A87 210 Clachan Duich

Record of Determination

	Name	Organisation	Signature	Date
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Client:	Transport Scotland			

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Document:

EC DIRECTIVE 97/11 (as amended)
ROADS (SCOTLAND) ACT 1984 (as amended) (Environmental Impact Assessment) Regulations 2017

RECORD OF DETERMINATION

Name of Project:	**Location:**
A87 210 Clachan Duich.	A87 at east end of Loch Duich. (E194647, N820847), north of Inversheil.

Description of Project:

The proposal include the removal of existing surfacing, kerbing and footpath concrete to allow for concrete repairs to deck surface and re-waterproofing of bridge deck. It is also intended to replace the existing asphaltic plug expansion joints across the full bridge width

The works are planned to commence 29th October 2018 (this may change with the marine licence consideration period), taking 14 weeks to complete with proposed construction hours being 07:00 to 19:00 hours.

The works are required to maintain the structural integrity of the bridge structure. For the scheme location and extents, refer to Appendix A.

Project Procurement:

The scheme is executed by the operating company as site operations – 'As-of-Right' scheme of value less than £350k.

Description of Local Environment:
The following baseline descriptions have been sequenced to follow the appropriate Design Manual for Roads and Bridges (DMRB) chapters for environmental assessment and do not reflect a ranking of sensitivity.

AIR AND CLIMATE:
There are no air quality monitoring stations within close proximity of the scheme. Existing air quality is primarily influenced by the A87 trunk road. The scheme location is primarily rural in nature, therefore air quality is likely to be high.

The village of Allt a' Chruinn lies approximately 500m south of the works, however, there are no properties within 200 m of the scheme.

The climate in and around the Kyle of Lochalsh area is classified as warm and temperate, with significant rainfall even in the driest months. The average annual temperature for the area is 8.1 °C.

CULTURAL HERITAGE AND MATERIAL ASSETS:
A search of the Historic Environment Scotland (HES) PastMap websit [Redacted] indicates that there are a few local/regional sites of cultural heritage interest within 300m of the scheme.

The "Clachan Duich Bridge" itself which is a Canmore/RCAHMS record. The "Kintail Old Parish Church, Graveyard and Macrae War Memorial" Category B Listed Building is located approximately 200m north of the scheme. "St Dubthach's Church and Burial Ground" is a Scheduled Monument located approximately 200m north of the scheme.

BIODIVERSITY:

Lochs Duich, Long and Alsh Reefs Special Areas of Conservation (SAC) is located approximately 820m west of the scheme. This SAC is designated for reefs. Lochs Duich, Long and Alsh Marine Protected Area (MPA) lies approximately 90m west of the scheme. The MPA is designated for burrowed mud and flame shell beds.

A previous site survey undertaken on 26th March 2015 identified evidence of otters (Lutra lutra) in the area in the form of five couches within the rock armour north and south of the bridge abutments.

A further site survey undertaken on 13th March 2016 identified evidence of otters (*Lutra lutra*) in the form of six active otter resting places were identified, two of which lie within 30m of the works. The loch shoreline is considered to be of excellent quality for foraging and resting otters.

During a survey on 9th August 2018, two active otter resting places were found within 30m of the proposed works. The other resting places previously identified were not surveyed due to adverse weather conditions causing the rock armour to be slippery and unsafe to access. The loch shoreline still provides highly suitable conditions for foraging and resting otters.

Several species of conservation interest are recorded on the National Biodiversity Network (NBN) Atlas as being with 5 km of the proposed works (refer to Table 2 in Appendix D).

LANDSCAPE:

The scheme lies within the Kintail National Scenic Area (NSA).

The immediate landscape is characterised by hills to the north and south, church ruins and a memorial to the north and open views of the river/loch to the east and west.

LAND:

Land use in the surrounding area comprises small pockets of residential areas, coniferous forestry plantation, crofting and recreation including boating and hillwalking.

NOISE:

There is no information on the Scottish Noise Mapping website for the scheme location. Existing noise levels are primarily influenced by the A87 trunk road. There are no sensitive receptors within 200m of the scheme.

POPULATION AND HUMAN HEALTH:

The A87 trunk road is single carriageway at this location and the national speed limit applies. This road carries commercial and public traffic and is a popular tourist route which connects mainland Scotland to the Isle of Skye. Trafiic management will entail lane closures with temporary traffic lights. There will be no requirement for diversions.

This section of the A87 trunk road does not form part of any designated cycling or walking route, however it is recognised that cyclists will use the road at this location. Pedestrians are also likely to occasionally use the road to cross the causeway. Equestrians are unlikely to frequently use the road as it is relatively narrow for a trunk road and can be busy especially in summer. However, equestrians may occasionally use the road to access spur-roads off the trunk road.

WATER:

The works lie within the Wester Ross, Assynt and Kintail groundwater area, classified by SEPA as being in good condition in 2016. The River Croe flows beneath the A87 at the scheme location and discharges into Loch Duich. SEPA classified the River Croe as being at in good condition in 2016 and the coastal water body, Loch Duich, was also classified as being in good condition in 2016.

As the works are taking place within the marine environment, a Marine Scotland marine licence application is currently being applied for.

SOILS AND GEOLOGY:

There are no statutorily designated geological sites within or adjacent to the scheme extents. No evidence of invasive non-native plant species was identified within or in close proximity to the scheme extents.

Geological information has been obtained from the British Geological Survey (BGS) website [Redacted] Bedrock geology within the scheme is Morar Group – psammite. l, sand and silt marine beach deposits formed up to three million years ago in the Quaternary Period.

WASTE, MATERIALS AND USE OF NATURAL RESOURCES:
Waste arising will predominately comprise of concrete and spalled asphalt. Materials will comprise of concrete, asphalt and waterproofing materials.

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 then been considered. Effects have been split into construction and operational effects and the magnitude of effect is based on consideration of mitigation measures noted in Table 1: Environmental Impacts and Proposed Mitigation Summary.

'Disruption due to construction' and impacts on 'policies and plans' are covered within each environmental topic heading, where applicable. 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:
Exhaust emissions from construction site plant, machinery and vehicles are likely to result in a temporary, localised, but reversible, decrease in air quality.

