Conservation Status.
    2. To ensure that the integrity of Lochs Duich, Long and Alsh Reefs SAC is maintained in the context of environmental changes by meeting objectives 2a, 2b and 2c:
        a) Extent and distribution of reefs within the site.
        b) Structure and function of reefs and the supporting environment on which it relies.
        c) Distribution and viability of typical species of reefs.

4. **Loch Carron MPA NC**
    1. The Conservation Objectives of the Loch Carron possible MPA, are that the protected features':
        - so far as already in favourable condition, remain in such condition; and
        - so far as not already in favourable condition[4], be brought into such condition, and remain in such condition.

5. **Kinloch and Kyleakin Hills SAC**
    1. To avoid deterioration of the qualifying SAC habitats thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and
    2. To ensure for the qualifying habitats that the following are maintained in the long term:
        - Extent of the habitat on site
        - Distribution of the habitat within site
        - Structure and function of the habitat
        - Processes supporting the habitat
        - Distribution of typical species of the habitat
        - Viability of typical species as components of the habitat
        - No significant disturbance of typical species of the habitat

[3] "Favourable condition", with respect to a marine habitat, means that a) its extent is stable or increasing; and b) its structures and functions, its quality, and the composition of its characteristic.
[4] "Favourable condition", with respect to a marine habitat, means that a) its extent is stable or increasing; and b) its structures and functions, its quality, and the composition of its characteristic biological communities are such as to ensure that it is in a condition which is healthy and not deteriorating.

3. To avoid deterioration of the habitats of the qualifying species (otter) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and
4. To ensure for the qualifying species (otter) that the following are maintained in the long term:
    - Population of the species as a viable component of the site
    - Distribution of the species within site
    - Distribution and extent of habitats supporting the species
    - Structure, function and supporting processes of habitats supporting the species
    - No significant disturbance of the species

Stage 1: What is the Plan or Project?

Proposal Title

A87 Skye Bridge 10-Year Marine Licence Programme of Works

Name of Competent Authority

Transport Scotland, Marine Directorate

Name of Consultee

NS – Rachael Haylett (**Appendix A**).

Details of Proposal (Including Location, Timing and Methods)

General Information

This Habitat Regulations Appraisal (HRA) aims to cover various 'schemes' and 'cyclic maintenance activities' programmed over the next ten years on the A87 Skye Bridge, which has connectivity with the above European Sites. The centre point of the A87 Skye Bridge is located at National Grid Reference (NGR) NG 74475 26841 and partially spans the Kyle Akin waterbody to provide road access from the west coast of Scotland to the Isle of Skye (Figure 1). The A87 Skye Bridge connects Skye with Eilean Ban, a small island in the middle of the Kyle Akin waterbody. The nearby A87 Carrich Bridge joins Eilean Ban with the Scottish mainland.

Figure 1. Location of A87 Skye Bridge. Inset shows location on the west coast of Scotland. Source: NS Sitelink.

The proposed maintenance activities are broken down into '**scheme**' and '**cyclic maintenance**' works. Schemes are specific projects that are planned and will be required at some point over the next 10 years, whilst cyclic maintenance works are carried out regularly and may be required at any time (likely more than once) over the next 10 years. The

cyclic maintenance activities are not necessarily planned but may be identified as required during regular inspections over the next 10 years.

A summary of the proposed maintenance works (schemes and cyclic maintenance activities) is given below:

Schemes:

- Bridge deck resurfacing and waterproofing
- Structural health monitoring
- Internal access improvements
- Bentonite replacement

Cyclic Maintenance:

- Parapet replacement
- Parapet repair
- Expansion joint maintenance
- Expansion joint replacement
- Concrete repairs
- Structural health monitoring repair and maintenance
- Drainage cleaning
- Resurfacing maintenance
- Ancillary highway item repair
- Daymark board maintenance
- Inspections and surveys
- Minor mechanical and electrical maintenance

Further information on each scheme or activity can be viewed in the supporting documents '**A87 Skye Bridge 10 Year Programme of Works'**, which provides a detailed description of all the proposed maintenance works, including mitigation measures and access requirements where relevant. An additional supporting document, **'A87 290 Skye Bridge – Surface Water Drainage Locations',** includes further details on surface water drainage on the bridge. Although some larger schemes may have a duration of several months, most smaller schemes and cyclic maintenance works would have much shorter durations. Schemes and cyclic maintenance activities may take place at any time of year and may entail works during the day, at night, or both. Refer to Table 1 below for a summary of these details. All maintenance works on the bridge would be temporary and it should be noted that large schemes would not be carried out concurrently due to budget and network access constraints. Most works would be completed from the bridge deck, although some (e.g., bentonite replacement, concrete repairs) would require access from the water and/or below the bridge deck.

Table 1. Details of works including location on the bridge, access requirements, duration, seasonality, and timing.

Type of Works	Description of Works	Area of Works	Access	Duration (estimate)	Season	Timing (Day/Night)
Scheme	Bridge deck resurfacing and waterproofing	Carriageway and footpaths on all spans (above deck)	Deck access	4 weeks	Any	Either, up to 7 days/week
Scheme	Structural health monitoring	Monitoring equipment and cabling installed above and below all bridge spans	Scaffolding or underbridge unit for below-deck access	6 months	Any	Either, up to 7 days/week
Scheme	Internal access improvements	All spans. Anticipated that works seaward of MHWS will be confined within the internal box girder	Deck and internal access	6 months	Any	Either, up to 7 days/week
Scheme	Bentonite replacement	Bridge pier foundations (caissons) at piers 3 and 4. Bentonite to be pumped into caissons to top up levels	Work boat/barge access	4 weeks	Any	Either, up to 7 days/week
Cyclic	Parapet replacement	Bridge deck, all spans	Deck access	4 weeks	Any	Either, up to 7 days/week
Cyclic	Parapet repair	Bridge footpaths, all spans	Deck access	1 week	Any	Either, up to 7 days/week
Cyclic	Expansion joint maintenance	Carriageway above east and west abutments	Deck access	1 week	Any	Either, up to 7 days/week

Cyclic	Expansion joint replacement	Carriageway above east and west abutments	Deck and internal access from abutment galleries	1 week	Any	Either, up to 7 days/week
Cyclic	Concrete repairs	Above and below the bridge deck, all spans. Large repairs will require hydro-demolition	Scaffolding or underbridge unit for below-deck access	1 month (small repairs) 3 months (large repairs)	Any	Either, up to 7 days/week
Cyclic	Structural health monitoring repair and maintenance	All spans, below deck, on bridge deck cantilever, crossheads, and piers	Underbridge unit for below-deck access	1 month	Any	Either, up to 7 days/week
Cyclic	Drainage cleaning	Drains on bridge deck at the abutments and Pier 2.	Deck access	1 day	Any	Either
Cyclic	Resurfacing maintenance	Carriageway and footpaths on all spans	Deck access	1-4 weeks	Any	Either, up to 7 days/week
Cyclic	Ancillary highway item repair	Bridge deck throughout structure	Deck access	3 days	Any	Either, up to 7 days/week
Cyclic	Daymark board maintenance	Below deck - box beam superstructure	Underbridge unit for below-deck access	1 week	Any	Either, up to 7 days/week
Cyclic	Inspections and surveys	Entire structure and foundations on seabed	Deck access; scaffolding or underbridge unit for below-deck access; roped access; drones; barges and small boats; dive surveys	1 week	Any	Either, up to 7 days/week
Cyclic	Minor mechanical and electrical maintenance	All spans throughout bridge	Deck access; scaffolding or underbridge unit for below-deck access; small boats for pier access	1-2 days	Any	Either

BEAR Scotland follow good practice guidance produced by the Scottish Environment Protection Agency (SEPA) as standard for works in or near water to reduce the risk of water pollution as much as possible. These measures will ensure that any potential pollutants, including fine sediments and materials required for the works in or near water, will not enter the water environment and travel downstream during the works. These measures and working practices would be in place regardless of the presence of nearby designated sites and therefore are not considered to be mitigation. All relevant pollution controls and other good practice measures will be detailed in the Site Environmental Management Plan (SEMP) for each scheme and adhered to on site. Refer to **Appendix B** for details of these good practice measures.

The majority of works will be carried out following the good practice measures outlined in **Appendix B** and in the attached Programme of Works document. However, please note that this HRA is not intended to cover the proposed activities if the scope of works is beyond what has been described below for each activity. In these cases, additional consultation with NS will be carried out, a separate HRA will be completed, and an HRA Proforma will be produced specific to those works.

Activity-specific methods

Details on methods and specific working practices for each of the above maintenance activities is provided in the supporting document '**A87 Skye Bridge 10 Year Programme of Works'**; however, some proposed methods for access and/or works beneath the bridge deck or from the water are highlighted below.

All activities are highly localised and will take place within the immediate vicinity of the trunk road and trunk road bridge. All maintenance works are considered temporary and are unlikely to be carried out simultaneously with any other maintenance works due to traffic management restrictions and budget constraints.

Access from the water or below the deck

Various access requirements may be required to facilitate some of the above activities, particularly for works below the bridge deck or on the piers (e.g., bentonite replacement, concrete repairs). Types of access may include (but are not limited to) the following:

- Lorry-mounted mobile elevated working platform (MEWP) with underbridge capabilities (underbridge unit).

- Temporary fixed working platforms (e.g., scaffolding) which may be suspended from the bridge or footed on the ground below.
- Barges and/or small boats for some works or inspections.

In line with health and safety requirements, any work being carried out beneath the bridge will require an adequate working platform and edge protection to prevent any workers or materials from falling. In line with good practice, this platform and edge protection containment will be achieved by the attachment of either debris netting or thickened sheets to prevent materials falling from the platform. Where an underbridge unit is required, the vehicle basket will be positioned beneath the working area to contain any construction materials or pollutants.

Some types of inspections/surveys and works to the bridge piers (e.g., bentonite replacement) will require access via barges or small boats beneath the bridge. The bentonite replacement scheme is expected to be carried out from barges moored to points on each bridge pier. Additionally, small boats or barges may be required for inspections. In line with good practice, strict containment measures will be in place on any barges or boats to prevent pollution incidents in the marine environment.

Hydro-demolition

It is not currently expected that hydro-demolition will be required to carry out concrete repairs on A87 Skye Bridge. However, it has been included in the programme of works in case it becomes necessary in the future.

Hydro-demolition would likely only be required if larger concrete repair work become necessary. Smaller concrete repairs will likely be done using hand tools. If access from the water or below the deck is required for hydro-demolition works, the containment measures described above for 'Access from the water or below the deck' would apply. In addition, the floor of the platform will be layered with materials (e.g., Terram and Visquine layers) to fully contain the water and debris produced during hydro-demolition. Concrete fragments that land on the access system floor during large or small repair works will be collected, taken to the surface of the bridge, and removed from site by licensed waste carriers.

For works on the deck of the bridge, debris netting or sheeting will be applied around the working area to prevent materials and/or hydro-demolition water from entering the water environment. Material will be collected in the same manner as described above and removed from the site by licensed waste carriers.

Wastewater generated from hydro-demolition works is considered to be a trade effluent and is required to either be collected and removed off-site for disposal under appropriate permits/authorisation or discharged on site with appropriate consents in place from SEPA. For some hydro-demolition works at A87 Skye Bridge, the appointed subcontractor may be responsible for obtaining appropriate consents or authorisation to discharge or otherwise dispose of wastewater. Wastewater must be captured and treated (e.g., via a Siltbuster or similar equipment) to reduce pH and suspended solids to an acceptable level. Typically, a pH value between 5-9 and a suspended solids value between 80-100mg/l is considered acceptable for discharge. The volume and rate of discharge would be agreed with SEPA and would determine the level of authorisation required to permit discharge. Discharging to a location on land will be planned where possible and will be the preferred option to discharging to the marine environment. Authorisation will be sought from SEPA to permit discharge of wastewater as required on a scheme-by-scheme basis as required and no discharges will take place until the appropriate authorisation is secured.

Additional Considerations

This is an iterative document and will be subject to periodic review or when there are any relevant changes to the method of works or qualifying features of any of the designated sites. Any changes or updates will be documented in the Document Control section on the cover page of this document.

This document does not negate the need to consult with the Marine Directorate, and any subsequent licence conditions will be adhered to throughout construction. This document does not negate the requirement to consult with other statutory consultees such as local District Salmon Fishery Boards (DSFB)/Trusts and SEPA. Any subsequent advice and/or consents will be followed during works.

Stage 2: Is the Plan or Project Directly Connected with or Necessary to Site Management for Nature Conservation?

