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## A82 Kiachnish Bridge Scour Repairs

### Record of Determination

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**Document:**

**EC DIRECTIVE 97/11  
ROADS (SCOTLAND) ACT 1984**

**RECORD OF DETERMINATION**

**Name of Project:**

A82 Kiachnish Bridge Scour Repairs

**Location:**

A82 Kiachnish Bridge

Bridge centre point: NN 06593 69083

**Description of project:**

Kiachnish Bridge lies approximately 6.5km south of Fort William and carries the A82 trunk road over the River Kiachnish. The River Kiachnish outfalls into Loch Linnhe and is below Mean High Water Springs (MHWS) at the proposed works location.

Recent inspections have identified scour damage to the bridge which requires repair. The main works will comprise installation of rip-rap rock armour across the full width of the channel bed to create an area of stone pitching. This is required to protect the bridge piers as they have been subjected to both fluvial and coastal scouring. This area of bed protection will extend approximately 12m upstream and downstream of the bridge. The existing channel will be excavated to a depth of 2m below the existing ground level and filled with large diameter rocks (rip-rap rock armour). This will subsequently be reinstated with reclaimed riverbed material. See drawings and scheme location in Appendix A.

The excavation and rip-rap rock armour installation will utilise a phased method with works being completed in one span of the bridge before works start in the next span to ensure the stability of the bridge is maintained throughout the works.

Works are proposed to start in August 2021 although this will be dependent on receiving the appropriate consents in time. In water works are expected to take between three and four months to complete, with each phase of works taking between four and six weeks to complete. Works are therefore expected to be completed by the end of January 2022. An outline programme is given below.

Site set-up: August 2021

Phase 1: September/October 2021

Phase 2: October/November 2021

Phase 3: November/December 2021

Demobilisation: January 2022

The works will be carried out in a dry working area and therefore significant temporary works are required to temporarily divert the river flows and tides. The excavations will also require supports using either trench boxes or trench sheets. The water management method will utilise rock bags covered with a water barrier membrane. These will be repositioned between each phase of works by crane to create dry working areas. See drawings in Appendix A.

**Phase 1 - Span 1 (September/October 2021):**

- Set up site compound;
- Establish dry working area around span 1 using rock bags (full flow of the River Kiachnish to be diverted through spans 2 and 3);
- Excavate up to 2m below existing bed level;
- Install rip-rap rock armour;
- Reinststate using reclaimed riverbed material.

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Phase 2 - Span 3 (October/November 2021):

- Move dry working area from span 1 to span 3 (full flow of the River Kiachnish to be diverted through spans 1 and 2);
- Excavate up to 2m below existing bed level;
- Install rip-rap rock armour;
- Reinstate using reclaimed riverbed material.

Phase 3 – Span 2 (November/December 2021):

- Move dry working area from span 3 to span 2 (River Kiachnish will be flumed through steel pipes running through spans 1 and 3);
- Excavate up to 2m below existing bed level;
- Install rip-rap rock armour;
- Reinstate using reclaimed riverbed material;
- Demobilise from site.

Additional works to carry out a small number of concrete repairs will also be required throughout all phases of works. Some landscaping works may not be carried out until March 2022 to allow for works being undertaken at a more appropriate time of year.

Access from the southern bank both upstream and downstream of the bridge will be required to carry out the proposed works. A site compound will be located on the southern bank either upstream or downstream of the Kiachnish Bridge (to be agreed with landowner).

No road closures are required to facilitate the works. Traffic management over the bridge will be required when setting up or removing the site compound and moving plant or material between lifting locations. Working hours will generally be between 7am and 7pm.

A Marine Licence will be required for the proposed works as set out in Part 4 of the Marine (Scotland) Act 2010.

The works do not fall within Annex I of the Environmental Impact Assessment (EIA) Directive 2011/92/EU as amended by 2014/52/EU. Transport Scotland has advised that, under the Roads (Scotland) Act 1984 as amended by the Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017, the works are considered to be a 'relevant project' falling within Annex II of the above EIA Directive due to exceeding 1ha in area. Therefore, the scheme has been screened against the criteria in Annex III of the EIA Directive and the conclusions recorded in this Record of Determination (RoD).

**Project Procurement:**

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

**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 is no air quality monitoring site at the scheme location<sup>1</sup>; the closest monitoring site is in Fort William<sup>2</sup> which lies approximately 6.5km north of the scheme location. Air quality was recorded as Low (Index 2) on 22nd of December 2020. The site does not lie within an Air Quality Management Area (AQMA)<sup>3</sup>.

<sup>1</sup> <http://www.scottishairquality.scot/latest/> (Accessed 22/12/2020)

<sup>2</sup> [http://www.scottishairquality.scot/latest/site-info?site\\_id=FW](http://www.scottishairquality.scot/latest/site-info?site_id=FW) (Accessed 22/12/2020)

<sup>3</sup> <https://uk-air.defra.gov.uk/aqma/maps> (Accessed 22/12/2020)

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Local air quality in the area is likely to be reasonable due to its rural location, although the trunk road corridor itself will be affected to some degree by vehicle emissions. There are a few residential properties and businesses within 300m of the scheme extents which are shown in Figure B1 and Table B1 in Appendix B.

**CULTURAL HERITAGE AND MATERIAL ASSETS:**

According to Pastmap<sup>4</sup>, the Category B Listed Building Kiachnish Bridge (Old) over River Kiachnish near Coruanan (LB7071) is located approximately 110m east of the A82 Kiachnish road bridge.

There are also a few sites of local cultural heritage interest recorded on Historic Environment Record and/or the Canmore database located within 300m of the scheme. The nearest of these include the A82 road bridge itself and Kiachnish Bridge Crofting Township, encompassing the land area directly north of the river and road bridge.

See Figure C1 in Appendix C for a map showing sites of cultural heritage interest within 300m of the proposed works.

**BIODIVERSITY:**

There were no designated sites identified on NatureScot Sitelink<sup>5</sup> which were within, or had connectivity to, the proposed works.

The National Biodiversity Network (NBN) Atlas<sup>6</sup> records the following protected species within 2km of the scheme during the past ten years. Only records with open-use attributions (OGL, CCO, CC-BY) were included in the search criteria.

- Otter (*Lutra lutra*)
- Red squirrel (*Sciurus vulgaris*)

The NBN Atlas records the following non-native invasive species using the same search criteria:

- Japanese knotweed (*Fallopia japonica*)

There is woodland listed as Ancient on the Ancient Woodland Inventory (AWI)<sup>7</sup> located within 300m of the scheme. There are stands of AWI woodland (of semi-natural origin) located approximately 80m south and 160m east of the bridge.

Habitats shown on the EUNIS land cover map<sup>8</sup> in the surrounding area include deciduous woodland to the east and south of the bridge. Patches of improved grassland are present to the north, south, and west of the bridge and are associated with local residential properties. Areas of coastal shingle and littoral rock are present along the shore of Loch Linnhe west of the bridge, with freshwater habitats in the River Kiachnish further upstream to the east. The habitats available in the wider area are suitable for protected species such as those listed above as well as pine marten (*Martes martes*) and nesting birds between March and August.

A site visit was carried out by BEAR NW Environment Team in November 2020 to assess ecological constraints within 200m of planned scour works to Kiachnish Bridge. Results of this survey are detailed below.

Otter

[Redacted]

<sup>4</sup> <https://pastmap.org.uk/map> (Accessed 22/12/2020)

<sup>5</sup> <https://sitelink.nature.scot/map> (Accessed 22/12/2020)

<sup>6</sup> [https://records.nbnatlas.org/explore/your-area#56.773077134407735|-5.166634687805183|13|ALL\\_SPECIES](https://records.nbnatlas.org/explore/your-area#56.773077134407735|-5.166634687805183|13|ALL_SPECIES) (Accessed 22/12/2020)

<sup>7</sup> <https://map.environment.gov.scot/sewebmap/> [Ancient Woodland Inventory Scotland] (Accessed 22/12/2020).