With the following good practice measures in place, impacts on air quality are not anticipated to be significant during the construction phase:

- Plant, machinery and vehicles associated with the scheme should switch off engines when not in use in order to minimise emissions;
- Machinery and vehicles will have been serviced regularly and switched off when not in use to reduce and control emissions;
- Any loose materials will be covered during transportation to and/or from the site.

During operation, there will be no significant change in traffic flows or dynamics as a result of the scheme and consequently no impact on air quality is anticipated during operation.

CULTURAL HERITAGE AND MATERIAL ASSETS:
All sites of cultural heritage interest within 300 m of the scheme lie out-with the footprint of the scheme, aside from the "Clachan Duich Bridge" itself which is a Canmore/RCAHMS record. However, the refurbishment of the bridge will improve the aesthetics of the bridge and maintain the integrity of the structure.

With the following good practice measures in place, impacts on cultural heritage are not anticipated to be significant.

- If any unexpected archaeological finds are uncovered, works will stop in the immediate vicinity and advice sought from the BEAR Scotland Environment Team.

There will be a slight positive impact during the operational phase, as these works are designed to maintain the bridge integrity, thus also maintaining its cultural heritage interest.

BIODIVERSITY:
Through implementing robust pollution prevention, embedding good practice and environmental management measures into the construction design, no 'likely significant effect' is predicted on the qualifying interests of the

Lochs Duich, Long and Alsh Reefs SAC or the Lochs Duich, Long and Alsh MPA. Consultation with Alex Turner at SNH confirmed the conclusion that providing the mitigation measures as detailed in the SEMP are implemented throughout, SNH agrees with the assessment of no ' likely significant effect' on the reefs within Lochs Duich, Long and Alsh SAC. SNH also agreed that the works could be capable of affecting the burrowed mud and flame shell bed protected features of the Lochs Duich, Long and Alsh MPA, however noted that providing the best practice measures are implemented throughout the works, the impact of the works on these protected features would be insignificant.

During construction there will be a risk of pollution to the water environment via the release of fuel, oil or waste water generated from hydrodemolition. In order to reduce this risk, appropriate pollution prevention measures will be put in place as detailed in the 'Road Drainage and Water Environment' section.

As evidence of otter activity was identified during the site survey and two resting places were identified within 30 m of the works, the BEAR Scotland NW Organisational Otter Licence will be implemented during the course of the works. All conditions of the otter licence will be adhered to on site.

These impacts are not anticipated to be significant, provided the following good practice and environmental management measures are embedded within the construction design:

- All conditions in the Marine Licence will be complied with throughout the course of the works;
- In the first instance, the contractor will remove poor concrete by mechanical means, but where the depth or area of the concrete to be removed is excessive, or access is hampered by the reinforcement high pressure water jetting will be carried out;
- The water to be used will be clean and fresh potable supply, located in a bowser/tank on site. No antifreeze agents or other chemicals will be added to this;
- The area of concrete to be removed using high pressure water jetting will be fully encapsulated, using "Envirowrap" or similar, to prevent contaminants from entering the water environment;
- The water used in the jetting, when settled, will be fully captured using a gully tanker/sweeper and taken off-site for appropriate disposal;
- For the duration of the works an impermeable barrier such as Combisafe will be attached to the existing parapet barriers, providing additional mitigation against contaminated water or other materials from entering the water environment;
- Mitigation detailed in the 'Road Drainage and the Water Environment' section must be adhered to;
- All conditions of BEAR NW Organisational Otter Licence (SNH number 118944) will be complied with during the works;
- A copy of the licence will be kept on site for inspection at any time;
- Otter toolbox talk will be given to site personnel prior to commencement of the works;
- Toolbox talks will be given by the site supervisor and these will highlight the sensitivity of the marine habitats near the bridge and the importance of implementing the agreed good practice measures to avoid pollution;
- Works will take place during daytime construction hours with no requirement for night-time works;
- Site supervisor will brief all persons on site as part of the induction process to ensure that everyone is aware of the presence of otter, the mitigation measures, their legal obligations and any licensing conditions imposed on them;
- Site personnel will be required to be vigilant for the presence of otters on site and should they be seen, work will be immediately stopped in the vicinity and the supervisor informed who will then seek specialist advice;
- Where machinery is left on site overnight, it will be checked at the start of each shift for the presence of resting otters before being used;
- Relevant SEPA Pollution Prevention Guidelines (PPGs) and Guidance for Pollution Prevention (GPPs) especially GPP 5: "Works and maintenance in or near water" must be adhered to throughout the works;
- Emergency spill kits will be provided on site and a contingency plan will be in place to deal with environmental incidents;
- All waste will be removed from site either for re-use or disposal in accordance with waste management regulations.

During operation, no significant impacts are anticipated on biodiversity as there are no changes to the bridge or

drainage design.

LANDSCAPE:
During the construction period, there will be a short term visual impact on the landscape as a result of the presence of construction plant, vehicles and traffic management. This is not expected to be significant, due to the temporary and reversible nature of these impacts.

Leave clean and tidy following completion of construction.

SNH have been informed of the works within the Kintail NSA, but they are of a category that do not meet their criteria for consultation.The proposed works are within the existing road carriageway, temporary in nature and unlikely to affect the special qualities of the NSA[1].

During operation, the refurbished bridge will have a minor positive impact within the landscape.

LAND:
The scheme will be confined to within the trunk road boundary and, therefore, will not result in a change in land use.

NOISE:
There will be increased noise levels as a result of construction activities from plant and vehicles and an increased human presence. Impacts will be reduced as works are planned to be carried out during day time construction hours. These impacts are temporary and reversible.

There will be no change in noise levels during operation, as there will be no change in the bridge's alignment or traffic dynamics.

POPULATION AND HUMAN HEALTH:
There will be some disruption to the local population during construction as traffic management measures will be in place. The works are short-term no significant impacts on vehicle travellers are predicted. The traffic management will also be required to take account of non-motorised travellers such as cyclists who will take longer to travel through traffic management. One footpath will remain open and accessible to pedestrians throughout the works and they will be safely directed to use the appropriate one.

Priority access will be given to emergency vehicles at all times.

During operation, there will be no adverse impacts on population and human health as there will be no change in the bridge design or traffic dynamics.