Connection to Site Management

This test is to identify and remove from further assessment those proposals which are clearly necessary to, or of value to, or inevitable as part of, management of the site for its qualifying interests. For the majority of proposals competent authorities deal with the answer to stage 2 will be 'no'. However, where it is thought this could be applicable the following points should be considered:

I. Has the effect on all qualifying interests been considered?
II. Is the proposal part of a fully assessed and agreed management plan? If not, then further consideration or supporting information will be required.
III. Is there a clear rationale to justify the connection with the conservation objectives?
IV. If there is a clear connection with the conservation objectives will any benefits arising from the proposal outweigh any negative effects?
V. Have any alternative methods of implementing the proposal been explored, including building in any relevant mitigation, to demonstrate that this is the least damaging option?
VI. Give a Yes / No conclusion in terms of whether the plan or project is considered directly connected with or necessary to site management for nature conservation.

If Yes for all elements of a plan or project, for all the European site qualifying interests (preferably as part of a fully assessed and agreed management plan), then consent can be issued. The rationale should be detailed below, and no further appraisal is required (no need to proceed to stage 3 or 4).

If No for one or more European site qualifying interests then proceed to stage 3.

If a plan has multiple elements (e.g., a range of policies or management objectives), elements of the plan considered directly connected with or necessary to site management for nature conservation should be discussed below and a rationale given for this conclusion. No further appraisal is then required for those elements. All other elements of the plan must proceed to stage 3.

None of the activities covered by this document are directly connected with or necessary to the management of any of the above designated sites for the purpose of nature conservation. Therefore, further assessment is required.

Stage 3: Is the Plan or Project (Either Alone or in Combination with Other Plans or Projects) Likely to Have a Significant Effect on the Site?

Assessment for LSE

The test of Likely Significant Effect (LSE) is a simple screening stage to determine whether or not an appropriate assessment is required. Each qualifying interest must be considered in relation to their conservation objectives. The following points should be considered:

I. Briefly indicate which qualifying interest could be affected by the proposal and how; if none, provide a brief justification for this decision, and then proceed to v), otherwise continue:
II. consider whether there is connectivity between the proposal and each of the qualifying interests i.e. are there processes or pathways by which the proposal may influence the site's interests? Conclude no LSE only if there is no connection, or it is obvious that the proposal will not undermine the conservation objectives despite a connection. The potential for negative effects on the qualifying interests may be immediately obvious, in which case conclude likely significant effect and move straight to the next step.
III. consider the nature, scale, location, longevity, and reversibility of effects.
IV. consider whether the proposal contributes to cumulative or incremental impacts in combination with other plans or projects completed, underway or proposed.
V. Where the impacts of a proposal are the same for different qualifying interests these can be considered together however a clear conclusion should be given for each interest.
VI. give Yes / No conclusion for each interest.

If Yes, or in cases of doubt, continue to stage 4.

If No for all features, a consent can be given and recorded below. There is no need to then proceed to stage 4.

Remember if mitigation is required to prevent there being an effect on qualifying interests, then LSE must be concluded, and an appropriate assessment (stage 4) must be conducted. Further guidance on the handling of mitigation can be found as part of the European site Casework Guidance.

Below is an assessment of the potential for Likely Significant Effects (LSE) of the maintenance activities on the qualifying features of the following designated sites:

1. Inner Hebrides and the Minches SAC
2. Lochs Duich, Long, and Alsh MPA NC
3. Lochs Duich, Long, and Alsh Reefs SAC
4. Loch Carron MPA NC
5. Kinloch and Kyleakin Hills SAC
    - Kinloch and Kyleakin Hills (Monadh Chaol Acainn is Cheann Loch) SSSI

Although SSSIs are not subject to HRA, we have included an assessment of potential impacts on one component SSSI within the assessments of the relevant European Sites below for completeness.

If the scope of works is beyond what has been detailed in Stage 1 for each activity, additional consultation with NS will be carried out, a separate HRA/Appropriate Assessment will be completed, and an HRA Proforma will be produced specific to those works.

Assessment of the potential effects of the proposed maintenance activities has been carried out below. Qualifying features for each site have been grouped where possible for brevity.

1. Inner Hebrides and the Minches SAC

The Inner Hebrides and the Minches SAC covers a very large area along the west coast of Scotland, including coastal waters extending from the Point of Store (north of Lochinver) south to the peninsula of Kintyre. The seas around

Scotland's Inner Hebrides are included within the SAC boundary. The Inner Hebrides and the Minches SAC partially overlaps with Lochs Duich, Long, and Alsh MPA NC, Lochs Duich, Long, and Alsh Reefs SAC, and Loch Carron MPA NC and forms part of Scotland's MPA network. It is designated for harbour porpoise, which is Priority Marine Feature.

The A87 Skye Bridge spans the Inner Hebrides and the Minches SAC between the Isle of Skye and Eilean Ban, a small island that lies in the strait between Skye and mainland Scotland.

Assessment against the conservation objectives for harbour porpoise

Harbour porpoise are wide-ranging cetaceans (and a European Protected Species) that inhabit the coastal waters along Scotland's west coast. They occur at low densities and are known to be sensitive to four main pressures that can affect harbour porpoise survival and distribution across the site (NS 2020). These pressures include:

- Removal of target and non-target species (i.e., entanglement of harbour porpoise in fishing gears and removal of their prey species).
- Contaminants (e.g., through effects on water quality and bioaccumulation of contaminants affecting survival and productivity of harbour porpoise).
- Underwater noise.
- Death or injury by collision (predominantly collision with fast-moving vessels and tidal turbines).

The proposed works at A87 Skye Bridge do not entail any fishing. However, some works would require the use of vessels which could result in collisions with harbour porpoise and create underwater noise. All works have potential to result in pollution of the marine environment. Consequently, the proposed works could contribute to some of the above pressures, which could in turn affect the survival and distribution of harbour porpoise within the SAC. Therefore**, LSE on harbour porpoise as a result of proposed works cannot be ruled out, and this feature is considered further in Stage 4**.

2. Lochs Duich, Long, and Alsh MPA NC

Lochs Duich, Long, and Alsh MPA NC covers three sea lochs on the west coast of Scotland, including Loch Long to the north, Loch Duich to the southeast, and Loch Alsh to the west. Lochs Duich, Long, and Alsh MPA NC is designated for burrowed mud and flame shell beds, which are both inshore sublittoral marine sediment features. It partially overlaps with the Inner Hebrides and the Minches SAC and Lochs Duich, Long, and Alsh Reefs SAC and forms part of Scotland's MPA network. The A87 Skye Bridge spans the western end of the MPA NC.

Assessment against the conservation objectives for flame shell beds and burrowed mud

Flame shells are bivalve molluscs that form beds on areas of muddy gravel and sand, often where water currents are moderate or strong. Beds formed by flame shells consolidate the underlying sediments in the area and form a surface or reef to which other marine life can attach (Marine Directorate 2018). Flame shell beds are a Priority Marine Feature and are highly sensitive to physical disturbance which can kill or damage individuals and break up the bed structure. Increased sedimentation can also negatively affect flame shell beds by reducing water quality and oxygen flow (NS 2024). Flame shell beds within Lochs Duich, Long, and Alsh MPA NC are known to be present in high densities at the western end of Loch Alsh, including in the vicinity of A87 Skye Bridge (NS 2024). There is a minor risk of physical disturbance to flame shell beds as a result of proposed bentonite replacement works, which will require the use of barges at A87 Skye Bridge. There is also a risk that water quality could be affected due to pollution events during any works on the bridge or by hydro-demolition discharge (if required). Consequently, the proposed works could contribute to pressures faced by flame shell beds, which could in turn affect the conservation status of flame shell beds within the MPA NC. Therefore, **LSE on flame shell beds as a result of proposed works cannot be ruled out, and this feature is considered further in Stage 4**.

Burrowed mud habitat is found in marine areas where water movement is relatively limited, creating a stable environment for the seabed. This usually occurs in deeper water or in shallower sheltered areas, such as the sea lochs along Scotland's west coast (NS 2023a). Burrowed mud habitat supports a range of marine invertebrates, many of which create burrows in the mud which aerate the substrate and prevent anoxic conditions from occurring. Burrowed mud is a Priority Marine Feature that is sensitive to physical disturbance, pollution, and siltation. The nearest areas of burrowed mud habitat to the A87 Skye Bridge are located in Loch Alsh, approximately 3.1km from the bridge (National Marine Plan Interactive). Although the risk of physical disturbance to burrowed mud habitat as a

result of proposed works at A87 Skye Bridge is likely to be low, there is a risk that water quality could be affected due to pollution events during construction or by hydro-demolition discharge (if required). Consequently, the proposed works could contribute to pressures faced by burrowed mud, which could in turn affect the conservation status of this feature within the MPA NC. Therefore, **LSE on burrowed mud habitat as a result of proposed works cannot be ruled out, and this feature is considered further in Stage 4**.

3. Lochs Duich, Long, and Alsh Reef SAC

Lochs Duich, Long, and Alsh Reefs SAC covers three sea lochs on the west coast of Scotland, including Loch Long to the north, Loch Duich to the southeast, and Loch Alsh to the west. Lochs Duich, Long, and Alsh Reefs SAC is designated for reefs. It partially overlaps with the Inner Hebrides and the Minches SAC and Lochs Duich, Long, and Alsh MPA NC and forms part of Scotland's MPA network. The A87 Skye Bridge is located just west of the western end of the SAC.

Assessment against the conservation objectives for reefs

Reefs within the SAC can include rocky reefs and horse mussel beds, a Priority Marine Feature. Both of these types of reefs are sensitive to physical disturbance, siltation, and smothering, all of which can kill or damage individual organisms and break up the reef structure (NS 2024). Increased sedimentation can also negatively affect reefs by reducing water quality and oxygen flow (NS 2024). Reefs are present throughout Lochs Duich, Long, and Alsh Reefs SAC, including within 250-300m of A87 Skye Bridge (National Marine Plan Interactive). Although the risk of physical disturbance to reefs as a result of proposed works at A87 Skye Bridge is likely to be low, there is a risk that water quality could be affected due to pollution events during construction or by hydro-demolition discharge (if required). Consequently, the proposed works could contribute to pressures faced by reefs, which could in turn affect the conservation status of this feature within the SAC. Therefore, **LSE on reefs as a result of proposed works cannot be ruled out, and this feature is considered further in Stage 4**.

4. Loch Carron MPA NC

Loch Carron MPA NC extends northeast from the Skye and Carrich Bridges along the coast to the mouth of Loch Carron. The MPA NC is designated for flame shell beds and maerl beds, which are both inshore sublittoral marine sediment features and Priority Marine Features. It partially overlaps with the Inner Hebrides and the Minches SAC and is adjacent to Lochs Duich, Long, and Alsh MPA NC and SAC. It forms part of Scotland's MPA network. The A87 Skye Bridge is located approximately 320m south of the southern end of the MPA NC.

Assessment against the conservation objectives for flame shell beds and maerl beds

As noted above, flame shells are bivalve molluscs that form beds on areas of muddy gravel and sand, often where water currents are moderate or strong. Beds formed by flame shells consolidate the underlying sediments in the area and form a surface or reef to which other marine life can attach (Marine Directorate 2018). They are highly sensitive to physical disturbance which can kill or damage individuals and break up the bed structure. Increased sedimentation can also negatively affect flame shell beds by reducing water quality and oxygen flow (NS 2024). Loch Carron MPA NC supports multiple flame shell beds, including the world's largest known flame shell bed in Loch Carron (NS 2024). The flame shell beds in Loch Carron MPA NC are primarily located at the northern end of the site near Loch Carron, approximately 10km from the Skye Bridge by straight-line distance (National Marine Plan Interactive). Although the risk of physical disturbance to flame shell beds within Loch Carron MPA NC as a result of proposed works at A87 Skye Bridge is likely to be negligible, there is a risk that water quality could be affected due to pollution events during construction or by hydro-demolition discharge (if required). Consequently, the proposed works could contribute to pressures faced by flame shell beds, which could in turn affect the conservation status of flame shell beds within the MPA NC. Therefore, **LSE on flame shell beds as a result of proposed works cannot be ruled out, and this feature is considered further in Stage 4**.