<sup>8</sup> <https://map.environment.gov.scot/sewebmap/> [HabMoS – EUNIS land cover Scotland] (Accessed 22/12/2020).

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[Redacted]

Birds

During the 2020 site visit, pigeons (*Columba sp.*) were seen roosting on the bearing shelf about both abutments. It is possible that they may also nest on the bridge. A dipper (*Cinclus cinclus*) was seen foraging near the bridge during the site visit. There were trees and areas of scrub and long grass surrounding the bridge which provide habitat suitable for nesting birds during the breeding bird season (generally considered to be between March to August inclusive).

Bats

Trees within 30m of the bridge, temporary works area, and site compound did not have features suitable for roosting bats. Most of the trees were single stem alder (*Alnus glutinosa*) which lined the watercourse. The bridge itself is a three-span concrete structure with pre-cast elements. It was considered to have negligible hibernation potential due to the open and exposed nature of the bridge and therefore no winter hibernation inspections (WHI) are required. The bridge was considered to provide low to moderate potential as a summer roost and therefore between one and two summer activity surveys will be required during the core active bat period (May to September inclusive). Habitats surrounding the bridge would provide foraging opportunities for bats along the watercourse and riparian woodland. Woodland surrounding the bridge was limited but became more dominant with more mature tree specimens upstream.

Fish

The National Biodiversity Network (NBN) Atlas records the following protected fish species within 2km of the scheme. Only records with open-use attributions (OGL, CCO, CC-BY) were included in the search criteria. All records and from the Database for the Atlas of Freshwater Fishes from 1990. There are no recent records listed on the NBN.

- European eel (*Anguilla anguilla*)
- Atlantic salmon (*Salmo salar*)
- Brown/sea trout (*Salmo trutta*)

The Kiachnish bridge spans the River Kiachnish near where it enters Loch Linnhe North. The River Kiachnish was classified by the Scottish Environment Protection Agency (SEPA) in 2018 as having an overall status of 'Moderate'<sup>9</sup>. Overall ecology of the river and hydromorphology is recorded as moderate with hydrology recorded as poor, which is likely due to a recently installed hydroelectric scheme. Loch Linnhe North is a sea loch that was classified by SEPA in 2018 as having an overall status of 'Good'<sup>10</sup>.

The Kiachnish River is tidal within the scheme extents, with the tidal limit approximately 100m upstream by the old masonry arch bridge. Salmonids spawn upstream in freshwater; therefore, there will be no salmonid spawning within the footprints of the scheme. However, both salmon and sea trout will migrate past the Kiachnish Bridge to travel to spawning ground further upstream.

Invasive Non-Native Species (INNS)

Both Japanese knotweed and Rhododendron (*Rhododendron ponticum*) were recorded on site. A stand of Japanese knotweed was found on the downstream left-hand bank which was approximately 8m by 10m. This area looked like it had undergone treatment by the local estate as materials had been burned here on top of the stand of knotweed in an attempt to control its spread. Further Japanese knotweed was identified on the downstream right-hand bank outside of the working area. Rhododendron was identified on the right-hand bank both upstream of the bridge and at the top of the bank downstream of the bridge.

Other protected species

No other signs of protected species were recorded on site although pine marten and red squirrel may be present commuting or foraging in the wider area.

For a full list of field signs and a map showing locations see Table D1 and Figure D1 in Appendix D.

<sup>9</sup> <https://www.sepa.org.uk/data-visualisation/water-classification-hub/> (Accessed 22/12/2020)

<sup>10</sup> As above

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**LANDSCAPE:**

The immediate surrounding landscape comprises open views across Loch Linnhe to the west. The landscape in the wider area is dominated by woodland with some agriculturally improved grassland and amenity grassland associated with residential properties.

**LAND:**

The surrounding area is dominated by woodland with Loch Linnhe to the northwest. The scheme is located south of Fort William, which is a main urban centre on the west coast of Scotland. It is popular with tourists and outdoor recreationists during the summer months.

**POPULATION AND HUMAN HEALTH:**

The scheme passes through a rural area but there are some residential properties within 300m of the scheme extents. These are as detailed in the Air and Climate section.

There are no National Cycle Network (NCN) cycle routes<sup>11</sup> located within 300m of the scheme, although cyclists may still use the A82 carriageway. Likewise, there are no walking routes listed on WalkHighlands located within 300m of the scheme<sup>12</sup>.

There is a paved footpath along the northbound carriageway of the A82 that runs from A82 Kiachnish Bridge north into Fort William.

**WATER:**

The bridge spans the River Kiachnish near where it enters Loch Linnhe North. The River Kiachnish was classified by SEPA in 2018 as having an overall status of 'Moderate'<sup>13</sup>. Loch Linnhe North is a sea loch that was classified by SEPA in 2018 as having an overall status of 'Good'<sup>14</sup>. Due to the location of works in an area that falls within the boundary of Loch Linnhe North below MHWS, a Marine Licence from Marine Scotland has been applied for.

The scheme falls within the Fort William groundwater body<sup>15</sup>, which was classified by SEPA in 2018 as having 'Good' overall condition. It is also a Drinking Water Protected Area (Ground)<sup>16</sup>.

**GEOLOGY AND SOILS:**

The scheme does not lie within a Geological Conservation Review Site (GCRS)<sup>17</sup>.

Bedrock within the scheme extent is comprised of Fort William Formation – Micaceous Psammite and Semipelite, which is a metamorphic bedrock<sup>18</sup>.

Superficial deposits within the scheme extent are recorded as Raised Beach Deposits, 1 – Gravel, Sand and Silt, which are sedimentary deposits<sup>19</sup>.

Soils within the scheme extent are recorded as peaty gleys<sup>20</sup>.

**WASTE, MATERIALS AND USE OF NATURAL RESOURCES:**

<sup>11</sup> <https://osmaps.ordnancesurvey.co.uk/56.73402,-5.09057,11> (Accessed 22/12/2020)

<sup>12</sup> <https://www.walkhighlands.co.uk/fortwilliam/fortwilliam.shtml> (Accessed 22/12/2020)

<sup>13</sup> <https://www.sepa.org.uk/data-visualisation/water-classification-hub/> (Accessed 22/12/2020)

<sup>14</sup> As above

<sup>15</sup> <https://map.environment.gov.scot/sewebmap/> [Groundwater Classification] (Accessed 22/12/2020)

<sup>16</sup> <https://map.environment.gov.scot/sewebmap/> [Drinking Water Protected Area (Ground)] (Accessed 22/12/2020)

<sup>17</sup> <https://map.environment.gov.scot/sewebmap/> [Geological Conservation Review Sites] (Accessed 22/12/2020)

<sup>18</sup> <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> (Accessed 22/12/2020)

<sup>19</sup> As above

<sup>20</sup> [http://map.environment.gov.scot/Soil\\_maps/?layer=11#](http://map.environment.gov.scot/Soil_maps/?layer=11#) (Accessed 22/12/2020)

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Waste materials will comprise riverbed and soil excavated to install rip-rap rock. The final destination for these materials is yet to be confirmed. Where the riverbed material is considered to be suitable, it will be re-used to reinstate the riverbed. All relevant SEPA exemptions and consents will be in place to ensure the material is suitable for its given purpose and that all appropriate regulatory processes have been followed.

**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.

The following headings have been set out to follow DMRB chapters for environmental assessment and do not reflect a ranking of impact severity. '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:**

There is potential for temporary impacts on air quality during construction as a result of activities such as excavation, transportation of materials, the presence of construction traffic and vehicles idling on site.

