NOTICE OF DETERMINATION

A87 CARRICH BRIDGE: FIVE YEAR MARINE LICENCE
ENVIRONMENTAL IMPACT ASSESSMENT
DETERMINATION BY THE SCOTTISH MINISTERS UNDER SECTIONS 20A AND 55A OF THE ROADS (SCOTLAND) ACT 1984

The Scottish Ministers hereby give notice that they have determined that their proposal for maintenance works on the A87 Carrich Bridge is –

(a) not a project which falls within Annex I of Council Directive No. 85/337/EEC on the assessment of the effects of certain public and private projects on the environment as amended by Council Directive No. 97/11/EC and Council Directive No. 2003/35/EC of the European Parliament and Council;

(b) a relevant project within the meaning of Sections 20A(9) and 55A(7) of the Roads (Scotland) Act 1984, and falls within Annex II of the said Directive but that having regard to the selection criteria contained in Annex III of the Directive it should not be made subject to an environmental impact assessment in accordance with the Directive,

and accordingly the project does not require the publication of an Environmental Statement.

[Redacted]

A member of staff of the Scottish Ministers

Transport Scotland
Buchanan House
58 Port Dundas Road
Glasgow
G4 0HF
6th November 2018

A87 Carrich Bridge: Five Year Marine Licence

Record of Determination

	Name	Organisation	Signature	Date
Prepared By	[Redacted]	BEAR Scotland	[Redacted]	16/05/18
Checked By	[Redacted]	Jacobs	[Redacted]	17/05/18
Client:	Transport Scotland			

Distribution		
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Transport Scotland	[Redacted]	1

Transport Scotland
Roads

Document: RECORD OF DETERMINATION

DIRECTIVE 2011/92/EU as amended by DIRECTIVE 2014/52/EU

ROADS (SCOTLAND) ACT 1984 (as amended)

THE ROADS (SCOTLAND) ACT 1984 (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017

Name of Project: A87 Carrich Bridge Five-Year Marine Licence	**Location:** The Carrich Bridge at Kyle Akin carries the A87 trunk road between Kyle of Lochalsh and the Isle of Skye.

Description of Project:

As part of the 4G NW contract with Transport Scotland for the management and maintenance of the Scottish trunk road network, BEAR Scotland (NW Unit) are responsible for maintenance and improvement works on the bridge. Carrich Bridge, together with Skye Carrich Bridge, carries the A87 across Loch Alsh between Kyle of Lochalsh on the mainland and Kyleakin on the Isle of Skye. The Carrich Bridge on the A87 trunk road is shown in Figure 1.

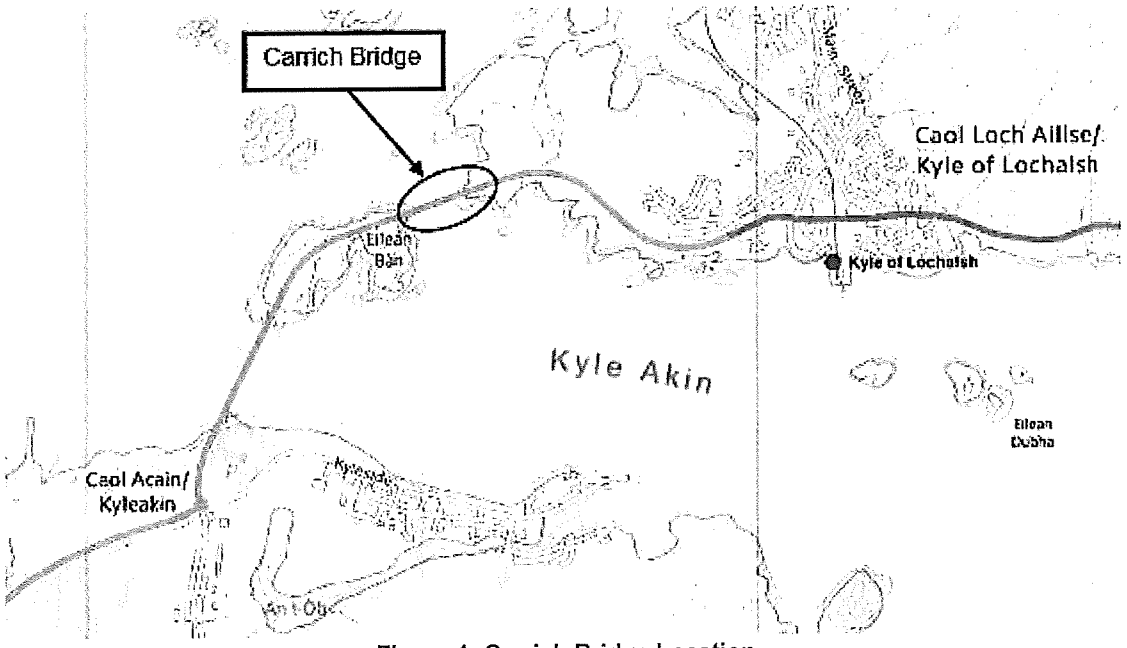

Figure 1: Carrich Bridge Location

The following maintenance works are proposed to be undertaken on the Carrich Bridge over the next five years:

- Drainage cleaning
- Bird guano removal
- Joint renewal
- Carriageway and footpath resurfacing
- Waterproofing
- Parapet renewal
- Concrete repairs
- Minor bridge maintenance
- Use of static and mobile underbridge unit for access, inspections and minor maintenance.