Maerl is a hard seaweed that grows a hard, brittle skeleton (similar to coral) and forms beds on areas of the sea floor which create important habitat for other marine life, such as scallops, sea cucumbers, and other invertebrates (NS 2023b). They are highly sensitive to physical disturbance which can kill or damage individuals and break up the bed structure. Maerl beds grow exceptionally slowly and therefore are unlikely to recover from significant physical damage. Increased sedimentation can also negatively affect maerl beds by reducing water quality and oxygen flow (NS 2024). Loch Carron MPA NC supports multiple maerl beds, which are primarily distributed in coastal waters in the middle and southern parts of the MPA NC, including around some small islands just north of A87 Skye Bridge

(NS 2024). The nearest maerl bed to the A87 Skye Bridge is located approximately 700m northwest of the bridge (National Marine Plan Interactive). Although the risk of physical disturbance to maerl beds as a result of proposed works at A87 Skye Bridge is likely to be negligible, there is a risk that water quality could be affected due to pollution events during construction or by hydro-demolition discharge (if required). Consequently, the proposed works could contribute to pressures faced by maerl beds, which could in turn affect the conservation status of maerl beds within the MPA NC. Therefore, **LSE on maerl beds as a result of proposed works cannot be ruled out, and this feature is considered further in Stage 4.**

5. Kinloch and Kyleakin Hills SAC

Includes assessment of Kinloch and Kyleakin Hills (Monadh Chaol Acainn is Cheann Loch) SSSI for completeness

Kinloch and Kyleakin Hills SAC covers the southeastern part of the easternmost peninsula on Skye. It encompasses upland and coastal habitat and is designated for two woodland habitats, four upland habitats, and otter. The SAC is located 1.5km directly south of the A87 Skye Bridge (via straight-line distance over land); however, the nearest coastal areas of the SAC with hydrological connectivity are approximately 3.1km southeast of the A87 Skye Bridge.

The SSSI is also designated for upland and woodland habitats and otter as well as Torridonian geology, bryophyte assemblage, and lichen assemblage. The bryophyte, lichen, and geological features are likely to be associated with the upland and woodland habitat features; potential impacts on these features are therefore considered within the assessment for qualifying habitats within the SAC. Potential impacts on otters within the SSSI are considered in the assessment for otters within the SAC below.

Assessment against the conservation objectives for all qualifying habitats

None of the proposed works will be carried out within the boundary of the SAC/SSSI. All proposed works will be highly localised to the A87 Skye Bridge and immediate surroundings; therefore, any works would be located over 1.5km (straight-line distance) from the nearest areas of qualifying habitat within the SAC/SSSI. Therefore, there is no connectivity between the working areas on A87 Skye Bridge and the qualifying habitats of the SAC/SSSI, and no direct effects (e.g., loss of habitat) have been identified as a result of any of the proposed works.

Similarly, the risk of indirect effects (e.g., due to pollution) on the qualifying habitats is highly limited due to the distance from the SAC/SSSI to A87 Skye Bridge. In addition, the standard working practices noted in Stage 1 and Appendix B include robust containment measures to prevent pollution events for both in-water and other works. With these measures in place during works, the risk of indirect effects on the qualifying habitats as a result of pollution is considered to be negligible.

Cumulative and in-combination effects – qualifying habitats

Although the proposed activities would be highly localised to the A87 Skye Bridge and immediate vicinity, the timing of works over the next 10 years has not yet been confirmed. As noted above, a search will be undertaken for other plans and projects that could have cumulative or in-combination effects in the vicinity of the proposed maintenance works on a case-by-case basis once individual maintenance schemes are designed and submitted for environmental assessment. If there is potential for these effects, additional consultation will be carried out with NS. However, considering the nature and scale of each of the maintenance activities and the distance between the qualifying habitats within Kinloch and Kyleakin Hills SAC/SSSI and the A87 Skye Bridge, there is likely to be extremely limited potential for significant cumulative or in-combination effects due to other plans or projects.

The potential for cumulative or in-combination effects resulting from multiple activities carried out by BEAR is also limited due to the minor and localised scale of most proposed maintenance activities. Although some minor cyclic maintenance could be carried out during or close to the timing of a larger scheme, any planned larger schemes would not be carried out concurrently or within the same financial year due to budget limitations, which reduces the risk of significant cumulative or in-combination effects due to disturbance on and around the bridge. In addition, BEAR Scotland programme all proposed works in line with appropriate guidance and contractual requirements to take into account existing and future planned works on the trunk roads with a view to limiting any cumulative effects relating to traffic management. As a result of this approach, disturbance in localised areas due to construction noise and activities is also limited.

Overall, due to the nature and scale of the proposed activities, the distance between the area of works and the SAC/SSSI, and the limited potential for overlap of any activities during the 10-year programme, it is highly unlikely

that any of the proposed maintenance activities would result in significant cumulative or in-combination effects on the qualifying habitat features of the Kinloch and Kyleakin Hills SAC/SSSI.

Conclusion – qualifying habitats

Considering the above alongside the nature and scale of the proposed 10-year works programme at A87 Skye Bridge, **no LSE have been identified on any of the qualifying habitats of Kinloch and Kyleakin Hills SAC as a result of any of the proposed works on A87 Skye Bridge, and all conservation objectives for these features will be met.** These features are not considered further in this assessment.

Similarly, no significant negative impacts have been identified on the qualifying habitats or associated features of Kinloch and Kyleakin Hills (Monadh Chaol Acainn is Cheann Loch) SSSI.

Assessment against the conservation objectives for otter

None of the proposed works will take place within the boundary of the SAC/SSSI. All proposed works will be highly localised to the A87 Skye Bridge and immediate surroundings; therefore, any works would be located over 3km from the nearest connected coastal area of the SAC/SSSI likely to be used by otters. NatureScot advised during previous consultation that otters associated with the SAC/SSSI are unlikely to use the area in the vicinity of A87 Skye Bridge due to the distance from the SAC/SSSI (NS consultation, Appendix A). However, otters associated with the SAC/SSSI may still commute or forage near A87 Skye Bridge and therefore could be at risk of impacts due to proposed works such as mortality due to construction vehicles or vessels, loss of foraging habitat due to disturbance, and indirect effects due to pollution events.

Therefore, LSE on otters as a result of proposed works cannot be ruled out and this feature is considered further in Stage 4.

Stage 4: Undertake an Appropriate Assessment of the Implications for the Site in View of its Conservation Objectives

Appropriate Assessment

It is the responsibility of the competent authority to carry out the appropriate assessment. The competent authority must consult SNH (NatureScot) on the appropriate assessment. NatureScot can provide advice on what issues should be considered in the appropriate assessment, what information is required to carry out the assessment, in some circumstances carry out an appraisal to inform an appropriate assessment and/or provide comments on an assessment carried out.

An 'appropriate assessment' consists of two parts: a scientific, reasoned appraisal (stage 4) and a conclusion (stage 5). Consider the proposed plan/project, its impact on the qualifying interests assessed against their conservation objectives and take account of any possible in combination effects with other plans or projects.

The following points should be considered:

I. Describe for each qualifying interest the potential impacts of the proposal detailing which aspects or effects of the proposal could impact upon them and their conservation objectives.
II. Evaluate the potential impacts, e.g., whether short/long term, reversible or irreversible, and in relation to the proportion/importance of the interest affected, and the overall effect on the site's conservation objectives. This should be in sufficient detail to ensure all impacts have been considered and sufficiently appraised. Record if additional survey information or specialist advice has been obtained.
III. Each conservation objective should be considered, and a decision reached as to whether the proposal will affect achievement of this objective i.e., whether the conservation objective will be undermined if the proposal is consented to. Restore objectives may have been set where qualifying features of a site are in an unfavourable condition. In such cases the appropriate assessment should consider whether the plan or project would prevent the qualifying feature from being able to be restored.

The assessment in Stage 3 concluded that the proposed 10-year programme of works at A87 Skye Bridge would not result in LSE on the following qualifying features:

- Kinloch and Kyleakin Hills SAC
  - Alpine and subalpine heaths
  - Blanket bog
  - Dry heaths
  - Mixed woodland on base-rich soils associated with rocky slopes
  - Western acidic oak woodland
  - Wet heathland with cross-leaved heath

The assessment in Stage 3 could not rule out LSE on the following qualifying features as a result of proposed works at A87 Skye Bridge. These features are considered further below and have been grouped where possible for brevity.

- Inner Hebrides and the Minches SAC
  - Harbour porpoise
- Lochs Duich, Long, and Alsh MPA NC
  - Flame shell beds
  - Burrowed mud
- Lochs Duich, Long, and Alsh Reefs SAC
  - Reefs
- Loch Carron MPA NC
  - Flame shell beds
  - Maerl beds
- Kinloch and Kyleakin Hills SAC
  - Otter

1. Inner Hebrides and the Minches SAC

Harbour porpoise

As noted above, the Inner Hebrides and the Minches SAC is designated for harbour porpoise and is spanned by the A87 Skye Bridge between the Isle of Skye and Eilean Ban, a small island that lies in the strait between Skye and mainland Scotland.

Although the proposed works at A87 Skye Bridge will not include fishing or use of nets (which could entangle porpoise), some works will require the use of vessels and all works have potential to result in pollution of the marine environment. Therefore, there is a risk of direct impacts on harbour porpoise due to collision with construction vessels and a risk of indirect impacts on harbour porpoise due to disturbance (e.g., underwater noise, loss of foraging habitat), and pollution.

Risk of collision

The A87 Skye Bridge spans the Inner Hebrides and the Minches SAC; therefore, works included in the 10-year programme will take place within or directly over the SAC. However, the majority of schemes and cyclic maintenance will not entail any in-water works or access. The only scheme currently proposed to require in-water works/access is the bentonite replacement scheme, which requires works to take place from barges. Some minor cyclic maintenance on mechanical and electrical components of the bridge as well as some inspections or surveys may also require boats or barges for access. The remaining works would take place on the bridge or by using below-deck access (e.g., scaffolding or underbridge unit). Therefore, the risk of construction vessels colliding with harbour porpoise is negligible for most proposed works.

Works requiring in-water access will be highly localised to the A87 Skye Bridge and its immediate vicinity. Although barges or other vessels will be used for the bentonite replacement scheme and/or other cyclic maintenance or inspections, it is not anticipated that these works will require equipment such as netting or lines that could present a higher risk of entanglement to harbour porpoise. In addition, any boats or vessels would launch from local points where possible to limit travel distances. The bentonite replacement scheme is expected to take approximately four weeks to complete, during which time the barges will be moored to points on each pier, only moving small distances between piers as required. The other cyclic works requiring boat access generally have short durations (e.g., one week or less) and are likely to use small boats. Where the use of boats or other vessels is required to carry out works, all vessels operating during works will adhere to good practice for watching marine wildlife to maintain appropriate speed and distance to reduce the risk of accidental collisions (NS 2017). With these measures in place, and as harbour porpoise are highly mobile, it is expected that they would easily be able to avoid any vessels used for works. Therefore, upon detailed review, the risk of construction vessels colliding with harbour porpoise within the SAC is considered to be low.

Risk of disturbance

The majority of proposed works on A87 Skye Bridge do not entail in-water works or access and therefore will not result in significant underwater noise. The bentonite replacement scheme and some cyclic maintenance or inspections will likely produce some underwater noise due to the use of barges or other boats. However, as noted above, these works are all highly localised and of short duration (less than one month) and will not entail activities (e.g., pile driving, dredging, blasting) that could result in loud underwater noise that could disturb harbour porpoise.

Harbour porpoise are found in coastal seas where boat traffic levels tend to be high. The A87 Skye Bridge is located approximately 1.6km from the port at Kyle of Lochalsh and spans a navigation channel with a high (240-1200 routes per km^2) annual route density (National Marine Plan Interactive). Results of a study by Danuta et al. (2018) suggested that wild harbour porpoises can be disturbed by noise from boats and ships, even when they inhabit areas of high boat traffic (e.g., near harbours). Porpoises in the study were recorded diving deep and/or suspending foraging activities to avoid high-level noise from close ship passes (Danuta et al. 2018). Although there is a high level of existing marine traffic in the vicinity of A87 Skye Bridge, additional use of boats or vessels for works could result in disturbance of harbour porpoise within the SAC and potential displacement from foraging areas. However, boats or barges are only required on a small number of the proposed works and use of boats or barges for works on the bridge is expected to be infrequent and of short durations. The bentonite replacement scheme will use barges moored to the bridge piers to facilitate works; therefore, engine noise will likely be produced only when traveling to/from the bridge and when moving the barge between piers. Similarly, any other maintenance works and/or surveys that would require the use of boats would likely be of very short duration and take place over a short distance (e.g., from Kyle

of Lochalsh to the bridge). The production of underwater noise from boats or other vessels used during works is therefore not expected to be significant.