WATER:
During construction there will be a risk of pollution to the water environment via the release of fuel, oil or waste water generated from hydrodemolition. The following good practice and environmental management measures will be embedded into the construction design and adhered to throughout the works:

- All conditions of the Marine Licence will be adhered to during the maintenance activities;
- In the first instance, the contractor will remove poor concrete by mechanical means, but where the depth or area of the concrete to be removed is excessive, or access is hampered by the reinforcement high pressure water jetting will be carried out;
- The water to be used will be clean and fresh potable supply, located in a bowser/tank on site. No antifreeze agents or other chemicals will be added to this;
- The area of concrete to be removed using high pressure water jetting will be fully encapsulated, using "Envirowrap" or similar, to prevent contaminants from entering the water environment;
- The water used in the jetting, when settled, will be fully captured using a gully tanker/sweeper and taken off-site for appropriate disposal;

[Redacted]

- For the duration of the works an impermeable barrier such as Combisafe will be attached to the existing parapet barriers, providing additional mitigation against contaminated water or other materials from entering the water environment;
- This should be checked frequently during wet or stormy weather to ensure its integrity;
- Toolbox talks will be given by the site supervisor and these will highlight the sensitivity of the marine habitats near the bridge and the importance of implementing the agreed good practice measures to avoid pollution;
- Relevant SEPA Pollution Prevention Guidelines (PPGs) and Guidance for Pollution Prevention (GPPs) especially GPP 5: "Works and maintenance in or near water" must be adhered to throughout the works;
- A contingency plan will be put in place to minimise the risk from pollution incidents or accidental spillages and all necessary containment equipment will be available on site and staff trained in its use;
- Machinery used in or near surface water must not leak any oil;
- If generators and other static plant with potential to leak fuel or oil do not have internal bunding that meets 110% capacity, then drip trays with 110% capacity must be used beneath diesel generators and other static equipment where there is a risk of leakage of oil or fuel;
- Oils, fuels and chemicals will be stored on an impermeable surface in bunded areas off the bridge at the standard requirement of 110% of containment capacity of the volume stored;
- A secure, designated, fully-bunded refuelling site (if required) must be established on an impermeable surface away from the water environment and any road drains within the scheme;
- Gullies/drainage entry points will be blocked with hessian sacking or similar to prevent pollutants being washed into the water bodies. This will be checked regularly, especially during periods of wet or stormy weather;
- Concrete mixing and washing area must be located at least 10 m from the water environment in order to comply with SEPA PPG 5 and minimise pollution risk;
- No wash water (or any other substance) to be discharged into the water environment.

During operation, no significant impacts are anticipated on the water environment as there will be no change in the surface area or drainage system of the bridge.

SOILS AND GEOLOGY:
No specific sensitivities have been identified in relation to geology and soils. There is no requirement to import topsoil or other material during construction. No significant impacts are predicted on geological or soil resources during the construction or operation phases.

WASTE, MATERIALS AND USE OF NATURAL RESOURCES:
Waste will be disposed of appropriately, with a preference for recycling, otherwise in accordance with Waste Management Licensing Regulations. There will be no requirement to dispose of any waste at sea.

RISK OF MAJOR ACCIDENTS OR DISASTERS:
The scheme is not anticipated to result in a greater risk of major accidents or disasters during construction, or operation. With the implementation of appropriate signage and traffic management, road users ad non-motorised users will be made aware of lane and footpath closures and the presence of traffic lights.

None of the scheme activities will result in a change to the bridge footprint or alignment of the trunk road. The activities will ultimately maintain the structural integrity of the bridge.

CUMULATIVE EFFECTS:
BEAR have two 5-year maintenance programmes planned on the A87 Skye Bridge and the A87 Carrich Bridge. They are scheduled over the same timeframe as the planned works at Clachan Duich.

This will result in some additional disruption to road users on the A87. This is unlikely to be significant as the maintenance programme activities will take place periodically throughout the 5-year period and will be programmed to avoid being carried out at the same time as other schemes. Furthermore, appropriate traffic management will be in place to minimise disruption.

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 Biodiversity parameters which could be affected during the works. Appendix E provides a list of consultees and a synopsis of their comments:

- Scottish Natural Heritage;
- Marine Scotland.

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:

- Lies wholly within the Kintail National Scenic Area.
- Has connectivity to the Lochs Duich, Long and Alsh Reefs SAC and Lochs Duich, Long and Alsh MPA.

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:

- The works will take place on an existing bridge and will be temporary over a short period of time;
- Following construction, the area in which the works are to be carried out will not be significantly different from what currently exists.

Location of the scheme:

- The Clachan Duich Bridge is adjacent to sites designated for their internationally-important habitats and protected features. A Habitats Regulations Appraisal has been carried out for the relevant designated sites. For each site, SNH have agreed with the assessment of 'likely significant effect' but no adverse effect on the integrity of the site. The agreement is providing that all the good practice and environmental management measures detailed in this document are implemented through the maintenance programme activities.
- Although the works are within the Kintail NSA, they are of a category that do not meet their criteria for planning consultation.
- No significant recorded cultural heritage resources are in the footprint of the scheme.

Characteristics of potential impacts of the scheme:

- No increase in traffic volume is anticipated and no changes to noise levels generated from traffic are anticipated.
- Potential construction impacts on local ecology, water quality, air quality and noise and vibration will be minimised through good practice and environmental management measures.
- During construction, there will be delays to vehicle travellers and cyclists but this will be controlled through appropriate traffic management.

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.

SIGNATURE: …… [Redacted]

PRINT NAME:……

DATE: ……..

Authorisation to publish Notice of Determination

SIGNATURE: ……[Redacted]

PRINT NAME:……..

DATE: ……..