The supporting information for the Carrich Bridge Five-Year Marine Licence Application is provided in Appendix G.

Project Procurement:

The maintenance programme is executed by the operating company as site operations – 'As of Right' scheme.

Description of Local Environment:

The following baseline descriptons have been sequenced to follow the apporpirate Design Manual for Roads and Bridges (DMRB) chapters for environmental assessment and do not reflect a ranking of sensitivity.

Refer to Figure 1 for the location of the proposed works.

AIR AND CLIMATE:

There is no Air Quality Management Area (AQMA) or monitoring site within the vicinity of the works (DEFRA Website, accessed April 2018). Due to the rural locality of the works, air quality is likely to be reasonable with the main influence being vehicle emissions from the traffic using the A87. For further information regarding traffic volumes on the A87, refer to the Population and Human Health section.

There are two potential air quality receptors within proximity to the bridge; namely the Gavin Maxwell Museum (NG 74612 27167) located approximately 330m south west and a wildlife watching hide located approximately 300m west of the bridge. The Gavin Maxwell Museum is owned by the Eilean Bán Trust and also offers self-catering accommodation on the island for up to four people.

The nearest residential property is located within the village of Kyle of Lochalsh which is situated approximately 480m east of Carrich Bridge.

The coastal environments of the Isle of Skye and Kyle of Lochalsh have a mild, wet and windy climate, influenced by the Atlantic Ocean and Gulf Stream to the west.

Refer to the Figure B1 and Table B1 in Appendix B for air and climate receptors.

CULTURAL HERITAGE AND MATERIAL ASSETS:

There are no designated cultural assets within the study area of 300m of the proposed works. The closest designation is Kyleakin Lighthouse (HES ID LB6994) which is a Category B listed building located on the island of Eilean Bán, comprising of a lighthouse and two adjoining former keepers' cottages. These are located approximately 470m and 330m south west, respectively.

There are no Scheduled Monuments or other designated cultural assets located within 300m of the proposed works extents.

Refer to Figure C1 in Appendix C for Historic Environment Scotland (HES) PastMap results.

BIODIVERSITY:

Designated Sites

Carrich Bridge is located wholly within the Lochs Duich, Long and Alsh designated Marine Protected Area (MPA). The MPA was designated in 2014, to protect the flame shell bed and areas of burrowed mud habitats with fireworks anemones. Covering an area of at least of 0.93km^2, the flame shell bed is one of the largest in the world, with an estimated 100 million flame shells, and extends under the Skye Bridge and into the Inner Sound. Flame shell beds stabilise the sea bed creating habitat for other animals such as peacock worms, anemones and sponges. These in turn encourage other predatory animals such as whelks, crabs and fish into the area.

The MPA supports the Lochs Duich, Long and Alsh Special Area of Conservation (SAC) which is located directly south of the bridge (<5m) and is designated for extensive tide-swept reefs, extremely sheltered rocky

reefs, and horse mussel beds (*Modiolus modiolus)*. Horse mussel have been identified within the study area including a bed approximately 500m south east of Carrich bridge.

Skye Bridge is also encompassed by the Inner Hebrides and the Minches candidate SAC (cSAC) for which harbour porpoise (*Phocoena phocoena*) is the only qualifying feature. The cSAC proposals are currently out to consultation, during which time the area has policy protection.

The Kinloch & Kyleakin Hills (Monadh Chaol Acainn is Cheann Loch) Site of Special Scientific Interest (SSSI) and Kinloch & Kyleakin Hills SAC are located on the Isle of Skye approximately 2.1km south of the proposed works. Some of the qualifying features of these designated sites include blanket bog, old upland sessile oak woodland, European dry heaths, Northern Atlantic wet heaths and otter.

Terrestrial and aquatic ecological field surveys were carried out within the study area in 2016 by BEAR Scotland Environment team and in February 2018 by Jacobs UK Ltd. These surveys identified key environmental parameters required to support protected species, as outlined below. The results of these surveys have been used to characterise the environment and are supplemented by the baseline ecological data provided in the Kyleakin Fish Feed Plant Environmental Statement (2017). The natural environment within proximity to the works can be described as predominantly coastal with wild islands and islets.

Terrestrial Habitat

There is no ancient or native woodland found within 1km of the proposed works. The coastal environment generally provides little woodland however there are individual trees and shrubs located within the study area. A small copse of mature trees is located on Eilean Bán within 300m of the proposed works.

Terrestrial habitat on the eastern aspect of the bridge, near Plock of Kyle, is comprised predominantly of dense gorse (*Ulex europaeus*) and rocky shore.

The terrestrial habitat at the western aspect of the bridge, on Eilean Bán, is mostly gorse scrub near to the masonry wall with heathland and rocky shore occupying the rest of the island. Common heather (*Calluna vulgaris*) and cross-leaved heath (*Erica tetralix*) are present here.

There is a lack of vegetation on the existing Carrich Bridge footpaths, therefore there is no habitat present that could support protected species.