It is unknown whether the area around the A87 Skye Bridge provides suitable foraging habitat for harbour porpoise; however, even if it is used frequently by harbour porpoise, the low amount of boat traffic required for works is not expected to significantly reduce the foraging area of local harbour porpoise. Furthermore, although these activities could take place during the day or at night, it is expected that most of these works will be carried out during daytime hours for the safety of site staff and will not involve 24-hour working. Most of the porpoises tracked by Danuta et al. (2018) foraged primarily at night. This suggests that any loss of foraging habitat during works would be temporary each day and this area would become available again during periods when works were paused (likely to be at night). In addition, harbour porpoise are highly mobile and would have ample alternative habitat available to them in the wider area. Several studies carried out to examine the effect of simulated increases in boat traffic and/or dredging activities on bottlenose dolphins (*Tursiops truncatus*) in the Moray Firth suggested that localised increases in disturbance due to increased boat traffic and/or dredging activities do not affect the overall viability of the dolphin population or survival rates of calves over the longer term (New et al. 2013, Pirotta et al. 2015). This was mainly due to the high mobility of the dolphins which allows them to avoid areas of higher disturbance. Although this research focused on bottlenose dolphin, harbour porpoise are classed as very high-frequency cetaceans alongside bottlenose dolphins and have a similar sensitivity to underwater noise as well as high mobility and are likely to behave similarly to bottlenose dolphins (Southall et al. 2019). Considering this alongside the low frequency and duration of boat use required for the proposed works, the risk of significant disturbance to harbour porpoise from underwater noise as a result of proposed works is considered to be low.

Upon detailed review, the works are considered to carry limited potential to result in significant underwater noise or impacts on foraging habitat for harbour porpoise. In addition, considering that harbour porpoise are highly mobile and capable of moving to undisturbed areas of the SAC, the risk of significant disturbance on harbour porpoise as a result of the proposed works is considered to be low.

Risk of pollution

For all of the proposed maintenance activities, there is potential for indirect effects on harbour porpoise, their supporting habitats, and prey species as a result of pollution from construction activities or from discharge of water used in hydro-demolition (if required). However, the standard working practices noted in Stage 1 and Appendix B include robust containment measures to prevent pollution events for both in-water works or access and other works. In addition, although hydro-demolition is not expected to be required, additional measures will be in place for this activity to ensure water used in hydro-demolition is captured, appropriately treated to reduce pH and suspended solids, and removed or (where required) discharged under an appropriate authorisation from SEPA. The volume and rate of discharge would be agreed with SEPA and would determine the level of authorisation required to permit discharge. Treatment of water prior to discharge will be carried out with appropriate values for pH and suspended solids stipulated in the SEMP. Typically, a pH value between 5-9 and a suspended solids value between 80-100mg/l is considered acceptable for discharge. Discharging to a location on land will be planned where possible and will be the preferred option to discharging to the marine environment. Authorisation will be sought from SEPA to permit discharge of wastewater as required on a scheme-by-scheme basis as required and no discharges will take place until the appropriate authorisation is secured.

Although the A87 Skye Bridge spans the Inner Hebrides and the Minches SAC, none of the works involve activities that would result in changes to the water levels, tides, or other hydrological processes in the Kyle Akin waterbody. The proposed works in the 10-year programme will be highly localised and adhere to standard good practice for pollution prevention; therefore, no significant effects on fish within the SAC (i.e., prey for harbour porpoise) have been identified.

With these measures in place during works, the risk of indirect effects on harbour porpoise and their supporting habitats and prey species as a result of pollution is limited.

<u>Cumulative and in-combination effects</u>

Although the proposed activities would be highly localised to the A87 Skye Bridge and immediate vicinity, the timing of works over the next 10 years has not yet been confirmed. As noted above, a search will be undertaken for other plans and projects that could have cumulative or in-combination effects in the vicinity of the proposed maintenance works on a case-by-case basis once individual maintenance schemes are designed and submitted for environmental assessment. If there is potential for these effects, additional consultation will be carried out with NS. However,

considering the nature and scale of each of the maintenance activities, there is likely to be limited potential for significant cumulative or in-combination effects due to other plans or projects.

The potential for cumulative or in-combination effects resulting from multiple activities carried out by BEAR is also limited due to the minor and localised scale of most proposed maintenance activities. Although some minor cyclic maintenance could be carried out during or close to the timing of a larger scheme, any planned larger schemes would not be carried out concurrently or within the same financial year due to budget limitations, which reduces the risk of significant cumulative or in-combination effects due to disturbance on and around the bridge. In addition, BEAR Scotland programme all proposed works in line with appropriate guidance and contractual requirements to take into account existing and future planned works on the trunk roads with a view to limiting any cumulative effects relating to traffic management. As a result of this approach, disturbance in localised areas due to construction noise and activities is also limited.

Overall, due to the nature and scale of the proposed activities and the limited potential for overlap of any activities during the 10-year programme, it is highly unlikely that any of the proposed maintenance activities would result in significant cumulative or in-combination effects on the qualifying features of the Inner Hebrides and the Minches SAC.

Conclusion

Upon detailed review, the majority of proposed works at A87 Skye Bridge over the next 10 years have limited potential to result in LSE on harbour porpoise within the SAC. A few activities carry a higher risk of impacting harbour porpoise due to collisions with vessels or disturbance, and all activities have potential to result in pollution. **However, with the above measures in place alongside robust containment measures, these works are not expected to result in Adverse Effects on Site Integrity (AESI) for Inner Hebrides and the Minches SAC, and all conservation objectives for harbour porpoise with the SAC will be met**.

2. Lochs Duich, Long and Alsh MPA NC

Burrowed mud and flame shell beds

As noted above, Lochs Duich, Long and Alsh MPA NC is designated for burrowed mud and flame shell beds and is spanned by the A87 Skye Bridge between the Isle of Skye and Eilean Ban, a small island that lies in the strait between Skye and mainland Scotland.

Although the majority of proposed works at A87 Skye Bridge will not include in-water works, some works will require the use of vessels (e.g., barges) and all works also have potential to result in pollution of the marine environment. Therefore, there is a risk of direct impacts on burrowed mud and flame shell beds due to physical disturbance and/or sedimentation from in-water works and a risk of indirect impacts on these features due to pollution, which can reduce water quality.

Risk of physical damage/sedimentation

The A87 Skye Bridge spans Lochs Duich, Long and Alsh MPA NC; therefore, works included in the 10-year programme will take place within or directly over the MPA NC. However, the majority of schemes and cyclic maintenance will not entail any in-water works or access. The only scheme currently proposed to require in-water works/access is the bentonite replacement scheme, which requires works to take place from barges. Some minor cyclic maintenance on mechanical and electrical components of the bridge as well as some inspections or surveys may also require boats or barges for access. The remaining works would take place on the bridge or by using below-deck access (e.g., scaffolding or underbridge unit). Therefore, the risk of physical damage or sedimentation to burrowed mud or flame shell beds is negligible for most proposed works.

Works requiring in-water access will be highly localised to the A87 Skye Bridge and its immediate vicinity. Although no burrowed mud habitat is present in the immediate vicinity of A87 Skye Bridge, flame shell beds are present directly beneath the bridge and may therefore be at risk of damage from the use of barges required for the bentonite replacement scheme. However, the works will only take place on the bridge piers with barges anticipated to use mooring points on each pier to remain in position. Although barges will likely be required to use anchors to maintain stability during works, barge operators will be instructed not to drop anchor within the area of flame shell bed beneath the bridge. The piers are located over 30m from the area of flame shell bed (Figure 2) and barges would only need to work and anchor in the immediate vicinity of each pier. The bentonite replacement scheme is expected to take approximately four weeks to complete, during which time the barges will remain localised to the bridge piers, only

moving small distances between piers as required. The other cyclic works requiring boat access generally have short durations (e.g., one week or less) and are likely to use small boats which are unlikely to affect the seabed. In addition, no dredging or underwater excavation will be required for any works, which limits the risk of effects from sedimentation. Therefore, upon detailed review, the risk of physical damage or effects of sedimentation on burrowed mud and flame shell beds within the SAC is considered to be low.

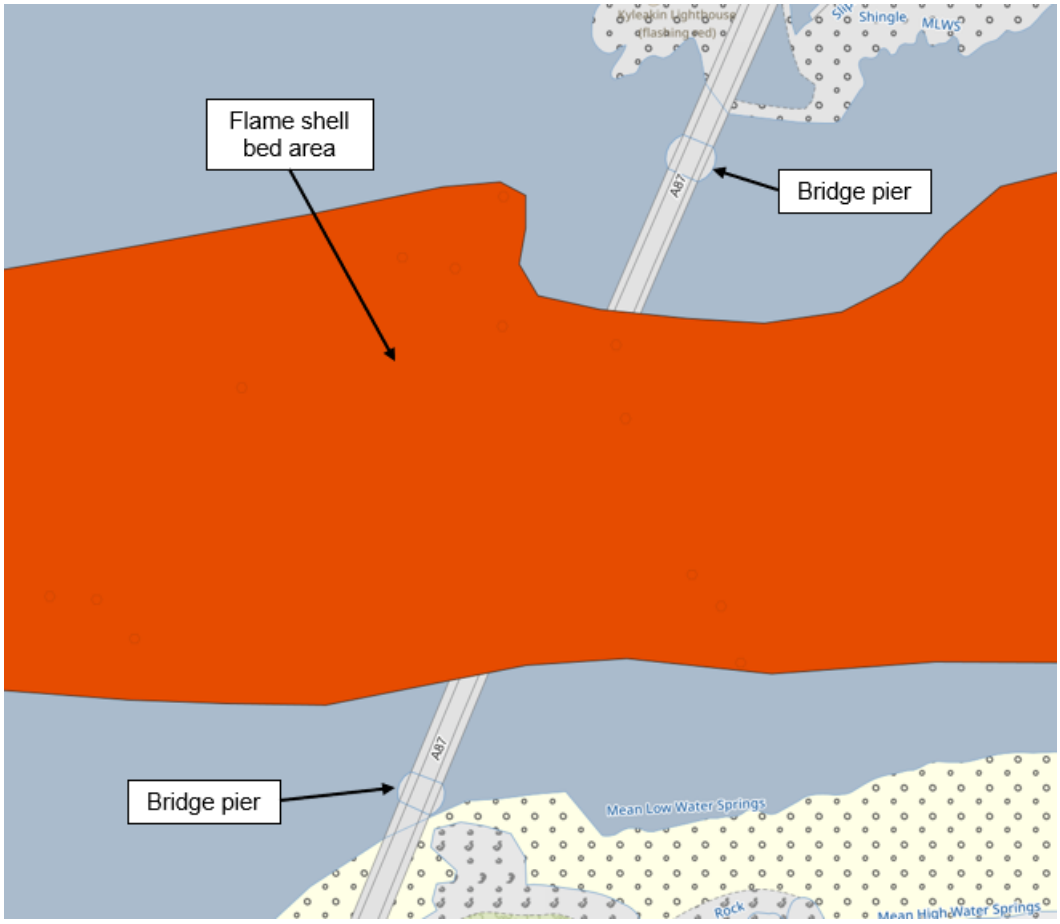


Figure 2. Location of A87 Skye Bridge piers in relation to the area of flame shell bed below the bridge. Source: National Marine Plan Interactive.

Risk of pollution

For all of the proposed maintenance activities, there is potential for indirect effects on burrowed mud and flame shell beds as a result of pollution from construction activities. However, the standard working practices noted in Stage 1 and Appendix B include robust containment measures to prevent pollution events for both in-water works or access and other works. In addition, although hydro-demolition is not expected to be required, additional measures will be in place for this activity to ensure water used in hydro-demolition is captured, appropriately treated to reduce pH and suspended solids, and removed or (where required) discharged under an appropriate authorisation from SEPA. The volume and rate of discharge would be agreed with SEPA and would determine the level of authorisation required to permit discharge. Treatment of water prior to discharge will be carried out with appropriate values for pH and suspended solids stipulated in the SEMP. Typically, a pH value between 5-9 and a suspended solids value between 80-100mg/l is considered acceptable for discharge. Discharging to a location on land will be planned where possible and will be the preferred option to discharging to the marine environment. Authorisation will be sought from SEPA to permit discharge of wastewater as required on a scheme-by-scheme basis as required and no discharges will take place until the appropriate authorisation is secured.

Although the A87 Skye Bridge spans Lochs Duich, Long, and Alsh MPA NC, none of the works involve activities that would result in changes to the water levels, tides, or other hydrological processes in the Kyle Akin waterbody. The proposed works in the 10-year programme will be highly localised and adhere to standard good practice for pollution

prevention; therefore, with these measures in place during works, the risk of indirect effects on burrowed mud and flame shell beds and their associated species as a result of pollution is limited.