Issue	Baseline Conditions	Impact	Mitigation
Air and Climate	There are no air quality monitoring stations within close proximity of the scheme. Existing air quality is primarily influenced by the A87 trunk road. The scheme location is primarily rural in nature, therefore air quality is likely to be high. The village of Allt a' Chruinn lies approximately 500m south of the works, however, there are no properties within 200 m of the scheme. The climate in and around the Kyle of Lochalsh area is classified as warm and temperate, with significant rainfall even in the driest months. The average annual temperature for the area is 8.1 °C.	Exhaust emissions from construction site plant, machinery and vehicles are likely to result in a temporary localised decrease in air quality. The existing parapets will be removed by circular saw and this will generate minimal dust. There will be no requirement for earthworks at the site. During operation, there will be no significant change in traffic flows or dynamics as a result of the scheme and consequently no impact on air quality is anticipated during operation.	• Plant, machinery and vehicles associated with the scheme should switch off engines when not in use in order to minimise emissions; • Machinery and vehicles will have been serviced regularly and switched off when not in use to reduce and control emissions; • Any skips holding waste on site will be covered to prevent dust being blown about; • Any loose materials will be covered during transportation to and/or from the site.
Cultural Heritage and Material Assets	A searc ment Scotland (HES) PastMap website[Redacted] indicates that there are a few local/re eritage interest within 300m of the scheme. The "Clachan Duich Bridge" itself which is a Canmore/RCAHMS record. The "Kintail Old Parish Church, Graveyard and Macrae War Memorial" Category B Listed Building is located approximately 200m north of the scheme. "St Dubthach's Church and Burial Ground" is a Scheduled Monument located approximately 200m north of the scheme.	Although there are a number of sites of cultural heritage interest within the vicinity of the scheme, these all lie out-with the footprint of the scheme. The refurbishments to the structure will maintain the integrity of the bridge, thus resulting in a positive impact during the operation phase	• If any unexpected archaeological finds are discovered, works will stop in the immediate vicinity and advice sought from the BEAR Scotland Environment Team.
Biodiversity	Lochs Duich, Long and Alsh Reefs Special Areas of Conservation (SAC) is located approximately 820m west of the scheme. This SAC is designated for reefs. Lochs Duich, Long and Alsh Marine Protected Area (MPA) lies approximately 90m west of the scheme. The MPA is designated for burrowed mud and flame shell beds. A previous site survey undertaken on 26th March 2015 identified evidence of otters (Lutra lutra) in the area in the form of five couches within the rock armour north and south of the bridge abutments. A further site survey undertaken on 13th March 2016 identified evidence of otters (Lutra lutra) in the form of six active otter resting places were identified, two of which lie within 30m of the works. The loch shoreline is considered to be of excellent quality for foraging and resting otters. During a survey on 9th August 2018, two active otter resting places were found within 30m of the proposed works. The other resting places previously identified were not surveyed due to adverse weather conditions causing the rock armour to be slippery and unsafe to access. The loch shoreline still provides highly suitable conditions for foraging and resting otters. Several species of conservation interest are recorded on the National Biodiversity Network (NBN) Atlas as being with 5 km of the proposed works (see Table 2 of Appendix D).	SNH have agreed that there will be no 'likely significant effect' on the qualifying interests of the SAC and advise that the works are capable of affecting the MPA features but insignificantly. The works will also pose a risk of pollution which if not controlled could have adverse effects on aquatic species. The works are likely to disturb otter using the surrounding habitats. The BEAR Scotland NW Organisational Otter Licence will be implemented during the course of the works.	• All conditions in the Marine Licence will be complied with throughout the course of the works; • Combi-safe edge protection will be erected around the edges of the bridge to prevent materials, grout, oil/fuel from entering the aquatic environment; • Debris netting will be installed within the gap between the combi-safe edge protection and 210 Clachan Duich bridge. The effectiveness of this will be regularly monitored and additional measures employed if required; • Mitigation detailed in the 'Road Drainage and the Water Environment' section must be adhered to; • All conditions of the organisational otter licence will be adhered to on site • Otter toolbox talk will be given to site personnel prior to commencement of the works; • Work will be confined to the 210 Clachan Duich bridge and the adjacent A87 carriageway and associated verges, with no requirement for access to shoreline on either side of the bridge; • Works will take place during daytime construction hours with no requirement for night-time works; • Site supervisor will brief all persons on site as part of the induction process to ensure that everyone is aware of the sensitive marine habitats below the bridge and the importance of implementing the mitigation detailed in the Site Environmental Management Plan (SEMP); • Site supervisor will brief all persons on site as part of the

			induction process to ensure that everyone is aware of the presence of otter, the mitigation measures, their legal obligations and any licensing conditions imposed on them; • Site personnel will be required to be vigilant for the presence of otters on site and should they be seen, work will be immediately stopped in the vicinity and the supervisor informed who will then seek specialist advice; • Where machinery is left on site overnight, it will be checked at the start of each shift for the presence of resting otters before being used; • Pollution Prevention measures will be strictly enforced on site and SEPA PPGs, in particular PPG 5: "Works and maintenance in or near water" will be strictly adhered to; • Emergency spill kits will be provided on site and a contingency plan will be in place to deal with environmental incidents; • All waste will be removed from site either for re-use or disposal in accordance with waste management regulations.
Landscape	The scheme lies within the Kintail National Scenic Area (NSA). The immediate landscape is characterised by hills to the north and south, church ruins and a memorial to the north and open views of the river/expansive views over Lochs Duich to the east and west.	During the construction period, there will be a short-term visual impact on the landscape as a result of the presence of construction plant, vehicles, traffic management and covered skip. During operation, there will be a slight positive visual impact as a result of the presence of new parapets that will be in keeping with the existing bridge arrangement.	• Measures relating to waste in the 'Waste and Materials' section must be adhered to; • All waste will be removed from site, with a preference for recycling or otherwise disposal at a licensed waste facility in compliance with Waste Management Regulations; • All temporary traffic signs and road cones will be removed from site on completion of the works.
Land	Land use in the surrounding area comprises small pockets of residential areas, coniferous forestry plantation, crofting and recreation including boating and hillwalking.	The works will take place entirely within the trunk road boundary, with no requirement for land-take during construction. No significant impacts are anticipated as a result of the works.	• The mitigation measures detailed in the 'Landscape and Visual Impact' section will be implemented.
Noise	There is no information on the Scottish Noise Mapping website for the scheme location. Existing noise levels are primarily influenced by the A87 trunk road. There are no sensitive receptors within 200m of the scheme.	There will be increased noise levels as a result of construction activities as a result of plant and vehicles and increased human presence. Works are planned to be carried out during day time construction hours. There will be no significant change in noise levels as a result of the scheme.	• All plant and machinery must be switched off when not in use; • All plant must be operated in a mode that minimises noise emissions and must have been maintained regularly to comply with relevant national and international standards.
Population and Human Health	The A87 trunk road is single carriageway at this location and the national speed limit applies. This road carries commercial and public traffic and is a popular tourist route which connects mainland Scotland to the Isle of Skye. Trafiic management will entail lane closures with temporary traffic lights. There will be no requirement for diversions. This section of the A87 trunk road does not form part of any designated cycling or walking route, however it is recognised that cyclists will use the road at this location. Pedestrians are also likely to occasionally use the road to cross the causeway. Equestrians are unlikely to frequently use the road as it is relatively narrow for a trunk road and can be busy especially in summer. However, equestrians may occasionally use the road to access spur-roads off the trunk road.	There will be some disruption to the local population during construction as traffic management measures will be in place. The works are short-term no significant impacts on vehicle travellers are predicted. The traffic management will also be required to take account of non-motorised travellers such as cyclists who will take longer to travel through traffic management. One footpath will remain open and accessible to pedestrians throughout the works and they will be safely directed to use the appropriate one. Priority access will be given to emergency vehicles at all times. During operation, there will be no adverse impacts on population and human health as there will be no change in the bridge design or traffic dynamics.	• Access across the bridge will be unaffected during the day, as one footpath will remain open throughout the works; • A traffic management plan that considers the needs of pedestrians and cyclists will be developed in consultation with the Police.
Water	The works lie within the Wester Ross, Assynt and Kintail groundwater area, classified by SEPA as being in good condition	During construction, the proposed works will pose a risk of pollution to the coastal water bodies below the bridge via existing drainage pathways. The works on the bridge deck	• All conditions of the Marine Licence will be complied with during