Intertidal Habitats

The tidal environment surrounding Carrich Bridge, namely Kyle Akin, is relatively complex due to the large volume of water that is forced in and out of Loch Alsh during each tidal cycle.

Intertidal habitats on the eastern aspect of the bridge are dominated by rock armour under and adjacent to the bridge itself. In the embayment north of the eastern aspect of the bridge the amount of rock armour decreases and is replaced by natural boulder and bedrock. The bedrock and boulders are covered by typical rocky shore communities; fucoids, red seaweeds, eggwrack (*Ascophyllum nodosum*) and a thin band of kelp (*Saccharina latissima*) which extends from the bedrock and boulder onto the coarse sand.

The intertidal habitats on the northern side of the western aspect of the bridge comprises steep, barnacle covered bedrock with sparse fucoids leading down to mixed kelp communities at the infralittoral fringe. The habitat on the southern side of the western aspect of the bridge comprises a mixture of steep barnacle covered bedrock and edimentary shores covered in sparse fucoids. Mixed kelp communities are present along the infralittoral fringe.

At the infralittoral fringe, where algae communties exist, these are considered to be component biotopes of the Scottish Priority Marine Feature (PMF) 'tide-swept algal communities'.

Otter

Otters are known to be present within the study area, based on surveys carried out by BEAR Scotland in 2016 and also during walkovers of the area in March 2018. Otters are a European protected species under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). The coastal environment provides plenty of habitat with potential to harbour and shelter otter including large areas of gorse, rock armour and rocky shores.

During the 2016 surveys otter field signs were recorded within the study area including a possible natal otter holt located on the southern side of Eilean Bán and several otter couches. The 2018 surveys found further evidence of otters (three old spraint and a mammal path) on the eastern aspect of the bridge at the base of the

rock armour and gorse embankment. During the same surveys three otters, an adult and two juveniles, were sighted in the mouth of Loch Alsh, directly underneath the eastern aspect of the bridge.

Birds

The 2018 surveys discovered evidence of breeding bird habitat within the gorse at the eastern and western aspects of Carrich bridge. No Schedule 1 protected birds were identified during the 2018 surveys.

Bats

The coastal environment within the study area generally provides poor bat roosting and foraging potential due to the dominance of open heath habitat. There is a small copse of mature trees with low bat roost potential including an over mature alder with cavities located on Eilean Bán. The buildings on Eilean Bán are considered to have negligible bat roosting potential. No signs of bat presence were recorded.

Marine mammals

The bridge lies within the Inner Hebrides and the Minches cSAC for harbour porpoise, which is the only qualifying feature of this cSAC. Harbour porpoise and bottlenose dolphin are regularly sighted in this area.

Harbour seals and grey seals are both recorded from the area with sightings of harbour seals notably higher. However, during the 2018 field survey a grey seal (*Halichoerus grypus*) was recorded in the open water less than 100m north of the bridge.

Fish

Kyle Akin and Loch Alsh encompass spawning and nursery grounds for a variety of fish and shellfish species, all of which have extensive spawning or nursery grounds across the UK.

Three diadromous fish species are known to be present in the area: Atlantic salmon (*Salmo salar*), anadromous brown trout (sea trout) (*Salmo trutta*) and European eel (*Anguila anguila*). River lamprey (*Lampetra fluviatilis*) may also be present in the wider area. All four species are listed as a Priority Marine Feature (PMF) and the Scottish Biodiversity List (SBL). Atlantic salmon and lamprey are also listed on Annex II of the Habitats Directive, whilst European eel are considered Critically Endangered and are on the International Union for Conservation of Nature (IUCN) Red List.

Invasive Non-Native Species (INNS)

No invasive non-native species were recorded in the survey area during the 2018 surveys.

Appendix D displays protected species and INNS that have been recorded within proximity to the works using the National Biodiversity Network (NBN) Atlas under a CC-BY licence.

Refer to Figure D2 of Appendix D for photographs of otters and ecological habitats.

LANDSCAPE:

The landscape surrounding Carrich Bridge can be considered a picturesque coastal environment, and is characterised by islands, islets, rocky shores, shrub and heath covered hills and mountains. The Inner Sound can be seen to the north and west and Kyle Akin feeding Loch Alsh to the south and east. The mountains of the Isle of Skye dominate the west and south horizon and more gentle hills are seen to the north and east.

There are no landscape designations, including National Scenic Areas (NSA), within 200m of the works. There are no visual receptors, such as residential properties, with a prominant view to the bridge within the study area.

LAND:

The land use within the study area is predominantly wild coastal environment with islands, islets and rocky shores covered in gorse and heath. The villages of Kyle of Lochalsh and Kyleakin are situated approximately 480m east and 900m south respectively, where the land use is predominantly residential and commercial.

NOISE:

The predominant noise and vibration levels at Carrich Bridge are influenced by the existing A87; the only road which provides public, commercial and tourist traffic, access to and from the Isle of Skye. When traffic levels

are low there is no other artificial noise pollution in the immediate vicinity.

Sensitive receptors to noise and vibration include protected species, cultural assets and residential / commercial properties. Refer to the 'Air and Climate', 'Cultural Heritage and Material Assets' and 'Biodiversity' sections for details of receptors.

The bridge provides no natural or artificial noise screening such as fencing or trees.