Provided the following mitigation measures are adhered to during the works, impacts on air quality during construction are not anticipated to be significant.

- A designated laydown area will be established on level ground away from the excavation and works.
- All materials will be stored in the laydown area and only moved to site when they are required.
- Prolonged storage of debris on site exposed to wind should be avoided. Materials should be wetted down or covered when exposed to wind for lengthy periods of time.
- All delivery vehicles carrying material with dust potential will be covered when traveling to or leaving site, preventing the spread of dust beyond the work area.
- Material stockpiles will be reduced as much as reasonably practicable by using a 'just in time' delivery system. All material will also be stored on made ground (e.g. within site compound) and 10m away from potential pollution pathways such as drains and watercourses where feasible.
- Materials should be removed from site as soon as is practical.
- Vehicles removing excavation materials must have their loads effectively covered.
- All plant, machinery and vehicles associated with the scheme must be maintained to the appropriate standards and must switch their engines off when not in use.
- Where possible, materials are to be sourced locally to reduce greenhouse gas emissions associated with materials movement.
- Cement bags will remain closed when not in use to prevent cast off to the surrounding environment.
- The movement of dusty material will be minimised by appropriately planning material movements.
- Any stockpiled material on site, such as rock, will be monitored daily to ensure no risks of dust emissions exists. Where a risk of dust emissions exists from stockpiles, these are to be dampened down. This is likely to require the use of mobile water bowsers.
- Good housekeeping will be employed throughout the works.

The proposed works are not expected to affect air quality during the operation phase as there will be no significant change in traffic levels or dynamics at this location.

**CULTURAL HERITAGE AND MATERIAL ASSETS:**

The working area will be confined to the area surrounding Kiachnish Bridge adjacent to the trunk road boundary. The Kiachnish Bridge (Old) is a Category B Listed Building and lies 110m distant from the trunk road bridge. There are also a few sites of local cultural heritage interest recorded on Historic Environment Record and/or the

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Canmore database located within 300m of the scheme. The nearest of these include the A82 road bridge itself and Kiachnish Bridge Crofting Township, encompassing the land area directly north of the river and road bridge. Provided the following mitigation measures are adhered to, potential impacts on cultural heritage during construction are not anticipated to be significant.

- If there are any unexpected archaeological finds, works will stop temporarily in the vicinity, the area will be cordoned off and a member of the BEAR Environment team will be contacted for advice.
- Laydown area will be sensitively located to avoid areas of cultural heritage interest including the Category B Listed Kiachnish Bridge (Old).
- There will be no storage of plant, materials or equipment against and buildings, bridges, walls or fences.

The works are not anticipated to result in significant impacts on cultural heritage interests during the construction or operational phase.

**BIODIVERSITY:**

There will be no impacts on any designated sites, as none have been identified within or with connectivity to the proposed works, see Appendix E for consultation response from NatureScot.

**Terrestrial Mammals (not including bats)**

[Redacted]

Therefore, a derogation licence is not required at this time to allow works to proceed.

[Redacted]

No other signs of protected species were recorded on site although pine marten and red squirrel may be present commuting or foraging in the wider area.

Works will primarily be carried out during daylight hours when otter tend to be less active. In addition, the following mitigation measures will be followed on site to avoid impacts to otters in the area:

- An Environmental Clerk of Works (ECow), will attend site regularly during construction. More frequent visits may be required during sensitive site activities (e.g. dry working area installation, reinstatement of riverbed, landscaping activities). The ECow will advise on the suitability and effectiveness of pollution prevention measures. If required, the ECow will have the power to conduct audits of the site at any time and stop works should any breach of the Site Environmental Management Plan (SEMP) or Marine Licence conditions be identified. The ECow will provide advice and recommendations to the contractor.
- Site personnel are instructed not to approach or touch any animals seen on site.
- Site personnel should remain vigilant for the presence of protected species including otter, pine marten, red squirrel, and nesting birds over the works period.
- Measures to be implemented to protect the aquatic environment are detailed in Section 10: Road Drainage and Water Environment.
- Tracking of machinery through watercourses will not be permitted, except where it is essential to install temporary works to achieve dry working areas.
- No discharges into any watercourses or drainage systems are permitted.
- All construction operatives are to be briefed through toolbox talks prior to works commencing using the toolbox talks for otter, pine marten and red squirrel. The talks are to specifically cover ecology, field signs of protected species, and legislation. Briefings are to be clear and unambiguous, with all staff informed to stop works where a concern is raised. Works may not commence until advice from an appropriately qualified ecologist is sought and appropriate mitigation is in place, where required.
- Where protected mammals are encountered or move within 50m of the active works, works will cease until the animal(s) move further away than 50m from the construction site or until the contractor's ECow can provide advice.
- All material, machinery and equipment will be subject to checks for resting mammals daily prior to any works commencing to prevent entrapment or injury of any mammals.



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- A 'soft start' will be implemented on site each day. This will involve switching on vehicles and checking under/around vehicles and the immediate works area for mammals prior to works commencing to ensure none are present and that there is a gradual increase in noise.
- Any excavations, exposed pipes/drains, or areas where an animal could become trapped (e.g. storage containers) will be covered over when not in use, at the end of each shift, and following completion of the works to avoid animals falling in and becoming trapped. Where this is not possible excavations should be suitably ramped to allow animals to escape.
- If fencing is utilised at any point during the works, a gap of 200mm from ground level must be provided, allowing free passage for mammals and preventing entrapment.

During the operational phase, impacts on terrestrial mammals are considered to be non-significant due to the lack of suitable habitat within the vicinity of the works.

**Birds**

There are areas of scrub and trees within the scheme extents, as well as the bridge itself, which are considered to provide some habitat suitable for nesting birds. Any vegetation clearance to allow for installation of temporary works and site compound should be undertaken before March in advance of the works starting on site to make these areas unsuitable for nesting birds. Where this is not possible, the ECoW will carry out breeding bird checks within 24 hours prior to carrying out any vegetation clearance. The bird breeding season is generally considered to run from March to August, inclusive. The works will take place predominantly outside of the main breeding period for birds.

Providing the following mitigation is adhered to during the works, significant impacts are not anticipated during the construction phase.

- A toolbox talk on breeding birds will be provided to all site staff prior to works commencing.
- If vegetation clearance is required, it should take place outwith the breeding bird season.
- If vegetation clearance is required during the breeding bird season, a check for nesting birds should be carried out within 24 hours prior to clearance if appropriate (depending on the amount and nature of vegetation to be removed and timing within the breeding bird season).
- If a nesting bird is observed on site during works, all works within 30m must stop until the ECoW or BEAR Scotland NW Environment Team can provide advice.

With the above mitigation measures in place, no significant negative impacts on breeding birds are expected as a result of works.

**Bats**

The bridge was considered to have negligible hibernation potential due to lack of suitable roost features for hibernating bats and the open and exposed nature of the bridge; therefore, no winter hibernation inspections (WHI) are required. Two summer bat activity surveys of the bridge will be required to identify whether any bat roosts are present in the bridge. If any bat roosts are identified, a bat derogation licence issued by NatureScot will be applied for and secured prior to any works taking place. If no bats are found, works can proceed as planned with all staff advised to remain vigilant for bats throughout the works.

The following mitigation measures will ensure no significant negative impacts on the favourable conservation status or long- or short-term welfare of local bat populations:

- If a bat licence is required, all conditions of any bat derogation licence issued by NatureScot must be adhered to during works. Any breach of the licence conditions will result in an environmental offence and persons responsible may face fines and/or prosecution.
- Site staff must remain vigilant for bats during works. If bats are found, works will stop and the ECoW will be contacted immediately. Works will not recommence until advised by the ECoW.
- Artificial lighting used during hours of darkness should be restricted to the immediate working area and should be directed away from areas of suitable habitat (e.g. watercourses, woodland, shrubs) as far as is safe and reasonably practicable.
- If a bat (or bats) are observed flying in the vicinity of works during the day, works are to stop and the ECoW is to be consulted. Works will not recommence until advised by the ECoW.