	in 2016. The River Croe flows beneath the A87 at the scheme location and discharges into Loch Duich. SEPA classified the River Croe as being at in good condition in 2016 and the coastal water body, Loch Duich, was also classified as being in good condition in 2016. As the works are taking place within the marine environment, a Marine Scotland marine licence application is currently being applied for.	will pose a risk of pollution from inadvertent release of oil, fuel and materials. No significant impacts are anticipated during operation.	the course of the works; • Mitigation measures detailed in the 'Ecology and Nature Conservation' section will be adhered to; • Machinery used near surface water must not leak any oil; • If generators and other static plant with potential to leak fuel or oil do not have internal bunding that meets 110% capacity, then drip trays with 110% capacity must be used beneath diesel generators and other static equipment where there is a risk of leakage of oil or fuel; • Oils, fuels and chemicals will be stored on an impermeable surface in bunded areas off the bridge at the standard requirement of 110% of containment capacity of the volume stored; • A secure, designated, fully-bunded refuelling site (if required) must be established on an impermeable surface away from the water environment and any road drains within the scheme; • Concrete mixing and washing area must be located at least 10 m from the water environment in order to comply with SEPA PPG 5 and minimise pollution risk; • Gullies/drainage entry points will be blocked with heavy duty plastic or similar to prevent pollutants being washed into the water bodies. This will be checked regularly, especially during periods of wet or stormy weather; • No wash water (or any other substance) to be discharged onto the ground, into drains or the water environment.
Soils and Geology	There are no statutorily designated geological sites within or adjacent to the scheme extents. No evidence of invasive non-native plant species was identified within or in close proximity to the scheme extents. Geological information has been obtained from the British Geological Survey (BGS) website [Redacted] Bedrock geology within . Superficial geology is recorded as gravel, sand and silt marine beach deposits formed up to three million years ago in the Quaternary Period.	No specific sensitivities have been identified in relation to geology and soils. The scheme aims to refurbish the bridge deck on an existing structure, with no requirement to import topsoil and with no impact on geological or soil resources as a result	• None required
Waste, Materials and Use of Natural Resources	Waste arising will predominately comprise of concrete and spalled asphalt. Materials will comprise of concrete, asphalt and waterproofing materials.	Potential to breach Duty of Care for waste arising.	• All waste must be removed from site in the safe manner by a licensed waste carrier. Waste carrier must have a valid SEPA waste carrier registration; • Temporary road signs and cones will be removed from site on completion of works; • Site will be monitored regularly for signs of litter and other potential contaminants. Litter must be removed before and after works taking place; • Any contaminated ground as a result of the works should be removed and transferred off site as special waste • A copy of the duty of care paperwork must be provided and filed appropriately; • COSHH waste and special waste must be removed from site by a specialised waste carrier. COSHH waste must NOT be mixed

			with general waste and/or other recyclables. • After concrete works, any residual concrete washwater must be collected and removed from site as special contaminated water.

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APPENDIX A: SCHEME LOCATION AND EXTENTS