POPULATION AND HUMAN HEALTH:

The Carrich Bridge carries the A87 west over Kyle Akin and is a critical connection for commercial, domestic and tourist traffic. The Carrich Bridge, and the connected Skye Bridge, provide the only road from mainland Scotland to the Isle of Skye, replacing the requirement for ferry transport.

A traffic count recording Annual Average Daily Flow (AADF) has been calculated by Transport Scotland on the A87 between Kyleakin roundabout and Stoney Road in Kyle of Lochalsh which includes the stretch of road associated with the proposed works. AADF was recorded on the Department for Transport interative map in 2016 as 5155, an increase of 2110 vehicles since 2014. Traffic volumes are significantly higher during the summer months which is high season for tourists in the Highlands.

There are no designated core paths or cycle routes within the study area. The concrete footpaths which run adjacent to the road either side of the bridge and connect Kyle of Lochalsh to Isle of Skye are regularly used by pedestrians. Eilean Bán is accessed by pedestrians directly from the pavement on the western approach to the bridge, where a network of dirt tracks traverses throughout the island.

The Plock Kyle's Community Parkland is an area of land (~100 acres) providing a path network, viewpoint, picnic area and golf course for the local and surrounding community of Kyle of Lochalsh. The car park and a vacant building for this community facility is located approximately 290m east of the proposed works.

There are no bus stops are located within the study area.

WATER:

Kyle Akin is relatively narrow navigable strait directly underneath the Carrich Bridge, connecting the Inner Sound from the west to Loch Alsh in the east. The Inner Sound separates mainland Scotland and the Inner Hebridean islands of Skye, Raasay and Rona, and was classified by Scottish Environmental Protection Agency (SEPA) on the Water Classification Hub in 2016 as having High Overall Status, Overall Ecology, Physico-Chemical Condition and Hydromorphology. Loch Alsh is a sea loch between mainland Scotland and the Isle of Skye and was classified by SEPA in 2016 as having Good Overall Status, Overall Ecology and High Hydromorphology.

The Inner Sound and Loch Alsh are important economic drivers which facilitate a wide range of commercial activities including transport, fishing, industry, leisure and tourism. Both Kyleakin and Kyle of Lochalsh have harbours allowing for a range of commerce including daily wildlife-spotting boat trips. The largest area of industry within proximity to the proposed works is the Kyleakin fish feed plant situated on the coast approximately 1.2km west of the works. The plant is currently under construction and due to open in autumn 2018.

The SEPA Flood Maps show that the Inner Sound foreshore on the mainland and Isle of Skye, and the whole of Loch Alsh, are susceptible to high levels of coastal flooding at the 10% Annual Exceedance Probability (AEP) (10-year) event.

Road drainage at the bridge consists of kerb and gullies the length of the bridge, filter drains on the eastern approach and 'over the edge' direct runoff on the western approach.

SOILS AND GEOLOGY:

The bedrock geology underlying the proposed works at Eilean Bán and Plock of Kyle comprises sandstone of the Applecross Formation. Superficial deposits are found on the eastern aspect of the bridge and comprise of marine beach deposits such as gravel, sand and silt. The soil cover at either side of the bridge, on Eilean Bán and Plock of Kyle, consist predominantly of peaty gleys derived from Torridonian sandstone drifts.

There are no designated geological sites within the study area. The closest geological sites are the Kinloch & Kyleakin Hills (Monadh Chaol Acainn is Cheann Loch) SSSI and Kinloch & Kyleakin Hills SAC located approximately 2.1km south and are designated in part because of the Torridonian sandstone deposits, blanket bogs, and dry and wet heaths.

The Ob Lusa to Ardnish Coast Geological Conservation Review (GCR) is a Lower Jurassic site with coral limestone beds located on the Isle of Skye approximately 5km west of the proposed works and is also designated as an SSSI.

WASTE, MATERIALS AND USE OF NATURAL RESOURCES:

Materials and resources used for the cyclic maintenance will comprise concrete, two new bridge joints, new parapet, road and footway surfacing. Waste materials will comprise of excavated road planings, broken out footways, waterproofing materials, gully and drainage debris, waste water from hydro-demolition (which will contain broken concrete), bird guano, old parapets and old bridge joints.

Description of the main environmental impacts of the project and proposed mitigation:

As a result of a desktop study and site visit, issues requiring consideration have been identified and potential effects, their magnitude and overall significance (based on the sensitivity of receptor) have been considered.

Effects have been split into construction and operational effects and the magnitude of effect is based on designing mitigation measures into the programme. Where reference is made to 'mitigation measures', this will also include embedding good practice and environmental management. Mitigation measures are noted in Table 1: Environmental Impacts and Mitigation Measures Summary.

In some cases, compliance with environmental consents, authorisations and licences will also form part of the measures in place to minimise environmental impacts. Table 1 will also include reference to the conditions of various licences, where relevant.

Unless otherwise stated, the study area considered for the assessment of potential impacts extends 200m in each direction from the centre of the road.

AIR AND CLIMATE:

During the construction phase, there is potential for a short-term minor decrease in air quality during the construction phase due to activities associated with the works including:

- Emissions from construction vehicles, plant and machinery;
- Resuspension of dust by haulage vehicles, other construction vehicles and from plant.