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With appropriate mitigation measures and licences in place, it is expected that there will be no significant negative impacts on the favourable conservation status or long- or short-term welfare of local bat populations as a result of works.

**Fisheries**

The Kiachnish River is tidal within the scheme extents, with the tidal limit approximately 100m upstream near the old masonry arch bridge. Therefore, there will be no salmonid spawning within the footprints of the scheme; however, both salmon and sea trout will migrate past the Kiachnish Bridge to travel to spawning ground further upstream. The Lochaber District Salmon Fisheries Board (LDSFB) have advised that in the River Kiachnish adult salmonids will run upstream between June and October to spawning habitat with the smolt run (juveniles moving downstream) in April and May.

Consultation with the LDSFB(Appendix E) highlighted the importance of ensuring free and easy access for migratory fish, both upstream and downstream during the works. Due to the expected design of the temporary works, this has not been possible to achieve. During works to the central span, the watercourse will need to be flumed through pipes for a period of approximately 4-6 weeks. The LDSFB have advised that any works which will prevent migratory access should be completed between mid-November and mid-March to avoid the adult fish run from June to October and the smolt run in April/May. They advised that lighting and noise which can disturb fish is primarily a problem when they are running and therefore pose less risk to fish between mid-November to mid-March. The LDSFB also advised that while measures should always be in place to prevent pollution and transport of sediments downstream, the risk of sediment transport impacting fish is reduced in this case due to the scheme's location in transitional waters, which do not support spawning or juvenile habitat. Therefore, the risk of smothering highly sensitive eggs or juvenile fish as a result of sediment transfer from in-stream works is considered to be negligible.

There is potential for temporary, indirect impacts on fish during construction due to disturbance as a result of lighting and activities causing vibrations near the watercourse and temporary loss of habitat as a result of construction works. With the following mitigation in place, impacts are not anticipated to be significant.

- Mitigation measures described in the Water Section will be followed to minimise potential impacts on the water environment.
- Pollution prevention and sediment containment measures will be in place for the duration of construction.
- Works in span 2, when the watercourse will need to be flumed, will be carried out between mid-November to mid-March. At all other times, free migratory passage to fish must be maintained.
- The works will be carried out in a dry working area.
- Lighting at night on site should also be kept to a minimum as this can deter migratory fish from travelling. This is of particular importance between March and October when the fish are running.
- Tracking of machinery through the watercourses will not be permitted, except where it is essential to install temporary works to achieve dry working areas.
- No discharges into any watercourses or drainage systems are permitted.
- An Environmental Clerk of Works (ECow), will attend site regularly during construction. More frequent visits may be required during sensitive site activities (e.g. dry working area installation, reinstatement of riverbed, landscaping activities). The ECow will advise on the suitability and effectiveness of pollution prevention measures. If required, the ECow will have the power to conduct audits of the site at any time and stop works should any breach of the SEMP or Marine Licence conditions be identified. The ECow will provide advice and recommendations to the contractor.

No significant impacts are anticipated on fisheries during operation as there will be no loss of spawning or feeding habitat for diadromous fish species.

**INNS**

Both Japanese knotweed and Rhododendron were recorded on site. A stand of Japanese knotweed was found on the downstream left-hand bank in an area that may need to be accessed to facilitate the works.

If vegetation or soil containing INNS must be removed, it should be disposed of appropriately at a licenced facility. Biosecurity measures should be in place for all site staff and equipment/vehicles. Agreement on the location of

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the site compound and the details of the biosecurity measures required on site will need to be made in advance of works starting.

Provided that the following mitigation measures are followed during construction, impacts on habitats as a result of spread of INNS are not expected.

- Construction methods will take place sensitively to reduce as far as possible encroachment of plant and machinery on habitats outside of the work footprint.
- Material storage areas and site compound will be sited sensitively to avoid requirement for further land take. Where practical, this will be in existing hardstanding areas on level ground.
- An Environmental Clerk of Works (ECoW), will attend site regularly during construction. More frequent visits may be required during sensitive site activities (e.g. dry working area installation, reinstatement of riverbed, landscaping activities). The ECoW will advise on the suitability and effectiveness of biosecurity measures. If required, the ECoW will have the power to conduct audits of the site at any time and stop works should any breach of the SEMP or Marine Licence conditions be identified. The ECoW will provide advice and recommendations to the contractor.
- Mitigation measures described in the Landscape Section will be followed to reinstate habitat.
- Mitigation measures described in the Water Section will be followed to minimise potential impacts on the water environment.
- Mitigation measures described in the Geology and Soils Section will be followed to minimise potential impacts on habitats.

During the operational phase, the works are not expected to significantly impact surrounding habitats as a result of spread of INNS.

**LANDSCAPE:**

During the construction phase, there will be a temporary visual impact as a result of temporary work set up, and site compound and laydown areas. In addition, vehicles and plant in the vicinity of the works may result in a temporary visual impact to the landscape.

The following mitigation measures will reduce impacts of works on the landscape during the construction and operational phases:

- Throughout all stages of the works, the site must be kept clean and tidy, with materials, equipment, plant, and wastes appropriately stored, minimising the landscape and visual effects.
- Works are to avoid encroaching on land and areas where work is not required or does not have permission to do so. This includes general works, storage of equipment/containers and parking.
- The working area and site compound location are to be appropriately reinstated following works.
- The site is to be left clean and tidy following construction.

Scour repair works will tie into the existing landscape and therefore no long-term landscape impacts are anticipated as a result of the proposed works.

**LAND:**

There will be no loss of land or change in land use as a result of the works. During construction, a site compound will be established and access at a number of locations is likely to be required; any impacts are therefore expected to be temporary. Agreements will be made with landowners on the use of and reinstatement of land not owned by Transport Scotland.

**POPULATION AND HUMAN HEALTH:**

There will be a temporary impact during construction on vehicle travellers, non-motorised road users and the local communities that rely on this key infrastructure route. This will be managed with appropriate traffic management. During construction, there will be a temporary impact from noise and vibration. There are nearby residential receptors and holiday accommodation close to the proposed works. Due to the general openness and

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lack of natural screening in the area, the noise is likely to be audible to residential properties and businesses in the nearby area.

To reduce the potential for impacts, works will be completed outside of the main summer tourist period, no night working is proposed and works will be restricted to extended daylight working hours and, where required, weekend working.

With the implementation of the following mitigation, noise and vibration impacts during the construction phase are not predicted to be significant.

- An appropriate traffic management plan will be designed in accordance with Volume 8, Chapter 4 of the DMRB.
- Prior to construction, consultation will be carried out with local residents and businesses to inform them of the proposals. Residents will be provided with a 24-hour contact number for the BEAR Scotland control room.
- Working hours, notice of night deliveries, and any changes of schedule or procedures must be communicated to local residents throughout the programme.
- The best practice means, as defined in Section 72 of the Control of Pollution Act 1974 and BS5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites, will always be employed to reduce noise to a minimum.
- All construction operatives will be briefed through toolbox talks prior to works commencing using the Being a Good Neighbour toolbox talk template.
- Where possible, inherently quiet plant should be selected for construction works.
- All plant, machinery and tools will be well maintained, including parts relating to noise minimisation.
- All plant, machinery, and vehicles will be switched off when not in use.
- Where ancillary plant such as generators are required, they will be positioned so to cause minimum noise disturbance. Where deemed necessary, acoustic screens will be utilised.
- Movement of plant onto and around the site will have regard to minimising noise and will not be left running if not required for immediate 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.
- If required, acoustic screens may be installed to reduce the amount of noise travelling towards nearby properties.