Figure A1: Location of scheme

Figure B1: Receptors approximately 500 m south of the scheme. Source: PastMap

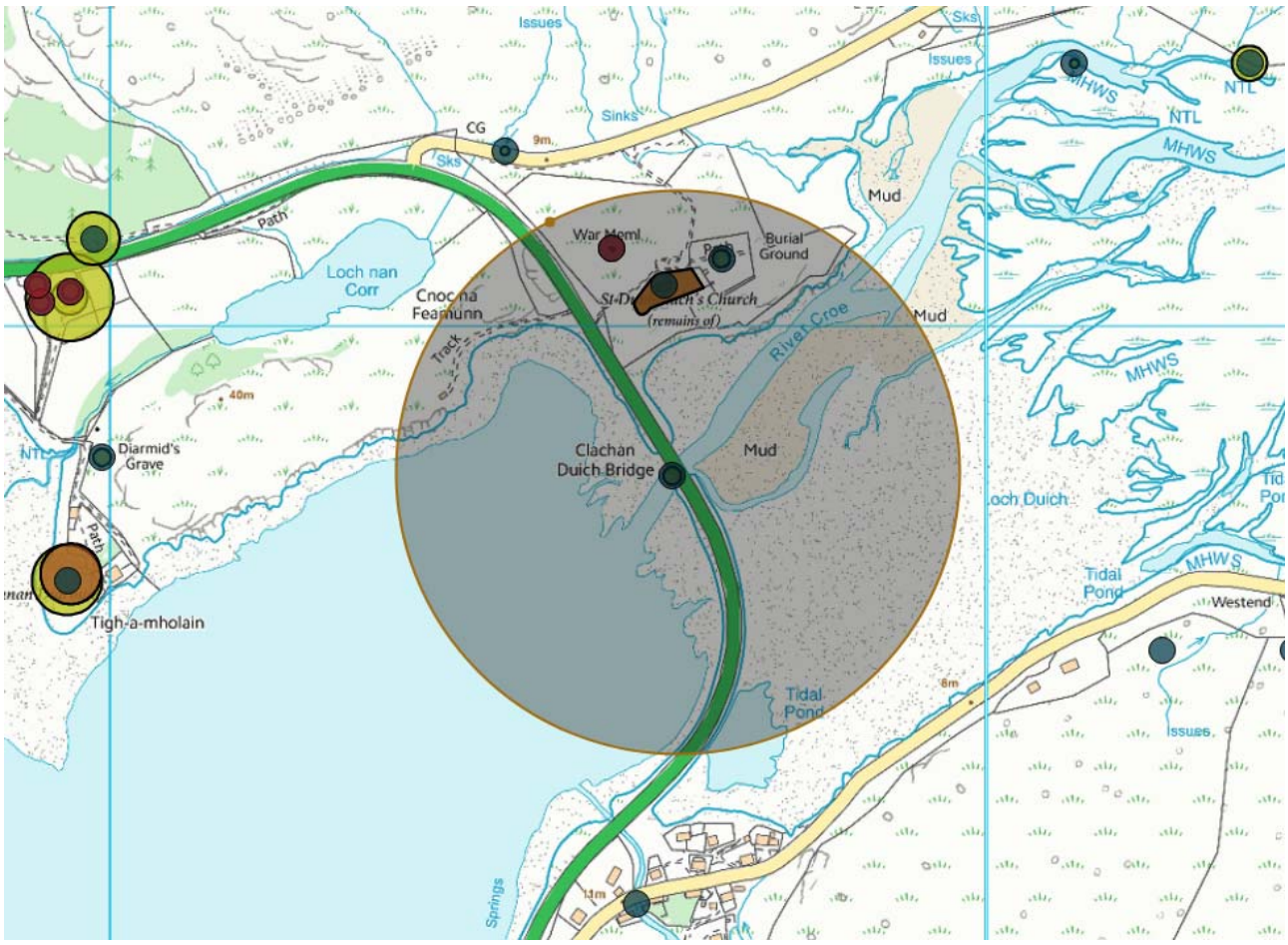

Figure C1: Sites of cultural heritage interest recorded within 300 m of scheme. Source: HES PastMap

Figure C1: Sites of cultural heritage interest recorded within 300 m of scheme. Source: HES PastMap

Dataset	Dataset UID	Name	OS NGR	Classification
HERHIGHL	MHG7440	St. Dubhthach's, Kintail	NG 94631 21045	Church
HERHIGHL	MHG48840	Kintail, St Dubhthac's Church, Clachan Duich Burial Ground	NG 94697 21077	Burial Ground; Churchyard
HERHIGHL	MHG46740	Macrae War Memorial - Kintail	NG 94574 21087	War Memorial
HERHIGHL	MHG31378	Graveyard - St. Dubhthach's, Kintail,	NG 94637 21039	Cemetery
HERHIGHL	MHG52389	Clachan Duich Bridge	NG 94641 20829	Road Bridge

HSLB	HBNUM: //portal.historicenvironment.scot/designation/LB7210 (Entity: 405586)	Macrae War Memorial, Inverinate, Kintail	NG 94572 21089	Listed Building
HSSM	6525	St Dubhthach's Church And Burial Ground	NG 94635 21042	Scheduled Monument
RCAHMS	293014	Clachan Duich Bridge	NG 94641 20829	Road Bridge (period Unassigned)
RCAHMS	12018	Kintail, St Dubhthac's Church	NG 94631 21047	Church (period Unassigned), Kintail Old Parish Church, St Duthac's Church, St Dubhtach's Church
RCAHMS	275649	Kintail, St Dubhthac's Church, Clachan Duich Burial Ground	NG 94697 21077	Burial Ground (period Unassigned), Churchyard (period Unassigned), Churchyard, Kilduich
RCAHMS	253028	Kintail, Macrae War Memorial	NG 94572 21089	War Memorial (20th Century), Morvich War Memorial

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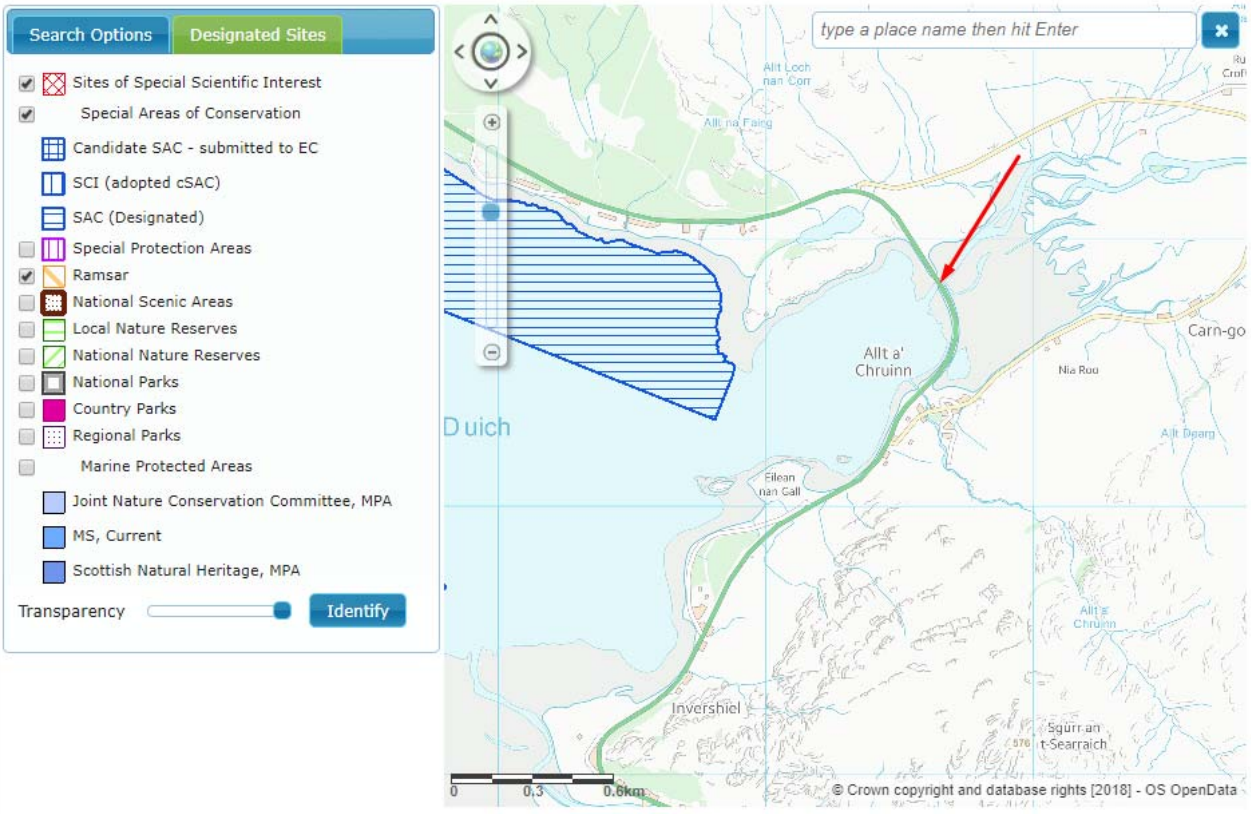
APPENDIX D: BIODIVERSITY