With the following good practices and management measures in place impacts on air quality are not anticipated to be significant.

Good practice:

- Plant, machinery and vehicles associated with the works will have engines switched off when not in use in order to minimise emissions;
- Machinery and vehicles will have been serviced regularly;
- A traffic management plan will be in place to control the length of time that vehicles are idle;
- Large material stockpiles will not be required and drop heights will be minimised to avoid excessive dust generation;
- In prolonged periods of dry conditions, work areas will be dampened down where necessary. The contractor will implement this measure with care to avoid mobilisation of dust and debris as runoff and polluting the local environment;
- Any skips holding waste on site will be covered to prevent dust movement;
- Any loose materials will be covered during transportation to and/or from site.

The construction activities, for example, emissions from construction vehicles and plant will result in release of greenhouse gases for a short-term period. However, due to the short-term nature of the work this is not

considered to be significant.

The proposed works are not expected to affect air quality during the operational stage, since it will not result in change in traffic levels or dynamics.

CULTURAL HERITAGE AND MATERIAL ASSETS:

Due to the nature and location of the works there are no significant impacts anticipated on cultural heritage.

BIODIVERSITY:

Aquatic

As outlined in the 'Biodiversity' baseline section, the maintenance works are located within the Loch Duich, Long and Alsh MPA, the Inner Hebrides and the Minches cSAC and are adjacent to the Lochs Duich, Long and Alsh SAC. Following consultation with SNH in April 2018, they advised that with implementation of good practice and management measures, the proposed maintenance activities would not lead to a significant effect on any Natura 2000 site, MPA or SSSI, and thus their qualifying features. In order to prevent materials entering the marine environment, from any of the proposed activities on or under the bridge, good practice measures will include:

- Implementation of debris netting, protective shelters, containment; and sumps;
- Carrying out waterproofing from within protective shelters;
- Carrying out waterproofing during periods of good weather;
- Remove debris from gullies and drains using vaccum truck;
- Double bag guano;
- Contain the underbidge working platform with either debris netting or thickened sheets (if hydrodemolition);
- Layering floor of working platform to prevent any material or water going through (if hydrodemolition);
- Remove all waste concrete from site;
- Adherence to relevant PPGs and GPPs including GPP5 (works and maintenance in or near water);
- Edge protection and toerails to prevent any materials dropping into water.

If required, a CAR licence will be obtained for discharges into the marine environment. Adherence to the good practice and management measures, as listed above and in the 'Water' section later on in this document, will result in no significant effects on the benthic receptors beneath and adjacent to the bridge, including PMFs.

There is limited pathway to effect for fish and marine mammals from the proposed works at Carrich Bridge and these marine features are not considered further.

Terrestrial

Without mitigation, there is the potential to disturb disturb receptors, including species and habitats, as listed in the 'Biodiversity' baseline section as a result of maintenance works. Activities that have the potential to cause disturbance can include the use of machinery, vehicles and plant, floodlighting, removal of vegetation and increased human activity. The good practice and management measures mentioned in the 'Air and Climate' and 'Noise' sections will ensure disturbance is adequately mitigated so that no likely significant impacts are expected. Mitigation mentioned in the 'Water' and 'Waste Materials and Use of Natural Resources' sections will adequately mitigate pollution of ecological habitat, therefore no likely significant impacts are expected.

Otter

Otters are known to be present within the study area and field signs have been recorded in the 2016 and 2018 surveys including a holt and several couches. The maintenance activities have the potential to disrupt otters in the study area including a disruption to normal foraging and commuting routes, and resting sites. Therefore, an otter disturbance licence is required.

An organisational otter licence (Number 118944 valid from 10 April 2018) obtained by BEAR Scotland NW Unit and Species Protection Plan will be followed during the main works until 31 December 2019 to reduce

disturbance to otter; these are included in Appendix F. The contractor must obtain a copy of an updated or extended organisational licence, or obtain a project-specific one if the organisational one is not updated, for any works affecting otters after 31 December 2019. Conditions outlined in the licence will be followed by way of mitigation.

Further otter surveys, consisting of remote monitoring using infra-red trail cameras and site visits, will be required to monitor use of the known otter shelter on Eilean Bán and the location/use of other possible shelter sites.

The following mitigation is also proposed:

- Setting up of an exclusion zone, distance to be determined following monitoring results.
- Site supervisor will brief all persons on site as part of the induction process to ensure everyone is aware of the presence of otter, the mitigation measures and their legal obligations;
- The Otter Toolbox talk will be included in the Site Environmental Management Plan (SEMP) and delivered to site personnel prior to commencement of works;
- A 'soft start' to works shall be implemented whereby machinery shall be switched on and before being used, machinery will be checked for the presence of otters;
- Any excavations created will be covered over at the end of each shift and following completion of the works to avoid entrapment of otters; failing that, a ramp shall be provided within the excavations;
- Any entrances to pipes/drains that are in the process of being constructed will be suitably protected to prevent otter access; and
- Any lighting required to carry out the works to be directed away from the Eilean Bán and Kyle Akin, as far as reasonably practicable.