With the above mitigation measures in place, noise impacts from works are not expected to be significant during the construction phase. No impacts from noise are expected during the operational phase. Traffic dynamics will remain unchanged during the operational phase and will not result in significant impacts caused by noise and vibration.

**WATER:**

Consultation with the SEPA has confirmed that due to works being below MHWS no authorisation under the SEPA Controlled Activity Regulations (CAR) is required. Consultation with Marine Scotland has confirmed that a Marine Licence as well as formal Pre-Application Consultation is required. For a copy of all correspondence see Appendix E.

Any construction work has an inherent risk to surface waters and groundwater. There is potential for impacts on the water environment during construction as a result of activities such as establishment of dry working areas and excavation within those dry working areas, and the presence of fuel and oils from mechanical plant on site. The location of the works on Kiachnish Bridge, which spans River Kiachnish, also represents a risk to the water environment. Loch Linnhe is a sea loch and the bridge spans an area of the River Kiachnish seaward of MHWS. BEAR Scotland has applied to Marine Scotland for a marine licence to allow works to go ahead. All conditions of the marine licence must be adhered to during works. In addition, the in-stream works will be carried out in a dry working area to facilitate the works and reduce the risk of mobilisation of sediments.

Provided the following mitigation measures are adhered to during the works, impacts on the water environment during construction are not anticipated to be significant:

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- All conditions of the Marine Licence are to be complied with, a copy of which will be supplied to the successful contractor.
- A copy of the Marine Licence must also be kept on-site at all times.
- No discharges into any watercourses or drainage systems are permitted.
- All plant and equipment must be regularly inspected for any signs of damage and leaks. A checklist will be present to make sure that the checks have been carried out.
- All on-site activities should operate in accordance with relevant SEPA Pollution Prevention Guidelines (PPGs) and Guidance for Pollution Prevention (GPPs).
- All hazardous material will be stored in accordance with Control of Substance Hazardous to Health (COSHH) data in a designated storage area at least 10m away from any watercourses, drains and / or waterbodies.
- The designated storage area must be on impermeable ground and fully bunded.
- All hazardous material utilised on site is required to undergo assessment under the COSHH Regulations 2002. These assessment(s) will contain a section on environment which highlights any precautions and mitigation requirements.
- All hazardous material will be stored in line with COSHH data within a designated COSHH storage area. Oils and chemicals will be stored in appropriately bunded storage cabinets. The COSHH store will be locked with only appropriate personal having access and an inventory register being maintained.
- Where applicable and practicable, bio-degradable hydraulic fluids and oils should be utilised in machinery.
- Where fuel is stored on site and refuelling activities are undertaken, the following will apply:
  - Only suitably double-skinned fuel bowser(s) or tank(s) in line with General Binding Rules the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) will be utilised on site.
  - The fuel bowser(s) and/or tank(s) must be stored at least 10m away from any watercourses, waterbodies or drains and away from being struck by plant and machinery.
  - All distribution and fuelling nozzles will be fitted with a shut-off valve.
  - All refuelling activities are to be undertaken in a designated site with a drip tray positioned underneath the nozzles when not in use.
  - All fuel containers and nozzles are to be secured, for example with a lock when not in use.
  - All staff undertaking refuelling activities are to be appropriately trained and undertake these activities in line with site refuelling procedures.
- During refuelling of smaller mobile plant, a funnel and drip trays must be used.
- Spill kits must be quickly accessible to capture any spills should they occur.
- The ground / stone around the site of a spill must be removed, double-bagged and taken off site as special contaminated waste.
- Generators and static plant may have the potential to leak fuel and/or other hydrocarbons and must have bunding with a capacity of 110%. If these are not available, then drip trays with a capacity of 110% should be placed beneath the equipment.
- A spillage control procedure will be in place in which all staff are to be trained.
- Suitable spill kits are to be available on site with all staff to be trained in their use.
- All spills must be logged and reported. In the event of any spills into the water environment, all works must stop, and the incident reported to the project manager and the BEAR Scotland Environment Team. SEPA must be informed of any such incident as soon as possible using the SEPA Pollution Hotline.
- Mitigation detailed in Biodiversity Section will be strictly adhered to.
- The Water Pollution – Silt toolbox talk will be delivered to all site personal as part of the site induction prior to works commencing.
- Pollution prevention measures will be installed as required to prevent loss of sediments from the working area into the River Kiachnish and Loch Linnhe.
- Pollution prevention measures will be checked daily and more regularly during period of heavy rainfall.
- An Environmental Clerk of Works (ECow), will attend site regularly during construction. More frequent visits may be required during sensitive site activities (e.g. dry working area installation, reinstatement of riverbed, landscaping activities). The ECow will advise on the suitability and effectiveness of pollution prevention measures. If required, the ECow will have the power to conduct audits of the site at any time and stop works should any breach of the Site Environmental Management Plan (SEMP) or Marine Licence conditions be identified. The ECow will provide advice and recommendations to the contractor.

With the above measures in place, significant impacts on the water environment are not expected during the construction phase. No impacts on the water environment are expected during the operational phase.

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**GEOLOGY AND SOILS:**

There will be excavation of ground to facilitate installation of site compound and to create access points for vehicle movements. The scheme does not lie within a GCRS. There is the potential to disturb surrounding ground during construction.

Provided the following mitigation measures are followed during works, impacts during construction are not anticipated to be significant.

- Excavated soil and rock will be stored in a designated area on level ground where practicable.
- If the soil is to be re-used on site, then it will be wetted (if necessary) during periods of dry weather to prevent drying out.
- Upon completion of the works, any damage to the local landscape (i.e. damage to grass verges) should be reinstated as much as is practicable and as per agreements with the landowner.
- Mitigation measures to prevent contamination of soils through loss of containment are discussed in the Water Section.
- Mitigation measures described in the Biodiversity Section will be followed to reduce potential impacts on soils through the spread of INNS.

The works will not result in significant impacts to geology and soils during the operation phase as the works do not lie within any site designated for geology and soils.

**WASTE, MATERIALS AND USE OF NATURAL RESOURCES:**

During construction, there will be a temporary impact as a result of materials and waste. Topsoil and excavated materials will be re-used as far as possible on site.

Provided the following mitigation measures are followed during works, impacts during construction are not anticipated to be significant.

- The waste hierarchy (Reduce, Reuse, Recycle and Dispose) will be employed throughout the construction works.
- Where possible, waste production will be minimised. For example, the provision of reusable cutlery, crockery and water bottles to all on-site staff is strongly encouraged.
- Bulk material will be delivered to site without packaging where possible.
- Supplies are to be requested to minimise all packaging where possible.
- Care is to be taken to only order the correct quantity of required materials, preventing disposal of unused materials.
- Materials should be reutilised where possible.
- Facilities on site will be provided in a designated area to enable the correct segregation of waste, maximising recycling on site. These are to be clearly marked and labelled.
- Wastes not suitable for recycling will be sent to landfill or special waste treatment facilities, depending on the nature of the waste.
- All waste stored on site will be adequately protected against the elements and vermin.
- All appropriate waste documentation must be present on-site and be available for inspection.
- All wastes and unused materials will be removed from site in a safe manner by a licensed waste carrier upon completion of the works. The appointed waste carrier will have a valid SEPA waste carrier registration, a copy of which will be retained by BEAR Scotland. A copy of the waste transfer is also to be provided to BEAR Scotland as early as practicably feasible and retained.
- If required, an exemption from SEPA will be secured to allow for the reuse of materials.
- During the site induction, all staff are to be informed that littering will not be tolerated. Staff are also encouraged to collect any litter seen on site.
- Where applicable, all temporary signage will be removed from site on completion of the works.
- All hazardous material will be stored in line with Section 10.0: Road Drainage & Water Environment.
- A copy of the duty of care paperwork should be provided and filed appropriately in accordance with the Code of Practice (as made under Section 34 of Environmental Protection Act 1990 as amended).