Site Details for Lochs Duich, Long and Alsh Reefs

Site Code	Site Name	Lead SNH Area	Designation	Documented Area(ha)	Designation Status	Most Recent Designated Date
8309	Lochs Duich, Long and Alsh Reefs	South Highland	Special Area of Conservation	2373.01	Current	17/03/2005

Key Site Documents	File Size (kb)
SAC Qualifying Interest List	32
Conservation Objectives	33
SAC Map	4886

Features (1) | Feature Pressures (1) | Agreements (0) | Casework (164) | Map | Links

Note to land owners and occupiers.

Search or filter:

Show 25 entries

Feature	Feature Category	Latest Assessed Condition	Summary Condition	Last Visit Date
Reefs	Marine (including marine mammals)	Unfavourable Declining	Unfavourable	29/06/2004

Showing 1 to 1 of 1 entries

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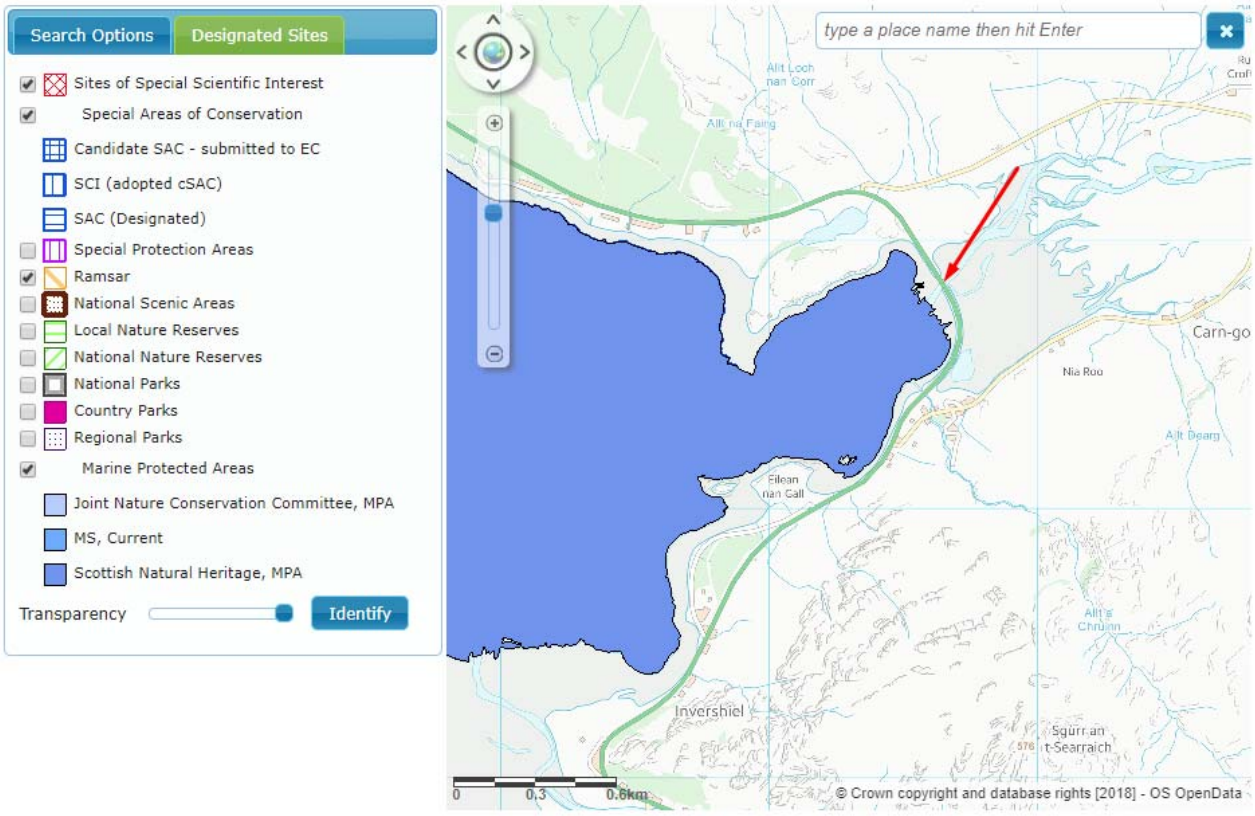

Site Details for Lochs Duich, Long and Alsh

Site Code	Site Name	Lead SNH Area	Designation	Documented Area(ha)	Designation Status	Most Recent Designated Date
10416	Lochs Duich, Long and Alsh	South Highland	Nature Conservation MPA	3700.0	Current	07/08/2014

Key Site Documents	File Size (kb)
Assessment Against the MPA Guidelines	726
MPA Site Summary	2145
MPA Data Confidence Assessment	2019

Designation Order

Features (2) | Feature Pressures (0) | Agreements (0) | Casework (56) | Map | Links

Note to land owners and occupiers.