Birds

The proposed works are confined to the bridge, however there is potential disturbance to any nesting birds during the construction phase if works are conducted during the birds breeding season (March to August, inclusive). If works are required during this timeframe, pre-maintenance breeding bird checks may be required. The requirement of these surveys will be dependent on the maintenance work in question and should be taken under advisement of the BEAR Environmental Team.

Onn site, staff will remain vigilant for breeding birds and nests in the gorse immediately adjacent to the proposed works (up to 10m from the carriageway). Should evidence of nests or breeding birds be seen, works will stop and the site supervisor will be informed who will then seek advice from the BEAR Environment Team.

Bats

The bridge and surrounding area is considered to offer low to negligible potential for roosting bats, therefore any impact on bats is not anticipated to be significant.

LANDSCAPE:

During the construction phase there will be a temporary visual impact as a result of works on the bridge, provision of fencing, traffic management, situation of vehicles and machinery, and use of the site compound. Due to the nature of the works and location of the site there is minimal vegetation removal expected as a result of the works. With the following good practice in place impacts on landscape are not anticipated to be significant.

Good practice:

- Land required for building the compound area will be confined to the minimum required area. It it is likely that the compound will be located on the bridge deck as a self-contained welfare unit;
- The site will be kept clean and tidy during and following maintenance works;
- All waste will be removed from site, with a preference for recycling, otherwise disposal at a licensed waste facility in compliance with Waste Management Regulations; and
- Vehicles and large machinery/equipment will be kept as clean as possible.

The proposed work is not expected to affect the local landscape during the operational stage, since it will not

result in a major change in loss of vegetation, change in land use, increase in traffic flows, or change in structure / design.

LAND:

It is anticipated that the site compound will be located on the bridge deck. It is anticipated that no land take will occur and no change in land use is expected. No residential or commercial properties, community facilities or agricultural land will be affected by the works and so the impact on land use is not anticipated to be significant.

NOISE:

There is a potential for disruption of sensitive receptors during the construction phase to the protected species mentioned in the 'Biodiversity' baseline section. Even though the Gavin Maxwell Museum and wildlife hide on Eilean Bán are situated outwith the study area it is deemed good practice to consider them within the assessment as they are also situated within close proximity to the proposed works at Skye Bridge. The construction phase noise may be derived from the following activities:

- construction plant including vacuum trucks, concrete mixers and underbridge access units etc.;
- haulage of materials and movement of vehicles;
- road planing;
- spraying of waterproof materials; and
- demolition of expansion joints.

Currently, the works are programmed to take place entirely during daytime hours to reduce potential impact from noise and vibration. If this changes, the The Highland Council Environmental Health Officer will be consulted and this will be included as an addendum to the Record of Determination.

With the implementation of the following good practice and management measures, noise and vibration impacts are not anticipated to be significant.

Good practice:

- Eilean Bán Trust, owner of Gavin Maxwell Museum and the wildlife hide, will be informed of the works at least 14 days in advance of the works;
- Consultation will be carried out ahead of the works with residential and commercial properties to inform them of the proposals. A 24-hour contact number will be provided;
- Temporary staff toilets/site compound will be located as far as is practicable from sensitive receptors;
- The Being a Good Neighbour toolbox talk will be included in the SEMP and delivered to site personnel prior to works;
- The Best Practicable Means, as defined in Section 72 of the Control of Pollution Act 1974, will be employed at all times to reduce noise to a minimum;
- All plant will be operated in a mode that minimises noise emissions and will have been maintained regularly to comply with relevant national and international legislation;
- Where fitted and Health and Safety requirements allow, white noise reversing alarms will be used on plant to reduce noise impact;
- Night works may be required for the works but this will depend on design requirements and the contractor's programme and method of works. If required, the Highland Council Environmental Health Officer will be consulted prior to the works and evening and night-time working will be completed as quickly and efficiently as practicable;
- Where practicable, the successful contractor will try and ensure the most disruptive activities (e.g. milling, planning) are carried out within daylight hours;
- All site personnel will be fully briefed in advance of works regarding the need to minimise noise during any night-time period and of the site specific sensitivities; and
- Mitigation measures described in the 'Air and Climate' section will be adhered to.

The proposed works are not expected to affect noise and vibration during the operational phase since it will not result in a change in traffic levels or dynamics.

POPULATION AND HUMAN HEALTH:

Traffic management will be implemented to alleviate disruption to vehicle travellers throughout the construction

periods. Traffic management will be required periodically and the duration of which will depend on the works required at the time. Lane closures and traffic lights will be set out in accordance with the Traffic Signs Manual Chapter 8 and Safety at Street Works and Road Works: A Code of Practice will likely be required for most of the works. Speed limits will be reduced from 60mph to 30mph throughout the works area, which is expected to result in minor delays and a slight increase in travel times along the A87. Emergency vehicles will have access through the works at all times.

With the implementation of the following good practice and management measures, impacts on vehicle travellers are not anticipated to be significant.

Good practice:

- A Traffic Management Plan will be developed to minimise disruption to vehicle traveller;
- Traffic will be controlled by temporary traffic lights, allowing vehicles to continue to use one lane of Carrich Bridge during the construction phase; and
- Motorists will be informed of works and likely delays via the Traffic Scotland website, media releases and by variable message and fixed signs.