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- Any contaminated ground as a result of the works should be removed and transferred off site as special waste.
- Any COSHH waste and special waste should be removed from site by a specialised waste carrier. COSHH waste should NOT be mixed with general waste and/or other recyclables.

All waste will be disposed of safely and legally with regard to Duty of Care. No significant impacts are anticipated during the operation phase.

**RISK OF MAJOR ACCIDENTS OR DISASTERS:**

A SEMP has been produced by BEAR Scotland which sets out a framework to reduce the risk of adverse impacts from construction activities on sensitive environmental receptors. It describes a basis for recording environmental risks, commitments, and other environmental constraints and identifies the processes and measures that will be used to manage and control these aspects. In addition, it seeks to ensure compliance with relevant environmental legislation, government policy objectives, and scheme-specific environmental objectives. It also provides a mechanism for monitoring, reviewing, and auditing environmental performance and compliance. The subcontractor will comply with all conditions of the SEMP during works and may be subject to audit throughout the contract.

A Designer's Risk Register will be prepared by BEAR Scotland which addresses potential environmental risks. Activity-specific Method Statements will be produced by the subcontractor and will recognise and highlight the environmental risks and detail how these will be addressed, as well as the contingency plans to be in place to deal with environmental incidents. These must be approved by BEAR Scotland prior to works commencing.

With the above measures in place, the risk of major accidents or disasters as a result of the works is considered to be low.

**CUMULATIVE EFFECTS:**

BEAR Scotland currently have works underway at A82 Croit Anna sea wall and these are expected to finish in June/July 2021. However, standard good practice measures will be in place during these works to avoid environmental impacts. Aside from this on-going scheme there are no known projects currently planned or recently completed that have the potential to contribute to in-combination or cumulative effects on environmental receptors or protected species in the vicinity of the scheme.

The proposed works will improve the condition of the Kiachnish Bridge and protect it from future scour. Consequently, carrying out these works now will reduce the risk that additional major works will be required in the future. This in turn will reduce the amount of work required at this location. Therefore, it is not expected that the works will contribute to long-term significant cumulative effects on the environment in the vicinity of the scheme.

**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
- Population and Human Health
- Water
- Geology and Soils
- Waste Material and use of Natural Resources

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**Extent of EIA work undertaken and details of consultation:**

Consultation with statutory consultees was deemed necessary because there are potential nature conservation parameters which could be affected during the works. Below is a list of consultees and a summary of their main comments can be found in Appendix E.

- NatureScot
- Lochaber District Salmon Fisheries Board
- Scottish Environment Protection Agency
- Marine Scotland

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

This is a relevant project falling within Annex II that:

- Exceeds 1 ha in area.

The project has been subject to screening using the Annex III criteria to determine whether a formal EIA is required under the Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017.

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 total working area is over 1ha;
- The works will be temporary and short-term (less than 1 year duration);
- The works are required to protect the structure against scour;
- The working areas will be contained and 'dry working' will be undertaken to prevent debris or materials from entering the surrounding environment.

*Location of the scheme:*

- Land use will not change as a result of the works;
- The scheme is not located within a densely populated area;
- The scheme is not located within any areas designated for landscape interests;
- The scheme is not located in any sites designated ecological sites;
- The scheme does not lie within any sites of historical, cultural or archaeological significance.
- The scheme does not lie within any sites designated for their geology or soils.

*Characteristics of potential impacts of the scheme:*

- Any potential impacts of the works are expected to be temporary, short-term, and limited to the construction phase;
- Mitigation measures and licences will be in place to ensure no short-term or long-term significant negative impacts on biodiversity;
- Measures will be in place to ensure no short-term or long-term significant negative impact on local residents and road users;
- Measures will be in place to ensure appropriate removal and disposal of waste;
- The SEMP, Designer's Risk Register, and activity-specific method statements (produced by the subcontractor) will include plans to address environmental incidents;
- No impacts on the environment are expected during the operational phase as a result of works;
- Mitigation measures detailed above and in the SEMP will ensure no significant negative impacts on sensitive receptors.

**File references of supporting documentation:**



**Document:**

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

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

PRINT NAME:.....

DATE: .....

Authorisation to publish Notice of Determination

SIGNATURE: ..... (Director, Roads)

PRINT NAME:.....

DATE: .....

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**ENVIRONMENTAL IMPACTS AND PROPOSED MITIGATION: SUMMARY**

Issue	Baseline Conditions	Impact	Mitigation
Air and Climate	<p>There is no air quality monitoring site at the scheme location; the closest monitoring site is in Fort William. Air quality was recorded as Low on 22nd of December 2020. The site does not lie within an AQMA.</p> <p>Local air quality in the area is likely to be reasonable due to its rural location, although the trunk road corridor itself will be affected to some degree by vehicle emissions. There are a few residential properties and businesses within 300m of the scheme extents.</p>	<p>There is potential for temporary impacts on air quality during construction as a result of activities such as excavation, transportation of materials, the presence of construction traffic and vehicles idling on site.</p> <p>Provided mitigation measures are adhered to during the works, impacts on air quality during construction are not anticipated to be significant.</p> <p>The proposed works are not expected to affect air quality during the operation phase as there will be no significant change in traffic levels or dynamics at this location.</p>	<ul style="list-style-type: none"> <li>• A designated laydown area will be established on level ground away from the excavation and works.</li> <li>• All materials will be stored in the laydown area and only moved to site when they are required.</li> <li>• Prolonged storage of debris on site exposed to wind should be avoided. Materials should be wetted down or covered when exposed to wind for lengthy periods of time.</li> <li>• All delivery vehicles carrying material with dust potential will be covered when traveling to or leaving site, preventing the spread of dust beyond the work area.</li> <li>• Material stockpiles will be reduced as much as reasonably practicable by using a 'just in time' delivery system. All material will also be stored on made ground (e.g. within site compound) and 10m away from potential pollution pathways such as drains and watercourses where feasible.</li> <li>• Materials should be removed from site as soon as is practical.</li> <li>• Vehicles removing excavation materials must have their loads effectively covered.</li> <li>• All plant, machinery and vehicles associated with the scheme must be maintained to the appropriate standards and must switch their engines off when not in use.</li> <li>• Where possible, materials are to be sourced locally to reduce greenhouse gas emissions associated with materials movement.</li> <li>• Cement bags will remain closed when not in use to prevent cast off to the surrounding environment.</li> <li>• The movement of dusty material will be minimised by appropriately planning material movements.</li> <li>• Any stockpiled material on site, such as rock, will be monitored daily to ensure no risks of dust</li> </ul>