Search or filter:

Show 25 entries

Feature Category	Feature	Statutory Interest
Inshore sublittoral sediment (Marine)	Burrowed mud	Protected feature
Inshore sublittoral sediment (Marine)	Flame shell beds	Protected feature

Showing 1 to 2 of 2 entries

Figure D1: SNH Sitelink search results

Table D1: NBN Atlas search results within 5 km of the scheme

Taxon Name	Common Name	Taxon Group	Licence	Data provider
Lutra lutra	European otter	Terrestrial mammal	CC-BY	National Trust for Scotland
Meles meles	Eurasian badger	Terrestrial mammal	CC-BY	Wild Surveys
Pipistrellus pipistrellus	Common pipistrelle	Terrestrial mammal	CC-BY	National Trust for Scotland
Plecotus auritus	Brown Long-Eared Bat	Terrestrial mammal	CC-BY	Bat Conservation Trust
Martes martes	Pine marten	Terrestrial mammal	CC-BY	Highland Biological Recording Group
Felis silvestris	Wild cat	Terrestrial mammal	CC-BY	Biological Records Centre
Phocoena phocoena	Phocoena phocoena	Marine mammal	CC-BY	Highland Biological Recording Group
Phoca vitulina	Common seal	Marine mammal	CC-BY	Highland Biological Recording Group
Halichoerus grypus	Grey seal	Marine mammal	CC-BY	Biological Records Centre
Anguis fragilis	Slow-worm	Reptile	CC-BY	Biological Records Centre
Zootoca vivipara	Common lizard	Reptile	CC-BY	Highland Biological Recording Group
Salmo salar	Atlantic salmon	Fish	CC-BY	Biological Records Centre
Anguilla anguilla	European eel	Fish	CC-BY	Biological Records Centre
Salmo trutta	Brown/sea trout	Fish	CC-BY	Biological Records Centre

Table D2: Invasive non-native species recorded on the NBN Atlas within 5 km of the scheme

Taxon Name	Common Name	Taxon Group	Licence	Data provider
Neovison vison	American mink	Terrestrial mammal	CC-BY	Highland Biological Recording Group

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Figure D2: Otter resting place identified within the rip rap at the northern abutment, marked with spraint

Figure D3: Otter resting place identified within the rip rap at the southern abutment, marked with spraint

APPENDIX E: LANDSCAPE EFFECTS

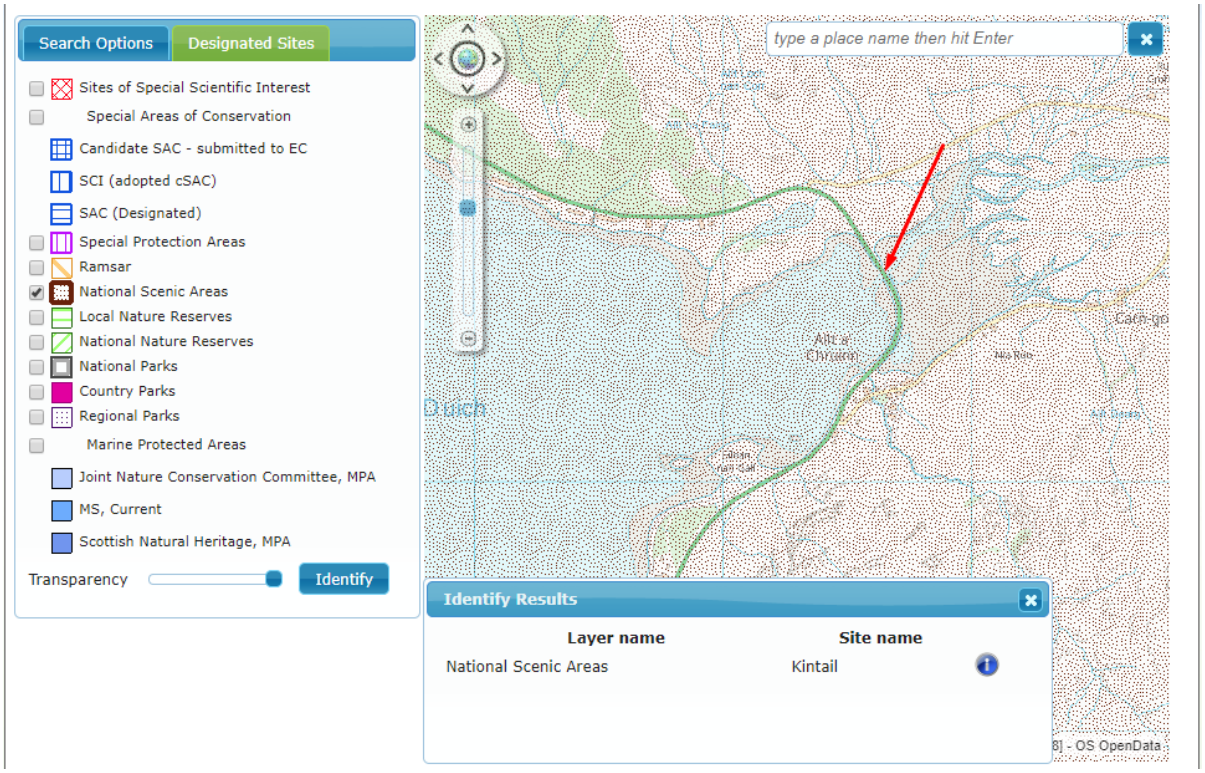

Figure E1: SNH Sitelink results showing the Kintail National Scenic Area

Figure E2: View of landscape surrounding the 210 Clachan Duich bridge

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APPENDIX F: CONSULTATION

Summary of Consultation

Consultee	Consultee Response	Addressing Concerns
Scottish Natural Heritage	[Redacted]	Subject to implementation of the proposed mitigation measures, there will be no likely significant effect on the reefs within Lochs Duich, Long and Alsh SAC. We also agree that the works are capable of affecting the burrowed mud protected feature of Lochs Duich, Long and Alsh NC MPA. However, taking into account the proposed mitigation, these effects are insignificant. No comments were made regarding the Kintail National Scenic Area.
Marine Scotland	[Redacted]	We have an open marine licence application for this work (# 06193) which was submitted to us 14 October 2016 by Cameron G Ewing (attached) Over the past 18 months we have been waiting for Bear Scotland to publish a public notice so that we could move forward to consultation. At present this is still pending. Could you explain why when there was an application made for a marine licence you no longer think this work requires one and should be exempt? For clarity: MARINE (SCOTLAND) ACT 2010, PART 4 MARINE LICENSING, article 21, section 1(5) states: For the purpose of this Part, it is a licensable marine activity to do any of the following – 5 - To construct, alter or improve any works within the Scottish marine area either – (a) in or over the sea, or (b) on or under the seabed The “sea” includes – (a) any area submerged at mean high water springs tide, (b) the waters of every estuary, rive or channel, so far as the tide flows at mean high water springs tide.

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