Cumulative and in-combination effects

Although the proposed activities would be highly localised to the A87 Skye Bridge and immediate vicinity, the timing of works over the next 10 years has not yet been confirmed. As noted above, a search will be undertaken for other plans and projects that could have cumulative or in-combination effects in the vicinity of the proposed maintenance works on a case-by-case basis once individual maintenance schemes are designed and submitted for environmental assessment. If there is potential for these effects, additional consultation will be carried out with NS. However, considering the nature and scale of each of the maintenance activities, there is likely to be limited potential for significant cumulative or in-combination effects due to other plans or projects.

The potential for cumulative or in-combination effects resulting from multiple activities carried out by BEAR is also limited due to the minor and localised scale of most proposed maintenance activities. Although some minor cyclic maintenance could be carried out during or close to the timing of a larger scheme, any planned larger schemes would not be carried out concurrently or within the same financial year due to budget limitations, which reduces the risk of significant cumulative or in-combination effects due to disturbance on and around the bridge. In addition, BEAR Scotland programme all proposed works in line with appropriate guidance and contractual requirements to take into account existing and future planned works on the trunk roads with a view to limiting any cumulative effects relating to traffic management. As a result of this approach, disturbance in localised areas due to construction noise and activities is also limited.

Overall, due to the nature and scale of the proposed activities and the limited potential for overlap of any activities during the 10-year programme, it is highly unlikely that any of the proposed maintenance activities would result in significant cumulative or in-combination effects on the qualifying features of Lochs Duich, Long and Alsh MPA NC.

Conclusion

Upon detailed review, the use of barges is likely to carry the highest risk of impacting flame shell beds within the MPA NC, as some are present directly beneath A87 Skye Bridge, and all activities have potential to result in pollution. **However, with the above measures in place alongside robust containment measures, these works are not expected to result in AESI for Loch Duich, Long and Alsh MPA NC.**

3. Lochs Duich, Long and Alsh Reefs SAC

Reefs (rocky reefs and horse mussel beds)

As noted above, Lochs Duich, Long and Alsh Reefs SAC is designated for reefs, which can include rocky reefs and horse mussel beds. The A87 Skye Bridge is located just west of the SAC. The western end of the SAC covers part of the Kyle Akin waterbody.

Although the majority of proposed works at A87 Skye Bridge will not include in-water works, some works will require the use of vessels (e.g., barges) and all works also have potential to result in pollution of the marine environment. Therefore, there is a risk of direct impacts on reefs due to physical disturbance and/or sedimentation from in-water works and a risk of indirect impacts on these features due to pollution, which can reduce water quality.

Risk of physical damage/sedimentation

The A87 Skye Bridge is located just west of the boundary of Lochs Duich, Long and Alsh Reefs SAC and horse mussel beds are known to be present approximately 275m east of the bridge; therefore, works included in the 10-year programme will not take place within or directly over the MPA NC, but will take place within or over the same waterbody with direct hydrological connectivity to the MPA NC. However, the majority of schemes and cyclic maintenance will not entail any in-water works or access. The only scheme currently proposed to require in-water works/access is the bentonite replacement scheme, which requires works to take place from barges. Some minor cyclic maintenance on mechanical and electrical components of the bridge as well as some inspections or surveys may also require boats or barges for access. The remaining works would take place on the bridge or by using below-deck access (e.g., scaffolding or underbridge unit). Therefore, the risk of physical damage or sedimentation to reefs is negligible for most proposed works.

Works requiring in-water access will be highly localised to the A87 Skye Bridge and its immediate vicinity and will not entail any dredging or underwater excavation, which limits the risk of effects from sedimentation. No reefs are known

to be present directly beneath the bridge and the nearest horse mussel beds are located approximately 275m from the bridge. Therefore, neither feature is present in the expected working areas around the bridge piers for the bentonite replacement scheme, which will require the use of barges. The bentonite replacement scheme is expected to take approximately four weeks to complete, during which time the barges will remain localised to the bridge, only moving small distances between piers as required. The other cyclic works requiring boat access generally have short durations (e.g., one week or less) and are likely to use small boats which are unlikely to affect the seabed. Therefore, upon detailed review, the risk of physical damage or sedimentation effects on reefs within the SAC is considered to be low.

Risk of pollution

For all of the proposed maintenance activities, there is potential for indirect effects on reefs as a result of pollution from construction activities. However, the standard working practices noted in Stage 1 and Appendix B include robust containment measures to prevent pollution events for both in-water works or access and other works. In addition, although hydro-demolition is not expected to be required, additional measures will be in place for this activity to ensure water used in hydro-demolition is captured, appropriately treated to reduce pH and suspended solids, and removed or (where required) discharged under an appropriate authorisation from SEPA. The volume and rate of discharge would be agreed with SEPA and would determine the level of authorisation required to permit discharge. Treatment of water prior to discharge will be carried out with appropriate values for pH and suspended solids stipulated in the SEMP. Typically, a pH value between 5-9 and a suspended solids value between 80-100mg/l is considered acceptable for discharge. Discharging to a location on land will be planned where possible and will be the preferred option to discharging to the marine environment. Authorisation will be sought from SEPA to permit discharge of wastewater as required on a scheme-by-scheme basis as required and no discharges will take place until the appropriate authorisation is secured.

Although the A87 Skye Bridge spans the Kyle Akin waterbody, which provides hydrological connectivity to Lochs Duich, Long, and Alsh Reefs SAC, none of the works involve activities that would result in changes to the water levels, tides, or other hydrological processes in the Kyle Akin waterbody. The proposed works in the 10-year programme will be highly localised and adhere to standard good practice for pollution prevention; therefore, with these measures in place during works, the risk of indirect effects on reefs and their associated species as a result of pollution is limited.

<u>Cumulative and in-combination effects</u>

Although the proposed activities would be highly localised to the A87 Skye Bridge and immediate vicinity, the timing of works over the next 10 years has not yet been confirmed. As noted above, a search will be undertaken for other plans and projects that could have cumulative or in-combination effects in the vicinity of the proposed maintenance works on a case-by-case basis once individual maintenance schemes are designed and submitted for environmental assessment. If there is potential for these effects, additional consultation will be carried out with NS. However, considering the nature and scale of each of the maintenance activities, there is likely to be limited potential for significant cumulative or in-combination effects due to other plans or projects.

The potential for cumulative or in-combination effects resulting from multiple activities carried out by BEAR is also limited due to the minor and localised scale of most proposed maintenance activities. Although some minor cyclic maintenance could be carried out during or close to the timing of a larger scheme, any planned larger schemes would not be carried out concurrently or within the same financial year due to budget limitations, which reduces the risk of significant cumulative or in-combination effects due to disturbance on and around the bridge. In addition, BEAR Scotland programme all proposed works in line with appropriate guidance and contractual requirements to take into account existing and future planned works on the trunk roads with a view to limiting any cumulative effects relating to traffic management. As a result of this approach, disturbance in localised areas due to construction noise and activities is also limited.

Overall, due to the nature and scale of the proposed activities and the limited potential for overlap of any activities during the 10-year programme, it is highly unlikely that any of the proposed maintenance activities would result in significant cumulative or in-combination effects on the qualifying features of Lochs Duich, Long and Alsh Reefs SAC.

<u>Conclusion</u>

Upon detailed review, none of the proposed works carry a significant risk of directly impacting reefs within the SAC, although all activities have potential to result in pollution. **However, with robust containment measures in place, these works are not expected to result in AESI for Loch Duich, Long and Alsh Reefs SAC.**

4. Loch Carron MPA NC

Flame shell beds and maerl beds
As noted above, Loch Carron MPA NC is designated for flame shell beds and maerl beds. The A87 Skye Bridge is located approximately 320m south of the southern end of the MPA NC.

Although the majority of proposed works at A87 Skye Bridge will not include in-water works, some works will require the use of vessels (e.g., barges) and all works also have potential to result in pollution of the marine environment. Therefore, there is a risk of direct impacts on flame shell beds and maerl beds due to physical disturbance and/or sedimentation from in-water works and a risk of indirect impacts on these features due to pollution, which can reduce water quality.

Risk of physical damage/sedimentation
The A87 Skye Bridge is located just south of the MPA NC boundary; therefore, works included in the 10-year programme will not take place within or directly over the MPA NC, but will take place within or over the same waterbody with direct hydrological connectivity to the MPA NC. However, the majority of schemes and cyclic maintenance will not entail any in-water works or access. The only scheme currently proposed to require in-water works/access is the bentonite replacement scheme, which requires works to take place from barges. Some minor cyclic maintenance on mechanical and electrical components of the bridge as well as some inspections or surveys may also require boats or barges for access. The remaining works would take place on the bridge or by using below-deck access (e.g., scaffolding or underbridge unit). Therefore, the risk of physical damage or sedimentation to flame shell beds or maerl beds is negligible for most proposed works.

Works requiring in-water access will be highly localised to the A87 Skye Bridge and its immediate vicinity and will not entail any dredging or underwater excavation, which limits the risk of effects from sedimentation. No flame shell beds or maerl beds within Loch Carron MPA NC are located in the area of works. Flame shell beds in this site are restricted to Loch Carron, approximately 10km from the bridge (straight-line distance) ((National Marine Plan Interactive). Maerl beds are known to be present closer to the bridge, with the nearest one located approximately 700m north of the bridge (National Marine Plan Interactive). Therefore, neither feature is present in the expected working areas around the bridge piers for the bentonite replacement scheme, which will require the use of barges. Therefore, the risk of physical disturbance to flame shell beds and maerl beds within Loch Carron MPA NC from this activity is negligible. The bentonite replacement scheme is expected to take approximately four weeks to complete, during which time the barges will remain localised to the bridge, only moving small distances between piers as required. The other cyclic works requiring boat access generally have short durations (e.g., one week or less) and are likely to use small boats which are unlikely to affect the seabed. Therefore, upon detailed review, the risk of physical damage and effects of sedimentation on flame shell beds and maerl beds within the SAC is considered to be low.

Risk of pollution
For all of the proposed maintenance activities, there is potential for indirect effects on flame shell beds and maerl beds as a result of pollution from construction activities. However, the standard working practices noted in Stage 1 and Appendix B include robust containment measures to prevent pollution events for both in-water works or access and other works. In addition, although hydro-demolition is not expected to be required, additional measures will be in place for this activity to ensure water used in hydro-demolition is captured, appropriately treated to reduce pH and suspended solids, and removed or (where required) discharged under an appropriate authorisation from SEPA. The volume and rate of discharge would be agreed with SEPA and would determine the level of authorisation required to permit discharge. Treatment of water prior to discharge will be carried out with appropriate values for pH and suspended solids stipulated in the SEMP. Typically, a pH value between 5-9 and a suspended solids value between 80-100mg/l is considered acceptable for discharge. Discharging to a location on land will be planned where possible and will be the preferred option to discharging to the marine environment. Authorisation will be sought from SEPA to permit discharge of wastewater as required on a scheme-by-scheme basis as required and no discharges will take place until the appropriate authorisation is secured.

Although the A87 Skye Bridge spans the Kyle Akin waterbody, which provides hydrological connectivity to Loch Carron MPA NC, none of the works involve activities that would result in changes to the water levels, tides, or other hydrological processes in the Kyle Akin waterbody. The proposed works in the 10-year programme will be highly localised and adhere to standard good practice for pollution prevention; therefore, with these measures in place

during works, the risk of indirect effects on flame shell beds and maerl beds and their associated species as a result of pollution is limited.

Cumulative and in-combination effects

Although the proposed activities would be highly localised to the A87 Skye Bridge and immediate vicinity, the timing of works over the next 10 years has not yet been confirmed. As noted above, a search will be undertaken for other plans and projects that could have cumulative or in-combination effects in the vicinity of the proposed maintenance works on a case-by-case basis once individual maintenance schemes are designed and submitted for environmental assessment. If there is potential for these effects, additional consultation will be carried out with NS. However, considering the nature and scale of each of the maintenance activities, there is likely to be limited potential for significant cumulative or in-combination effects due to other plans or projects.

The potential for cumulative or in-combination effects resulting from multiple activities carried out by BEAR is also limited due to the minor and localised scale of most proposed maintenance activities. Although some minor cyclic maintenance could be carried out during or close to the timing of a larger scheme, any planned larger schemes would not be carried out concurrently or within the same financial year due to budget limitations, which reduces the risk of significant cumulative or in-combination effects due to disturbance on and around the bridge. In addition, BEAR Scotland programme all proposed works in line with appropriate guidance and contractual requirements to take into account existing and future planned works on the trunk roads with a view to limiting any cumulative effects relating to traffic management. As a result of this approach, disturbance in localised areas due to construction noise and activities is also limited.