There is a potential for disruption of NMUs during the construction phase. Although there are no recognised cycle routes, both pedestrians and cyclists are considered likely to be impacted during the period of maintenance works and the whilst traffic management measures remain in place. Equestrians are unlikely to use this section of the A87 and Carrich Bridge due to the high speed and volume of traffic.

With the implementation of the following good practice, impacts on NMUs are not anticipated to be significant.

Good practice proposed:

- The needs of NMU traffic will be considered within the design of the Traffic Management Plan; and
- NMU access between mainland Scotland and the Isle of Skye, via the Carrich Bridge, will be maintained during the maintenance works.

The proposed works will not affect the surrounding local population or human health during the operational phase since works will not result in a change in access. This includes both non-vehicular uses (NMUs) and vehicle users.

WATER:

There is potential for impacts on water quality as a result of the refurbishment works for potential discharge of silt, fuels, soils and waterproofing chemicals into the Kyle Akin, and subsequently, the Inner Sound and Loch Alsh. Hydro-demolition works may be required and would result in the production of large amounts of solids in solution which is likely to be mildly alkaline.

Marine Scotland have been consulted regarding the requirement for licensing and a licence will be secured before any works can take place. All conditions set out within the licence will be strictly adhered to.

Any waste water generated from hydro-demolition must be contained and either disposed of under a licence or treated before being discharged into Kyle Akin. Before any water can be discharged the water parameters must meet a pH requirement of between 4 – 10 and also a Suspended Solids limit of 100mg/l. Depending on the volume of water discharged daily, a Registration (volume <10m^3/day) or Simple Licence (volume >10m^3/day - <100m^3/day) would be required under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR) must be obtained from SEPA.

With the implementation of the following good practice, management measures and mitigation, impacts on the water environment are not anticipated to be significant.

Mitigation proposed:

- A marine licence will be secured and all conditions will be adhered to;
- If required, an appropriate SEPA CAR licence will be obtained for all discharges into Kyle Akin and the conditions of the licence will be complied with throughout the course of the works;
- Waste water generated from hydro-demolition will be contained and treated before disposal or discharge into Kyle Akin. The water parameters must meet a pH requirement of between 4 – 10 and also a Suspended Solids limit of 100mg/l;
- Relevant Construction Industry Research and Information Association (CIRIA) guidance and SEPA's Pollution Prevention Guidelines (PPGs) and Guidance for Pollution Prevention (PPGs) will be followed including PPG 1, 6, 7, 8, 13, 18, 21 and 22. Particular attention will be paid to GPP 5: Works and

maintenance in or near water, PPG 6: Working at construction and demolition sites and PPG 21: Pollution incident response planning;

- In the event of a pollution incident occurring, SEPA and BEAR Environment Team will be notified within 24 hours of the event;
- Hydro-demolition works will be encapsulated in a double-skinned membrane to filter hydro-demolition water. Solid waste captured will be bagged and removed from site to a licenced landfill site by licenced waste carriers;
- Containment will be in place and a sump pit used to prevent untreated water being released into the marine environment;
- Fresh concrete will be poured in such a manner that no concrete is lost or can enter the marine environment;
- Removing material through milling will be carried out during suitable periods of weather to ensure that waste material is not blown or washed into the marine environment;
- Debris netting or thickened sheets will be installed around milling working areas, including around working platforms under the bridge, and a process will be in place to retrieve any dropped items;
- Waterproofing will be carried out within protective shelters and during periods of good weather, ensuring that all overspray is enclosed and does not enter marine environment;
- Edge protection will be installed around the bridge to ensure materials cannot be knocked over the edge into Kyle Akin;
- Sediment traps and sedimentation mats will be used where required during construction to prevent spillages and chemicals entering the water environment;
- All re-fuelling will take place at a designated refuelling site, away from Kyle Akin and any road drains;
- Oils, fuels and chemicals will be stored in bunded areas off the bridge at the best practice requirement of 110% of containment capacity of the volume stored. Drip trays will be used and maintained when dispensing;
- Spill trays will be fitted to all stationary construction plant;
- Waste will be stored in designated areas, isolated from surface drains and any other area that discharges into the environment. All skips will be covered or enclosed;
- Gully cleaning vehicles are to be used which will vacuum water and debris from the gullies, and vacuum trucks will be emptied at licenced facilities;
- Bird guano will be double bagged to prevent spillage and will be taken to a licenced facility;
- All materials will be stored on appropriately bunded surfaces to prevent run-off of any materials into Kyle Akin;
- Prevention or containing of drainage and surface water run-off from site compound and storage areas during clearance, construction and post-construction to ensure there is no water pollution; and
- A contingency plan will be put in place to minimise risk of pollution incidents or accidental spillages and all necessary containment equipment will be available on site and staff trained in their use.

The proposed works are not expected to affect water quality during the operational phase since it will not result in a change in road drainage patterns or traffic levels.

SOILS AND GEOLOGY:

No sensitive receptors have been identified within the study area in relation to geology and soils. The works to the bridge will have no impact on geological resources. There is no connectivity between Ob Lusa to Ardnish Coast GCR / SSSI and the proposed works.

Mitigation detailed within the 'Water' section will minimise the risk of potential contamination of soils and geology through spillages.