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Issue	Baseline Conditions	Impact	Mitigation
			<p>emissions exists. Where a risk of dust emissions exists from stockpiles, these are to be dampened down. This is likely to require the use of mobile water bowzers.</p> <ul style="list-style-type: none"> <li>Good housekeeping will be employed throughout the works.</li> </ul>
<b>Cultural Heritage and Material Assets</b>	<p>According to Pastmap, the Category B Listed Building Kiachnish Bridge (Old) over River Kiachnish near Coruanan (LB7071) is located approximately 110m east of the A82 Kiachnish road bridge.</p> <p>There are also a few sites of local cultural heritage interest recorded on Historic Environment Record and/or the Canmore database located within 300m of the scheme. The nearest of these include the A82 road bridge itself and Kiachnish Bridge Crofting Township, encompassing the land area directly north of the river and road bridge.</p>	<p>The working area will be confined to the area surrounding Kiachnish Bridge adjacent to the trunk road boundary. The Kiachnish Bridge (Old) is a Category B Listed Building and lies 110m distant from the trunk road bridge. There are also a few sites of local cultural heritage interest recorded on Historic Environment Record and/or the Canmore database located within 300m of the scheme. The nearest of these include the A82 road bridge itself and Kiachnish Bridge Crofting Township, encompassing the land area directly north of the river and road bridge.</p> <p>Provided mitigation measures are adhered to, potential impacts on cultural heritage during construction are not anticipated to be significant.</p> <p>The works are not anticipated to result in significant impacts on cultural heritage interests during the construction or operational phase.</p>	<ul style="list-style-type: none"> <li>If there are any unexpected archaeological finds, works will stop temporarily in the vicinity, the area will be cordoned off and a member of the BEAR Environment team will be contacted for advice.</li> <li>Laydown area will be sensitively located to avoid areas of cultural heritage interest including the Category B Listed Kiachnish Bridge (Old).</li> <li>There will be no storage of plant, materials or equipment against and buildings, bridges, walls or fences.</li> </ul>
<b>Biodiversity Terrestrial Mammal (excluding bats)</b>	<p>[Redacted]</p> <p>No other signs of protected species were recorded on site although pine marten and red</p>	<p>[Redacted]</p> <p>Therefore, a derogation licence is not required at this time to allow works to proceed. [Redacted]</p> <p>No other signs of protected species were recorded on site although pine marten and red squirrel may be present commuting or foraging in the wider area.</p>	<ul style="list-style-type: none"> <li>An Environmental Clerk of Works (ECoW), will attend site regularly during construction. More frequent visits may be required during sensitive site activities (e.g. dry working area installation, reinstatement of riverbed, landscaping activities). The ECoW will advise on the suitability and effectiveness of pollution prevention measures. If required, the ECoW will have the power to conduct audits of the site at any time and stop works should any breach of the Site Environmental Management Plan (SEMP) or Marine Licence conditions be identified. The ECoW will provide advice and recommendations to the contractor.</li> </ul>

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Issue	Baseline Conditions	Impact	Mitigation
	<p>squirrel may be present commuting or foraging in the wider area.</p>	<p>Works will primarily be carried out during daylight hours when otter tend to be less active. [Redacted]</p> <p>During the operational phase, impacts on terrestrial mammals are considered to be non-significant due to the lack of suitable habitat within the vicinity of the works.</p>	<ul style="list-style-type: none"> <li>• Site personnel are instructed not to approach or touch any animals seen on site.</li> <li>• Site personnel should remain vigilant for the presence of protected species including otter, pine marten, red squirrel, and nesting birds over the works period.</li> <li>• Measures to be implemented to protect the aquatic environment are detailed in Section 10: Road Drainage and Water Environment.</li> <li>• Tracking of machinery through watercourses will not be permitted, except where it is essential to install temporary works to achieve dry working areas.</li> <li>• No discharges into any watercourses or drainage systems are permitted.</li> <li>• All construction operatives are to be briefed through toolbox talks prior to works commencing using the toolbox talks for otter, pine marten and red squirrel. The talks are to specifically cover ecology, field signs of protected species, and legislation. Briefings are to be clear and unambiguous, with all staff informed to stop works where a concern is raised. Works may not commence until advice from an appropriately qualified ecologist is sought and appropriate mitigation is in place, where required.</li> <li>• Where protected mammals are encountered or move within 50m of the active works, works will cease until the animal(s) move further away than 50m from the construction site or until the contractor's ECoW can provide advice.</li> <li>• All material, machinery and equipment will be subject to checks for resting mammals daily prior to any works commencing to prevent entrapment or injury of any mammals.</li> <li>• A 'soft start' will be implemented on site each day. This will involve switching on vehicles and checking under/around vehicles and the immediate works area for mammals prior to works commencing to ensure none are present and that there is a gradual increase in noise.</li> </ul>

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Issue	Baseline Conditions	Impact	Mitigation
			<ul style="list-style-type: none"> <li>Any excavations, exposed pipes/drains, or areas where an animal could become trapped (e.g. storage containers) will be covered over when not in use, at the end of each shift, and following completion of the works to avoid animals falling in and becoming trapped. Where this is not possible excavations should be suitably ramped to allow animals to escape.</li> <li>If fencing is utilised at any point during the works, a gap of 200mm from ground level must be provided, allowing free passage for mammals and preventing entrapment.</li> </ul>
<b>Biodiversity Birds</b>	<p>During the 2020 site visit, pigeons were seen roosting on the bearing shelf about both abutments. It is possible that they may also nest on the bridge. A dipper was seen foraging near the bridge during the site visit. There were trees and areas of scrub and long grass surrounding the bridge which provide habitat suitable for nesting birds during the breeding bird season (generally considered to be between March to August inclusive).</p>	<p>There are areas of scrub and trees within the scheme extents, as well as the bridge itself, which are considered to provide some habitat suitable for nesting birds. Any vegetation clearance to allow for installation of temporary works and site compound should be undertaken before March in advance of the works starting on site to make these areas unsuitable for nesting birds. Where this is not possible, the ECoW will carry out breeding bird checks within 24 hours prior to carrying out any vegetation clearance. The bird breeding season is generally considered to run from March to August, inclusive. The works will predominantly be outside of the main breeding period for birds.</p> <p>Providing the mitigation is adhered to during the works, significant impacts are not anticipated during the construction phase.</p> <p>mitigation measures in place, no significant negative impacts on breeding birds are expected as a result of works.</p>	<ul style="list-style-type: none"> <li>A toolbox talk on breeding birds will be provided to all site staff prior to works commencing.</li> <li>If vegetation clearance is required, it should take place outwith the breeding bird season.</li> <li>If vegetation clearance is required during the breeding bird season, a check for nesting birds should be carried out within 24 hours prior to clearance if appropriate (depending on the amount and nature of vegetation to be removed and timing within the breeding bird season).</li> <li>If a nesting bird is observed on site during works, all works within 30m must stop until the ECoW or BEAR Scotland NW Environment Team can provide advice.</li> </ul>
<b>Biodiversity Bats</b>	<p>Trees within 30m of the bridge, temporary works area, and site compound did not have features suitable for roosting bats. Most of the trees were single stem alder which lined the watercourse. The bridge itself is a three-span concrete structure with pre-cast elements. It</p>	<p>The bridge was considered to have negligible hibernation potential due to lack of suitable roost features for hibernating bats and the open and exposed nature of the bridge; therefore, no winter hibernation inspections (WHI) are required. Two summer bat activity surveys of the bridge will be</p>	<ul style="list-style-type: none"> <li>If a bat licence is required, all conditions of any bat derogation licence issued by NatureScot must be adhered to during works. Any breach of the licence conditions will result in an environmental offence and persons responsible may face fines and/or prosecution.</li> </ul>