Overall, due to the nature and scale of the proposed activities and the limited potential for overlap of any activities during the 10-year programme, it is highly unlikely that any of the proposed maintenance activities would result in significant cumulative or in-combination effects on the qualifying features of Loch Carron MPA NC.

Conclusion

Upon detailed review, the risk of physical damage or effects of sedimentation on flame shell beds and maerl beds within the MPA NC is highly limited due to the distance between the area of works and known locations of these features. Although all activities have potential to result in pollution, the robust containment measures required during works in combination with the distance to the known locations of features within the site limit the risk of indirect effects due to pollution. **Therefore, none of the proposed works are expected to result in AESI for Loch Carron MPA NC.**

5. Kinloch and Kyleakin Hills SAC

Includes assessment of otters within Kinloch and Kyleakin Hills (Monadh Chaol Acainn is Cheann Loch) SSSI for completeness.

Otter

As noted above, Kinloch and Kyleakin Hills SAC is designated for otter alongside several habitat features. The A87 Skye Bridge is located approximately 3.1km from the nearest coastal area of the SAC with hydrological connectivity to the bridge.

None of the proposed works will take place within the SAC/SSSI and therefore will not result in the loss of any supporting habitat for otters within the SAC/SSSI. Some of the proposed works at A87 Skye Bridge will require the use of vessels in the water and all works will require the use of vehicles on the trunk road. All works also have potential to result in pollution of the marine environment. Although otters associated with the SAC/SSSI may be unlikely to travel as far as A87 Skye Bridge, they may still forage or commute in the area of works. Therefore, there is a risk of direct impacts on otters due to collision with construction vehicles or vessels and a risk of indirect impacts on otters due to disturbance (e.g., construction noise, loss of foraging habitat), and pollution.

Risk of collision

Previous surveys carried out by BEAR Scotland and/or subcontractors have recorded numerous signs of otters in the vicinity of A87 Skye Bridge. Potential and confirmed resting places have also been identified. It is unknown whether the otters in the vicinity of the bridge are also associated with the SAC/SSSI; however, this is a possibility and otters in the area may be at risk of mortality due to construction vehicles and/or vessels.

The majority of schemes and cyclic maintenance will not entail any in-water works or access. The only scheme currently proposed to require in-water works/access is the bentonite replacement scheme, which requires works to take place from barges. Some minor cyclic maintenance on mechanical and electrical components of the bridge as well as some inspections or surveys may also require boats or barges for access, although it is not anticipated that any works will require equipment such as netting or lines that could present a higher risk of entanglement to otters. Otters in the area are likely to stay close to the shore when foraging and are likely to be accustomed to the movement of boats and other vessels in the Kyle Akin waterbody. They are also highly mobile and it is expected that they would easily be able to avoid any vessels or boats required for works on the bridge. In addition, any boats or vessels would launch from local points where possible to limit travel distances. Where the use of boats or other vessels is required to carry out works, all vessels operating during works will adhere to good practice for watching marine wildlife to maintain appropriate speed and distance to reduce the risk of accidental collisions (NS 2017). Otters in the vicinity of A87 Skye Bridge are also likely to be accustomed to vehicle movements on the A87 trunk road. Although the proposed works will likely require traffic management and additional construction vehicles during works, it is unlikely that this will significantly increase the average number of vehicles using the trunk road. In addition, the following good practice measures will be in place to reduce the risk of construction vehicles colliding with otters during works:

- The 'Working with Otters' Toolbox Talk will be included in the SEMP for each scheme and provided to all site staff prior to works commencing.
- The working area and any machinery stored on site will be checked at the start of each shift for the presence of resting otters. A soft start will be implemented to ensure a gradual increase in noise and activity.
- Any excavations, entrances to pipes/drains, or areas where an animal could be trapped (e.g., storage containers) will be covered over when not in use, at the end of each shift, and following completion of the works to avoid otters becoming trapped.
- If excavations (e.g., trenches) cannot be covered, escape ramps must be installed to allow trapped otters to escape.
- If fencing is used at any point during works, a gap of 200mm from ground level will be provided, allowing free passage for otters and preventing entrapment.
- Passage for otter under the bridge and along watercourses and shorelines must be maintained for the duration of works where possible.
- If otters are observed in the area of works prior to works starting, no works will commence until the otters have moved at least 50m away.
- If otters are observed during works, all works will cease until the otters have moved at least 50m away.

With these measures in place, the risk of direct effects (e.g., mortality due to construction vehicles or vessels) on otters as a result of proposed works is considered to be low.

Risk of disturbance

Otters are known to be present in the vicinity of A87 Skye Bridge and it is possible that some of the local population is also associated with the SAC/SSSI. The works have potential to result in noise or activities that could disturb otters or their resting places. As all of the proposed works will be highly localised to the A87 Skye Bridge structure and its immediate vicinity, it is not expected that any works will result in the destruction of otter resting places that may be present near the works. Therefore, the main risk is likely to be from disturbance due to construction activities.

Works may result in minor, temporary, and highly localised disturbance to otters that may forage or commute in the vicinity of the A87 Skye Bridge, or to otter resting places within accepted disturbance buffers. Otters within the vicinity of the scheme are likely to be habituated to existing levels of noise and activity due to traffic on the A87 and the proposed works are unlikely to result in significantly higher levels of noise than baseline levels. None of the works involve activities that would result in changes to the water levels, tides, or other hydrological processes in the surrounding waterbodies. In-water works may temporarily reduce available foraging areas, but the area around A87 Skye Bridge is likely sub-optimal for foraging otters due to strong currents and there is likely to be abundant habitat of higher foraging quality available in the wider coastal area. Otters are also highly mobile and will have ample alternative habitat available to them outside of disturbance buffers to which they could easily move to avoid construction noise. Therefore, any potential loss of foraging habitat is likely to be minimal and will not significantly affect otters associated with the SAC/SSSI.

Otter resting places may be present within the vicinity of A87 Skye Bridge; therefore, identification of otter resting places within the vicinity of works will reduce the risk of disturbance impacts on the local otter population as a result

of construction. To identify any resting places that could be disturbed by works, otter surveys to 200m along coastlines from proposed works will be carried out ahead of any works that may result in disturbance to local otters or their resting places. The objective of these surveys is to identify any field signs of otters (e.g., spraint, footprints, feeding remains) and any active or potential otter resting places within accepted disturbance buffers of works following NS guidance (NS, 2020). Pre-construction surveys will be timetabled into project plans as required, which will enable checks for any new holts or resting places that may have become occupied after the original survey, and to ensure the measures proposed to minimise impacts on otters remain appropriate. Pre-construction surveys will be completed as close to the construction period as possible, and no more than 3 months before the start of works. The results of the surveys will inform the need for any licencing requirements.

BEAR Scotland holds an Organisational Otter Licence (240771) issued by NS to permit disturbance to non-breeding otter resting places in the vicinity of works if any are discovered during pre-construction surveys. The Species Protection Plan that supports the licence details measures to be put in place for various scenarios, including (i) the identification of otter field signs but no resting places, (ii) identification of non-breeding resting places within disturbance buffers, and (iii) identification of natal holts within disturbance buffers. The Organisational Otter Licence does not permit disturbance to natal holts or destruction or obstruction of any otter resting places (including natal holts), which would require a separate derogation licence (for non-natal resting places) or re-programming of the works until all cubs have left the natal holt. These cases are not intended to be covered by this HRA and would instead be assessed in a separate, scheme-specific HRA in consultation with NS.

The Organisational Otter Licence Species Protection Plan details a range of measures, including general measures that would be in place regardless of the results of pre-construction otter surveys. For all works, whether otter resting places are found within disturbance buffers or the works or not, the following general measures will be in place to reduce the risk of disturbance to otters during construction:

- Where possible, works will be programmed for daylight hours. If artificial lighting is required, it should be used for as short a duration as possible and directed on the immediate area of works. Artificial lighting (including lights from the site compound and other infrastructure) should avoid being directed onto nearby watercourses or habitats as far as is safe and reasonably practicable.
- The best practice means, as defined in Section 72 of the Control of Pollution Act 1974 and BS5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites will always be employed to reduce noise produced during works as much as possible.
- Plant, machinery and equipment fitted with effective silencers where available will be utilised for the works. Where fitted, and where permitted under Health and Safety requirements, white noise reversing alarms should be utilised during construction.
- Where possible, inherently quiet plant should be selected for construction works. Where appropriate, pumps and generators will be sound-reduced models with fitted, lined, and sealed acoustic covers.
- All plant will be operated in such a way that minimises noise emissions and be switched off when not in use.
- All ancillary plant such as generators will be positioned so as to cause minimum noise disturbance. Where deemed necessary, acoustic screens will be utilised.

If active otter couches (i.e., non-breeding resting places) are found within 30m of works, the Organisational Otter Licence Species Protection Plan details that the following measures will be in place in addition to those above:

- All conditions of BEAR Scotland's Organisational Otter Licence will be adhered to during works and a copy of the licence will be kept on site for inspection at any time.
- The site supervisor will brief all site staff during site inductions to ensure that everyone is aware of the presence of otters, required mitigation measures, legal obligations, and licensing conditions.
- Exclusion zones will be established around the resting place prior to works commencing and a map will be provided in the SEMP clearly detailing exclusion zones that site staff must avoid. All site staff will be briefed on the location of any exclusion zones.
- Any fencing used for exclusion zones will be removed on completion of the works.

If a potential holt is found within 200m of works that could be disturbed by works, the Organisational Otter Licence Species Protection Plan details that the following measures will be in place in addition to the general measures above:

- If a possible holt is found, camera trapping will be carried out by persons holding a personal otter licence (the licence holder will submit a licence return detailing all camera trapping activity) to determine the status of the holt (i.e., non-breeding or breeding). The use of infra-red cameras minimises disturbance to otters.
- No works will be carried out until the status of the holt has been established and it has been determined that all young, if present, are independently able to move to another holt.

If otter surveys identify non-breeding resting places within 30m of works, use of the Organisational Otter Licence held by BEAR Scotland would be required and all conditions of the licence and associated Species Protection Plan would be adhered to. Where deemed appropriate, an Ecological Clerk of Works (ECoW) will attend site to undertake checks for otters and to monitor good practice and mitigation measures. In this circumstance, the licence conditions and Species Protection Plan ensure that any effects on non-breeding otter resting places are temporary, very small in scale, and would not result in a measurable effect on the local otter population. All proposed works will be temporary, highly-localised, and mostly limited to the bridge structure and trunk road boundary. Therefore, with the use of pre-construction otter surveys and the above measures in place, the risk of significant disturbance to otters associated with Kinloch and Kyleakin Hills SAC/SSSI is considered to be low.

Risk of pollution

For all of the proposed works, there is potential for indirect effects on otters, their supporting habitats, and prey species as a result of pollution from construction activities. However, the standard working practices noted in Stage 1 and Appendix B include robust containment measures to prevent pollution events for both in-water works or access and other works. In addition, although hydro-demolition is not expected to be required, additional measures will be in place for this activity to ensure water used in hydro-demolition is captured, appropriately treated to reduce pH and suspended solids, and removed or (where required) discharged under an appropriate authorisation from SEPA. The volume and rate of discharge would be agreed with SEPA and would determine the level of authorisation required to permit discharge. Treatment of water prior to discharge will be carried out with appropriate values for pH and suspended solids stipulated in the SEMP. Typically, a pH value between 5-9 and a suspended solids value between 80-100mg/l is considered acceptable for discharge. Discharging to a location on land will be planned where possible and will be the preferred option to discharging to the marine environment. Authorisation will be sought from SEPA to permit discharge of wastewater as required on a scheme-by-scheme basis as required and no discharges will take place until the appropriate authorisation is secured.

Although the A87 Skye Bridge spans the Kyle Akin waterbody, which provides hydrological connectivity to coastal areas of Kinloch and Kyleakin Hills SAC, none of the works involve activities that would result in changes to the water levels, tides, or other hydrological processes in the Kyle Akin waterbody that could impact fish or other marine species that provide a food source for otters. The proposed works in the 10-year programme will be highly localised and adhere to standard good practice for pollution prevention; therefore, no significant effects on fish or other food sources for otters within the SAC have been identified.

With these measures in place during works, the risk of indirect effects on otters and their supporting habitats and prey species as a result of pollution is limited.

<u>Cumulative and in-combination effects</u>

Although the proposed activities would be highly localised to the A87 Skye Bridge and immediate vicinity, the timing of works over the next 10 years has not yet been confirmed. As noted above, a search will be undertaken for other plans and projects that could have cumulative or in-combination effects in the vicinity of the proposed maintenance works on a case-by-case basis once individual maintenance schemes are designed and submitted for environmental assessment. If there is potential for these effects, additional consultation will be carried out with NS. However, considering the nature and scale of each of the maintenance activities, there is likely to be limited potential for significant cumulative or in-combination effects due to other plans or projects.