WASTE, MATERIALS AND USE OF NATURAL RESOURCES:

All waste will be removed from site and disposed of safely and legally, preferably by recycling or re-use. Planings will be disposed of under a paragraph 13(a) exemption (as described in Schedule 3 of the Waste Management Licensing Regulations 1994). All temporary traffic management equipment, including signs and cones, will be removed from site on completion of works. If required, waste water generated from hydro-

demolition must be disposed of legally under the conditions of an agreed CAR licence.

With the implementation of the following good practice, impacts relating to materials and waste are not anticipated to be significant.

Good practice proposed:

- The sub-contractor will adhere to waste management legislation and ensure they comply with their Duty of Care;
- The sub-contractor will provide all information on quantities of waste (including recycled and re-use) and transportation of materials required by the Operating Company;
- Re-use and recycling of waste is encouraged and the sub-contractor will be required to fully outline their plans and provide documentary evidence for waste arising from the works (e.g. waste carriers licence transfer notes and waste exemption certificates) as well as filling in the sub-contractor's waste return spreadsheet; and
- Mitigation measures described in the 'Water' section will be adhered to.

RISK OF MAJOR ACCIDENTS OR DISASTERS:

During the construction phase, with the implementation of appropriate signage and traffic management road users and NMUs will be made aware of lane and footpath closures and the presence of traffic lights.. No significant impact on road safety is expected during the construction phase.

The works will not result in a change to the alignment or width of the road. The maintenance works are necessary to ensure the longevity of the bridge and operational reliability. The proposed works are not anticipated to result in a greater risk of major accidents during operation as there is will be no change in traffic levels or alignment.

CUMULATIVE EFFECTS:

With the good practice, management and appropriate mitigation measures in place, as described in each section, potential impacts are not considered significant. Therefore, there is no potential for significant cumulative effects.

Skye Bridge is adjacent and linked to Carrich Bridge via the A87, approximately 300m south-west of the proposed works and connects Eilean Ban to the Isle of Skye. The nature of the maintenance works at Skye Bridge are comparable to those at Carrich Bridge and much of the study area overlaps.

At this time the only other relevant developments proposed in the general area are maintenance works at Skye Bridge and Dornie Bridge. However, no significant adverse effects were predicted at either Skye or Dornie bridge as outlined in the respective RODs for each bridge, and hence there would be no in-combination effects with Carrich Bridge.
Appropriate programme planning will be given including scheduling the works as to avoid simultaneous traffic management at Skye and Carrich where practicable.

Extent of EIA work undertaken and details of consultation:

The following environmental parameters have been considered within this Record of Determination:

- Air and Climate
- Cultural Heritage and Material Assets
- Biodiversity
- Landscape
- Land
- Noise
- Population and Human Health
- Water
- Soils and Geology
- Waste, Materials and Use of Natural Resources

- Risk of Major Accidents or Disasters
- Cumulative Effects

Consultation with statutory consultees was deemed necessary because there are potential nature conservation and water environment parameters which could be affected during the works. Appendix E provides a list of consultees and a synopsis of their comments.

Statement of case in support of a Determination that a formal EIA and EIA Report is not required:

This is a relevant project falling within Annex II that:

- **Is located wholly within and in close proximity to sensitive areas. The proposed works are located within the Lochs Duich, Long and Alsh MPA and Inner Hebrides and the Minches cSAC, and adjacent to Lochs Duich, Long and Alsh SAC.**

The project has been subject to screening using the Annex III criteria to determine whether a formal Environmental Impact Assessment is required under the Roads (Scotland) Act 1984 as amended. Screening using Annex III criteria, reference to consultations undertaken and review of available information has not identified the need for a full EIA.

The project will not have significant effects on the environment by virtue of factors such as:

Characteristics of the scheme:

- Waterproofing / resurfacing renewal, drainage clearing, bird guano removal, expansion joint renewal, parapet renewal and minor concrete repairs and maintenance.
- All works will be confined to Carrich Bridge, with no change to the structure's footprint.
- Works will improve the integrity of the existing structure.

Location of the scheme:

- The works will take place entirely within the footprint of Carrich Bridge and iti s anticipated that there will be no requirement for further land take.
- Adherence to relevant good practice and management measures (i.e. SEMP), appropriate mitigation, and the conditions of the marine licence and CAR registration or simple licence, will occur throughout the duration of the works. This will ensure protection of the environmental features and designated conservation sites.

Characteristics of potential impacts of the scheme:

- Potential impacts during construction on the environmental disciplines discussed will be minimised through robust mitigation measures, good practice management measures and compliance with all required licences i.e. Marine Licence.
- Operation of the bridge will not differ from existing baseline, therefore there would be no impacts on environmental receptors during the operation.
- No significant adverse impacts are predicted.

File references of supporting documentation: N/A

I have determined, following discussions with the Project Manager, that an EIA Report is not required for this project.

[Redacted]

SIGNATURE: ... . (Transport Scotland Environmental Advisor)

[Redacted]

PRINT NAME:

DATE: ...23 October 2018

Authorisation to publish Notice of Determination

Transport Scotland
Roads

Document: RECORD OF DETERMINATION
[Redacted]

TRANSPORT SCOTLAND

SIGNATURE: . [Redacted] ..... (Director, Roads)

PRINT NAME:..

DATE: 2.11.2018