The potential for cumulative or in-combination effects resulting from multiple activities carried out by BEAR is also limited due to the minor and localised scale of most proposed maintenance activities. Although some minor cyclic maintenance could be carried out during or close to the timing of a larger scheme, any planned larger schemes would not be carried out concurrently or within the same financial year due to budget limitations, which reduces the risk of significant cumulative or in-combination effects due to disturbance on and around the bridge. In addition, BEAR Scotland programme all proposed works in line with appropriate guidance and contractual requirements to take into account existing and future planned works on the trunk roads with a view to limiting any cumulative effects relating

to traffic management. As a result of this approach, disturbance in localised areas due to construction noise and activities is also limited.

Overall, due to the nature and scale of the proposed activities and the limited potential for overlap of any activities during the 10-year programme, it is highly unlikely that any of the proposed maintenance activities would result in significant cumulative or in-combination effects on otters within Kinloch and Kyleakin Hills SAC/SSSI.

Conclusion

Upon detailed review, the majority of proposed works at A87 Skye Bridge over the next 10 years have limited potential to result in LSE otters within the SAC/SSSI. There is a minor risk of otters being impacted by collisions with construction vehicles or vessels. Most proposed works have potential to result in disturbance of local otters or resting places, and all activities have potential to result in pollution. **However, with the use of otter surveys and the mitigation measures detailed above alongside robust containment measures, the proposed works are not expected to result in AESI for otters within Kinloch and Kyleakin HIlls SAC, and all conservation objectives for this feature will be met**.

Similarly, no significant negative impacts have been identified on otters within Kinloch and Kyleakin Hills (Monadh Chaol Acainn is Cheann Loch) SSSI as a result of proposed works.

Stage 5: Can it be Ascertained that the Proposal Will Not Adversely Affect the Integrity of the Site?

Assessment for AESI
In the light of the appraisal, ascertain whether the proposal will not adversely affect the integrity of the site. Conclusions should be reached beyond reasonable scientific doubt. If more than one SAC and/or SPA is involved, give separate conclusions. If mitigation or modifications are required, detail these below.

LSE could not be ruled out for the following qualifying features:

- Inner Hebrides and the Minches SAC
  - Harbour porpoise
- Lochs Duich, Long, and Alsh MPA NC
  - Flame shell beds
  - Burrowed mud
- Lochs Duich, Long, and Alsh Reefs SAC
  - Reefs
- Loch Carron MPA NC
  - Flame shell beds
  - Maerl beds
- Kinloch and Kyleakin Hills SAC
  - Otter

However, with the measures outlined in Stage 4 in place, alongside the proper application of the standard working practices and measures described in Stage 1 and Appendix B, **it is concluded that the works will not result in AESI for the above designated sites**, either alone or in combination with other plans or projects.

Similarly, with the proper application of the standard working practices and measures described in Stage 1 and Appendix B, it is concluded that the proposed maintenance activities **would not result in LSE and therefore would also not result in AESI on the following qualifying features of Kinloch and Kyleakin Hills SAC**:

- Kinloch and Kyleakin Hills SAC
  - Alpine and subalpine heaths
  - Blanket bog
  - Dry heaths
  - Mixed woodland on base-rich soils associated with rocky slopes
  - Western acidic oak woodland
  - Wet heathland with cross-leaved heath

Modifications Required to Ensure Adverse Effects are Avoided and Reasons for These

Required Modifications
Only list those modifications (i.e., further mitigation) that have been identified as being required to prevent there being an adverse effect on site integrity. Do not include mitigation that has already been planned in the plan/project or best practice that is already being followed unless you believe these should be added as conditions to the permission given.

Following detailed review, the below measures to reduce the effects of noise, artificial lighting, and pollution from works are considered suitable to ensure that the works do not result in AESI on Inner Hebrides and the Minches SAC, Lochs Duich, Long and Alsh Reefs SAC, Lochs Duich, Long, and Alsh MPA NC, Loch Carron MPA NC, and Kinloch and Kyleakin Hills SAC:

- Boats/barges to be launched from local ports where possible to limit travel distances
- All vessels operating during works will adhere to good practice for watching marine wildlife to maintain appropriate speed and distance to reduce the risk of accidental collisions (NS 2017).
- Barges used for the bentonite replacement works will not be permitted to use anchors within the area of flame shell bed beneath the central part of A87 Skye Bridge.
- Where possible, works requiring the use of boats or vessels will be carried out during daytime hours and will not entail 24-hour working.
- If discharge of water used for hydro-demolition is required, an appropriate level of authorisation must be secured from SEPA prior to any discharge of water.
- Hydro-demolition water must be appropriately treated (e.g., via Siltbuster) prior to discharge to reduce pH and suspended solids to acceptable levels (typical values are 5-9 for pH and 80-100mg/l for suspended solids).
- Discharge of hydro-demolition water will be done on land where possible to avoid discharging to the marine environment.
- The 'Working with Otters' Toolbox Talk will be included in the SEMP for each scheme and provided to all site staff prior to works commencing.
- Otter surveys and/or pre-construction otter surveys will be timetabled into project plans as required, which will enable checks for any new holts or resting places that may have become occupied after the original survey, and to ensure the measures proposed to minimise impacts on otters remain appropriate.
- Pre-construction surveys will be completed as close to the construction period as possible, and no more than 3 months before the start of works.
- Where deemed appropriate, an ECoW will attend site to undertake checks for otters and to monitor good practice and mitigation measures.
- The working area and any machinery stored on site will be checked at the start of each shift for the presence of resting otters. A soft start will be implemented to ensure a gradual increase in noise and activity.
- Any excavations, entrances to pipes/drains, or areas where an animal could be trapped (e.g., storage containers) will be covered over when not in use, at the end of each shift, and following completion of the works to avoid otters becoming trapped.
- If excavations (e.g., trenches) cannot be covered, escape ramps must be installed to allow trapped otters to escape.
- If fencing is used at any point during works, a gap of 200mm from ground level will be provided, allowing free passage for otters and preventing entrapment.
- Passage for otter under the bridge and along watercourses and shorelines must be maintained for the duration of works where possible.
- If otters are observed in the area of works prior to works starting, no works will commence until the otters have moved at least 50m away.
- If otters are observed during works, all works will cease until the otters have moved at least 50m away.
- Where possible, works will be programmed for daylight hours. If artificial lighting is required, it will be used for as short a duration as possible and must be directed on the immediate area of works and away from watercourses and suitable bankside habitat as far as is safe and reasonably practicable.

- If use of BEAR Scotland's Organisational Otter Licence is required, all conditions of BEAR Scotland's Organisational Otter Licence will be adhered to during works and a copy of the licence will be kept on site for inspection at any time.
- The site supervisor will brief all site staff during site inductions to ensure that everyone is aware of the presence of otters, required mitigation measures, legal obligations, and licensing conditions.
- Where required, exclusion zones will be established around otter resting places prior to works commencing and a map will be provided in the SEMP clearly detailing exclusion zones that site staff must avoid. All site staff will be briefed on the location of any exclusion zones.
- Any fencing used for exclusion zones will be removed on completion of the works.
- If a possible otter holt is found within disturbance buffers, camera trapping using infra-red cameras will be carried out by persons holding a personal otter licence to determine the status of the holt.
- No works will be carried out until the status of the holt has been established and it has been determined that all young, if present, are independently able to move to another holt.
- The best practice means, as defined in Section 72 of the Control of Pollution Act 1974 and BS5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites will always be employed to reduce noise produced during works as much as possible.
- Plant, machinery and equipment fitted with effective silencers where available will be utilised for the works. Where fitted, and where permitted under Health and Safety requirements, white noise reversing alarms should be utilised during construction.
- Where possible, inherently quiet plant should be selected for construction works. Where appropriate, pumps and generators will be sound-reduced models with fitted, lined, and sealed acoustic covers.
- All plant will be operated in such a way that minimises noise emissions and be switched off when not in use.
- All ancillary plant such as generators will be positioned so as to cause minimum noise disturbance. Where deemed necessary, acoustic screens will be utilised.

Advice Sought

Consultation
Include here details of, or clear reference to, any advice sought. If an appropriate assessment has been carried out NatureScot must be consulted.

Due to the proximity of A87 Skye Bridge to several designated sites, advice on potential impacts of works was sought from NatureScot to inform this assessment.

Rachael Haylett, Operations Officer at NatureScot, provided comment via email (received 28/02/2024) on the proposed scheme and cyclic maintenance works for A87 Skye Bridge and potential impacts of works on the nearby designated sites. This advice has informed our assessment which will be submitted to Marine Directorate in support of a 10-year marine licence application. A copy of this consultation is included in Appendix A.

Conclusion in Relation to Plan or Project

Conclusion
In view of the appraisal above select the appropriate response position and whether the plan or project can be consented/approved/undertaken. Note: this conclusion is just in relation to effects on a European site. There may be impacts to other natural heritage interests that also need to be considered.

This HRA has been undertaken to assess the potential effects of a 10-year programme of works at A87 Skye Bridge (described in Stage 1) on the qualifying features of the below European Sites, and has **concluded that the proposed activities will not result in LSE on the qualifying habitats of Kinloch and Kyleakin Hills SAC. Although LSE on the qualifying feature of otter within Kinloch and Kyleakin HIlls SAC and the qualifying features of Inner Hebrides and the Minches SAC, Lochs Duich, Long and Alsh Reefs SAC, Lochs Duich, Long and Alsh MPA NC, and Loch Carron MPA NC could not be ruled out, it has been concluded that the proposed works will not result in AESI on these features provided that the above mitigation measures are in place.**

The assessment has considered standard working practices to comply with relevant legislation (as described in Stage 1 and Appendix B) in the above conclusion. While these standard working practices will benefit the qualifying features of the above sites, these working practices and measures are not being undertaken specifically for the qualifying interests. Instead, these working practices are required to comply with The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended).

References

Danuta, M. W., johnson, J. T., Siebert, U., Galatius, A., Dietz, R., and Madsen, T. 2018. High rates of vessel noise disrupt foraging in wild harbour porpoise (*Phocoena phocoena*). Proceedings of the Royal Society B. Available from: High rates of vessel noise disrupt foraging in wild harbour porpoises (Phocoena phocoena) | Proceedings of the Royal Society B: Biological Sciences (royalsocietypublishing.org).

Marine Scotland. National Marine Plan Interactive Version 1.6.8.125. Available from: Marine Scotland - National Marine Plan Interactive (atkinsgeospatial.com).

Marine Directorate. 2018. Flame shell beds. Available from: Flame Shell Beds | marine.gov.scot.

NatureScot. 2017. A Guide to Best Practice for Watching Marine Wildlife. Available from: A Guide to Best Practice for Watching Marine Wildlife (nature.scot).

NatureScot. 2020. Conservation and Management Advice: Inner Hebrides and the Minches SAC.

NatureScot. 2023a. Burrowed mud. Available from: Burrowed mud | NatureScot.

NatureScot. 2023b. Maerl beds. Available from: Maerl beds | NatureScot.

NatureScot. 2024. Conservation and Management Advice: Loch Carron MPA.

NatureScot. 2024. Conservation and Management Advice: Lochs Duich, Long and Alsh Reefs SAC and Lochs Duich, Long and Alsh MPA.

NetRegs (2021). Guidance for Pollution Prevention (GPPs) – Full list. Available from: https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/.

New, L.F., Harwood, J., Thomas, L., Donovan, C., Clark, J.S., Hastie, G., Thompson, P.M., Cheney, B., Scott-Hayward, L. and Lusseau, D. 2013. Modelling the biological significance of behavioural change in coastal bottlenose dolphins in response to disturbance. Funct Ecol, 27: 314-322.

Pirotta, E., Harwood, J., Thompson, P.M., Donovan, C., Lusseau, D. 2015. Predicting the effects of human developments on individual dolphins to understand potential long-term population consequences. Proc. R. Soc. B. 282: 20152109.

Scottish Environment Protection Agency (2009). Engineering in the Water Environment Good Practice Guide Temporary Construction Methods.

Scottish Environment Protection Agency (2010). Engineering in the Water Environment Good Practice Guide River Crossings.

Scottish Environment Protection Agency (2024). The Water Environment (Controlled Activities) (Scotland) Regulations. A Practical Guide. Version 9.4.

Southall, B. L., Finneran, J. J., Reichmuth, C., Nachtigall, P. E., Ketten, D. R., Bowles, A. E., Ellison, W. T., Nowacek, D. P., and Tyack, P. L. 2019. Marine mammal noise exposure criteria: updated scientific recommendations for residual hearing effects. Aquatic Mammals 45(2): 125-232.

Tourgaard, J., Beedholm, K., Madsen, P.T. 2022. Thresholds for noise induced hearing loss in harbour porpoises and phocid seals. J. Acoust. Soc. Am. 151, 4252-4263.

Appendix A - Consultation

From: Linda Ponath <LPonath@bearscotland.co.uk>
Sent: Tuesday, February 6, 2024 3:25 PM
To: CentralHighland <CentralHighland@Nature.scot>
Cc: NW Environment <NWEnvironment@bearscotland.co.uk>
Subject: A87 Skye Bridge and Carrich Bridge HRA Scoping

Good afternoon,

BEAR Scotland hold several 5-year marine licences (MLs) for major bridges on the NW trunk road network that will be expiring soon. We are currently working on applications for new long-term MLs that will be valid for 10 years, including ones for A87 Skye Bridge and A87 Carrich Bridge. Both of the current 5-year MLs for these bridges will expire in April 2024.

The new 10-year MLs will cover a range of planned schemes as well as routine/cyclic maintenance that may be required between 2024-2034. The attached 'Appendix C Supporting Information – A87 Carrich bridge' and 'Appendix C Supporting Information – A87 Skye Bridge' documents include details of works that may take place on each bridge within the next 10 years. As part of the ML applications, we are working on new HRAs to assess potential impacts of the 10-year programme of works on nearby designated sites for each bridge.

I have undertaken a scoping exercise to identify European sites (and overlapping Sites of Special Scientific Interest (SSSIs)) that may be impacted by works on the bridge. As these HRAs are to inform licensing for marine works, we have included Marine Protected Areas for Nature Conservation (MPA NC) in the scoping exercise. The attached 'A87 Carrich Bridge 10YR ML HRA scoping notes for NS' and 'A87 Skye Bridge 10YR ML HRA scoping notes for NS' documents include a high-level assessment of potential connectivity and impacts for designated sites within 20km of each bridge. The 20km distance is primarily to capture sites where there may be potential connectivity via waterways or species that can travel large distances to forage and commute, and therefore may use Loch Alsh/Inner Sound near Skye and Carrich Bridge. I have started writing HRA Proformas, but as there are several sites to consider, I wanted to confirm which ones should receive further assessment in the HRA Proformas for each bridge.

I would very much appreciate if you could review the attached documents and advise whether you agree with my summary of sites to include in the HRA Proforma for each bridge? For each bridge, I am expecting that the same three SACs (including a component SSSI) and three MPA NCs will require Appropriate Assessment. There is potential for works to result in Likely Significant Effects (LSE), although it would be helpful if you could provide advice on locations of qualifying features within the sites if possible, particularly for marine features. I would be happy to discuss further if you disagree or suggest any changes on sites to be scoped in or out of the HRA Proforma for each bridge.

Please get in touch with any questions or if you need more information on anything.

We are currently working on a scoping exercise for a new 10-year ML at A87 Dornie Bridge as well. The programme of works is being finalised so we will plan to be in touch when that becomes available.

Many thanks,
Linda

Linda Ponath
Environmental Advisor | BEAR Scotland | North West Unit
Working days Mon-Thurs
Mobile: Redacted E-mail: **LPonath@bearscotland.co.uk**
Visit us @ www.bearscot.com

Please consider the environment before printing this email

From: Rachael Haylett <Rachael.Haylett@nature.scot>
Sent: Wednesday, February 28, 2024 3:00 PM
To: Linda Ponath <LPonath@bearscotland.co.uk>
Subject: RE A87 Skye Bridge and Carrich Bridge HRA Scoping

Good afternoon Linda

Thank you for consulting us on your HRA Scoping notes prior to submitting 10-year Marine License applications for the Skye Bridge and Carrich causeway. The main risks to designated sites would be material falling from the bridge during works or materials entering the water during drainage cleaning. Please note that we will receive this consultation from the Marine Directorate for comment in due course, and therefore this is informal advice and a more detailed assessment will be undertaken when all the supporting documents are available through the Marine License application.

Background
We provided pre-application advice on the previous 5-year maintenance programme in 2018, and responded to the Marine License consultation in 2019. This request for scoping comments for a 10-year maintenance programme includes additional works which were not part of the 5-year maintenance programme.

Our advice
We agree that the following Protected Areas should be scoped in for HRA/MPA Appraisal for the proposed works on both the Skye Bridge and the Carrich causeway:

- Inner Hebrides and the Minches SAC
- Lochs Duich, Long & Alsh NC MPA
- Lochs Duich, Long & Alsh SAC
- Kinloch and Kyleakin Hills SAC
- Kinloch and Kyleakin Hills (Monadh Chaol Acainn is Cheann Loch) SSSI
- Loch Carron NC MPA

Inner Hebrides and the Minches Special Area of Conservation (SAC)
Lochs Duich, Long and Alsh Special Area of Conservation (SAC)
We agree with the likely conclusion of LSE for the above Protected Areas due to the risk of pollutants entering the water during the maintenance works. However, provided standard best practice mitigation is applied to reduce the risk of pollutants entering the water, the applicant should be able to demonstrate that there will be NAESI. It would be helpful if permanent and temporary drainage outflows could be highlighted in any plans that are submitted as part of the Marine License application.

Lochs Duich, Long and Alsh Nature Conservation Marine Protected Area (NC MPA)
Loch Carron Nature Conservation Marine Protected Area (NC MPA)
In our view, the proposed works are capable of affecting the features of the above MPAs, but insignificantly, provided the developer adheres to a suite of good practice and management measures to ensure prevention of any pollution entering the sea. We advise that these mitigation measures are provided in a method statement as part of the full Marine License application. Strict pollution prevention is especially essential for the flame shell bed feature of Lochs Duich, Long and Alsh NC MPA, as it is located directly beneath the Skye Bridge.

Kinloch and Kyleakin Hills Special Area of Conservation (SAC) & Kinloch and Kyleakin Hills (Monadh Chaol Acainn is Cheann Loch) Site of Special Scientific Interest (SSSI)
We agree with the likely conclusion of No Likely Significant Effect (No LSE) for the otter feature of the above Protected Areas. Few otters from the SAC/SSSI are likely to visit the waters around the bridge due to the distances involved. Those that do should be protected by good practice and management measures which will minimise the risk of pollution entering the sea, and the strong currents which would allow swift dispersal of any minimal amounts of pollution which could enter the waterbody. Any disturbance from the work would be considered as an EPS rather than an SAC issue and would be covered by licensing, see https://www.nature.scot/doc/standing-advice-planning-consultations-otters.

Red Rocks and Longay Nature Conservation Marine Protected Area (NC MPA)
With regards to Red Rocks and Longay NC MPA, this Protected Area was designated for its skate hatchery, and due to distance from the MPA, and the strong currents as noted above, we advise that this designated site can be scoped out from MPA Appraisal.

Scoped-Out Protected Areas
We agree with the Scoping Notes documents for both the Skye Bridge and the Carrich Causeway regarding the Scoping Out of all other Protected Areas, for the reasons listed.

Please note that decisions regarding LSE/NAESI will be undertaken by the competent authority when they carry out their assessments.

Please do not hesitate to contact me if you require any additional information or advice.

Kind regards

Rachael

Rachael Haylett | Operations Officer – Central Highland
NatureScot | Torlundy | Fort William | PH33 6SW | Redacted **andline:** 0131 3144151
NàdarAlba | Tòrr Lunndaidh | An Gearasdann | PH33 6SW
nature.scot | @nature_scot | Scotland's Nature Agency | Buidheann Nàdair na h-Alba
I work a mixture of home and office working & my normal working hours are 8.30am – 4.30pm.

Advance notice of leave: Monday 11th March – Friday 22nd March (inclusive)

Appendix B – Standard Good Practice Measures

Standard working practices for works in or near water

Works will be undertaken within the marine environment and as such are generally not subject to authorisation under The Water Environment (Controlled Activities) (Scotland) Regulations (CAR) 2011 (as amended). However, BEAR Scotland follow good practice guidance (including but not limited to the below list) as standard for works in or near water to reduce the risk of water pollution as much as possible:

- Engineering in the Water Environment Good Practice Guide. Temporary Construction Methods WAT-SG-29 (SEPA, 2009).
- Engineering in the Water Environment Good Practice Guide. River Crossings WAT-SG-25 (SEPA, 2010).
- SEPA Guidance for Pollution Prevention (GPP) 1: Understanding your environmental responsibilities – good environmental practices (NetRegs, 2021).
- SEPA GPP 5: Works and maintenance in or near water (NetRegs, 2018).
- SEPA GPP 21: Pollution incident response planning (NetRegs 2021).
- SEPA General Binding Rule (GBR) 6: Construction and maintenance of a minor bridge over a river, burn or ditch; (or removal) of a temporary bridge over a river, burn or ditch that has a bed width of less than 5m; or of a surface water drainage system outfall which discharges into a river, burn or ditch (SEPA, 2024).
- SEPA GBR 9: Operating any vehicle, plant or other equipment (machinery) in or near any surface water or wetland for the purpose of undertaking any other GBR activity or for the purpose of maintaining an existing man-made structure in or near any surface water or wetland (SEPA, 2024).
- SEPA GBR 10(a): The discharge of water run-off from a surface water drainage system to the water environment from buildings, roads other than waterbound roads, yards, or any other built development constructed before 1 April 2007, with the exception of motorways and trunk road where any one outfall serves a length of road greater than 1 km and the footprint of the road or its associated infrastructure is enlarged or otherwise altered on or after 1 April 2007 (SEPA, 2024).
- SEPA GBR 10(b): The discharge of water run-off from a surface water drainage system to the water environment from buildings, roads other than waterbound roads, yards, or any other built development constructed on or after 1 April 2007, with the exception of run-off from motorways and trunk roads where any one outfall serves a length of road greater than 1 km (SEPA, 2024).

Specific working practices outlined in the aforementioned guidance that must be adhered to include, but are not limited to:

- All reasonable steps must be taken to prevent silt from entering the waterbody (GPP 5).
- Plant and wheel washing to be carried out in a designated area of hardstanding at least 10m away from any waterbody or surface water drain. Where possible, washing will take place prior to moving vehicles/equipment to different water bodies to reduce the risk of transporting invasive aquatic plants or other species (GPP 5 and GBR 9).
- Refuelling must take place at least 10m away from any surface water. Appropriate containment measures (e.g., drip trays, funnels, plant nappies, bunding) must be in place to reduce the risk of spills (GPP 5, GBR 9).
- Biodegradable hydraulic oils should be used for vehicles and plant where possible (GPP 5).
- Dust, debris and contaminated water will be appropriately contained to reduce the risk of pollution (GPP 5).
- Development of a pollution incidence response plan is required (GPP 21).
- The works must not prevent the free passage of migratory fish (GBR 6).
- All reasonable steps must be taken to ensure that the discharge does not result in pollution of the water environment (GBR 10(b)).

Additional standard working practices

In addition to the standard working practices and measures described above, the following good practice and management measures will be adopted by the successful contractor for each of the above activities:

- Where required (e.g., to comply with protected species legislation), relevant ecological surveys will be carried out prior to works, particularly for proposed in-water works or larger schemes. If surveys identify the requirement for protected species licencing, additional consultation with NS will be carried out and licences will be sought where required.
- The site supervisor will give appropriate toolbox talks prior to work commencing. These talks will highlight any sensitive features, including the designated sites and their qualifying features.
- The contractor will be required to produce a contingency plan for dealing with spills or environmental incidents on site. Spill kits must be present on site, quickly accessible, and all staff trained in their use.
- All spills must be logged and reported. In the event of any spills into the water environment, all works must stop and the incident be reported to the project manager and the BEAR Scotland Environmental Team. SEPA (and where required, the Marine Directorate) must be informed of any such incident as soon as possible, and within 24 hours at the latest. The local DSFB must also be informed of any incidents as soon as possible.
- Any waste generated will be removed from site and either recycled or disposed of in compliance with Waste Management Regulations.

The above measures will ensure that any potential pollutants, including fine sediments and materials required for works in or near water, will not enter the water environment during works. In addition, these measures will reduce the risk of transporting invasive aquatic species such as Himalayan balsam (*Impatiens glandulifera*) which may be found on the shoreline, and carpet sea squirt (*Didemnum vexillum*) within the marine environment. All relevant pollution controls and other good practice measures will be detailed in the SEMP for each scheme and adhered to on site.