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Issue	Baseline Conditions	Impact	Mitigation
	<p>was considered to have negligible hibernation potential due to the open and exposed nature of the bridge and therefore no winter hibernation inspections (WHI) are required. The bridge was considered to provide low to moderate potential as a summer roost and therefore between one and two summer activity surveys will be required during the core active bat period (May to September inclusive). Habitats surrounding the bridge would provide foraging opportunities for bats along the watercourse and riparian woodland. Woodland surrounding the bridge was limited but became more dominant with more mature tree specimens upstream.</p>	<p>required to identify whether any bat roosts are present in the bridge. If any bat roosts are identified, a bat derogation licence issued by NatureScot will be applied for and secured prior to any works taking place. If no bats are found, works can proceed as planned with all staff advised to remain vigilant for bats throughout the works.</p> <p>The mitigation measures will ensure no significant negative impacts on the favourable conservation status or long- or short-term welfare of local bat populations.</p> <p>With appropriate mitigation measures and licences in place, it is expected that there will be no significant negative impacts on the favourable conservation status or long- or short-term welfare of local bat populations as a result of works.</p>	<ul style="list-style-type: none"> <li>• Site staff must remain vigilant for bats during works. If bats are found, works will stop and the ECoW will be contacted immediately. Works will not recommence until advised by the ECoW.</li> <li>• Artificial lighting used during hours of darkness should be restricted to the immediate working area and should be directed away from areas of suitable habitat (e.g. watercourses, woodland, shrubs) as far as is safe and reasonably practicable.</li> <li>• If a bat (or bats) are observed flying in the vicinity of works during the day, works are to stop and the ECoW is to be consulted. Works will not recommence until advised by the ECoW.</li> </ul>
<p><b>Biodiversity Fish</b></p>	<p>The Kiachnish bridge spans the River Kiachnish near where it enters Loch Linnhe North. The River Kiachnish was classified by SEPA in 2018 as having an overall status of 'Moderate'. Overall ecology of the river and hydromorphology is recorded as moderate with hydrology recorded as poor, which is likely due to a recently installed hydroelectric scheme. Loch Linnhe North is a sea loch that was classified by SEPA in 2018 as having an overall status of 'Good'.</p> <p>The Kiachnish River is tidal within the scheme extents, with the tidal limit approximately 100m upstream by the old masonry arch bridge. Salmonids spawn upstream in freshwater; therefore, there will be no salmonid spawning within the footprints of the scheme. However, both salmon and sea trout will migrate past the Kiachnish Bridge to travel to spawning ground further upstream.</p>	<p>The Kiachnish River is tidal within the scheme extents, with the tidal limit approximately 100m upstream near the old masonry arch bridge. Therefore, there will be no salmonid spawning within the footprints of the scheme; however, both salmon and sea trout will migrate past the Kiachnish Bridge to travel to spawning ground further upstream. The Lochaber District Salmon Fisheries Board (LDSFB) have advised that in the River Kiachnish adult salmonids will run upstream between June and October to spawning habitat with the smolt run (juveniles moving downstream) in April and May.</p> <p>Consultation with the LDSFB (Appendix E) highlighted the importance of ensuring free and easy access for migratory fish, both upstream and downstream during the works. Due to the expected design of the temporary works, this has not been possible to achieve. During works to the central span, the watercourse will need to be flumed through pipes for a period of approximately 4-6 weeks. The LDSFB have advised that any works which will prevent migratory access should be completed between mid-</p>	<ul style="list-style-type: none"> <li>• Mitigation measures described in the Water Section will be followed to minimise potential impacts on the water environment.</li> <li>• Pollution prevention and sediment containment measures will be in place for the duration of construction.</li> <li>• Works in span 2, when the watercourse will need to be flumed, will be carried out between mid-November to mid-March. At all other time free migratory passage to fish must be maintained.</li> <li>• The works will be carried out in a dry working area.</li> <li>• Lighting at night on site should also be kept to a minimum as this can deter migratory fish from travelling. This is of particular importance between March and October when the fish are running</li> <li>• Tracking of machinery through the watercourses will not be permitted, except where it is essential to install temporary works to achieve dry working areas.</li> <li>• No discharges into any watercourses or drainage systems are permitted.</li> </ul>

**Document:**

Issue	Baseline Conditions	Impact	Mitigation
		<p>November and mid-March to avoid the adult fish run from June to October and the smolt run in April/May. They advised that lighting and noise which can disturb fish is primarily a problem when they are running and therefore pose less risk to fish between mid-November to mid-March. The LDSFB also advised that while measures should always be in place to prevent pollution and transport of sediments downstream, the risk of sediment transport impacting fish is reduced in this case due to the scheme's location in transitional waters, which do not support spawning or juvenile habitat. Therefore, the risk of smothering highly sensitive eggs or juvenile fish as a result of sediment transfer from in-stream works is considered to be negligible.</p> <p>There is potential for temporary, indirect impacts on fish during construction due to disturbance as a result of lighting and activities causing vibrations near the watercourse and temporary loss of habitat as a result of construction works. With the following mitigation in place, impacts are not anticipated to be significant.</p>	<ul style="list-style-type: none"> <li>An Environmental Clerk of Works (ECoW), will attend site regularly during construction. More frequent visits may be required during sensitive site activities (e.g. dry working area installation, reinstatement of riverbed, landscaping activities). The ECoW will advise on the suitability and effectiveness of pollution prevention measures. If required, the ECoW will have the power to conduct audits of the site at any time and stop works should any breach of the SEMP or Marine Licence conditions be identified. The ECoW will provide advice and recommendations to the contractor.</li> </ul>
<b>Biodiversity INNS</b>	<p>Both Japanese knotweed and Rhododendron were recorded on site. A stand of Japanese knotweed was found on the downstream left-hand bank which was approximately 8m by 10m. This area looked like it had undergone treatment by the local estate as materials had been burned here on top of the stand of knotweed in an attempt to control its spread. Further Japanese knotweed was identified on the downstream right-hand bank outside of the working area. Rhododendron was identified on the right-hand bank both upstream of the bridge and at the top of the bank downstream of the bridge.</p>	<p>Both Japanese knotweed and Rhododendron were recorded on site. A stand of Japanese knotweed was found on the downstream left-hand bank in an area that may need to be accessed to facilitate the works.</p> <p>If vegetation or soil containing INNS must be removed, it should be disposed of appropriately at a licenced facility. Biosecurity measures should be in place for all site staff and equipment/vehicles. Agreement on the location of the site compound and the details of the biosecurity measures required on site will need to be made in advance of works starting.</p> <p>Provided that mitigation measures are followed during construction, impacts on habitats as a result of spread of INNS are not expected.</p>	<ul style="list-style-type: none"> <li>Construction methods will take place sensitively to reduce as far as possible encroachment of plant and machinery on habitats outside of the work footprint.</li> <li>Material storage areas and site compound will be sited sensitively to avoid requirement for further land take. Where practical, this will be in existing hardstanding areas on level ground.</li> <li>An ECoW will attend site regularly during construction. More frequent visits may be required during sensitive site activities (e.g. dry working area installation, reinstatement of riverbed, landscaping activities). The ECoW will advise on the suitability and effectiveness of biosecurity measures. If required, the ECoW will have the power to conduct audits of the site at any time and stop works should any breach of</li> </ul>

**Document:**

Issue	Baseline Conditions	Impact	Mitigation
		During the operational phase, the works are not expected to significantly impact surrounding habitats as a result of spread of INNS.	<p>the SEMP or Marine Licence conditions be identified. The ECoW will provide advice and recommendations to the contractor.</p> <ul style="list-style-type: none"> <li>• Mitigation measures described in the Landscape Section will be followed to reinstate habitat.</li> <li>• Mitigation measures described in the Water Section will be followed to minimise potential impacts on the water environment.</li> <li>• Mitigation measures described in the Geology and Soils Section will be followed to minimise potential impacts on habitats.</li> </ul>
<b>Landscape</b>	The immediate surrounding landscape comprises open views across Loch Linnhe to the west. The landscape in the wider area is dominated by woodland with some agriculturally improved grassland and amenity grassland associated with residential properties.	<p>During the construction phase, there will be a temporary visual impact as a result of temporary work set up, and site compound and laydown areas. In addition, vehicles and plant in the vicinity of the works may result in a temporary visual impact to the landscape.</p> <p>Mitigation measures will reduce impacts of works on the landscape during the construction and operational phases. Scour repair works will tie into the existing landscape and therefore no long-term landscape impacts are anticipated as a result of the proposed works.</p>	<ul style="list-style-type: none"> <li>• Throughout all stages of the works, the site must be kept clean and tidy, with materials, equipment, plant, and wastes appropriately stored, minimising the landscape and visual effects.</li> <li>• Works are to avoid encroaching on land and areas where work is not required or does not have permission to do so. This includes general works, storage of equipment/containers and parking.</li> <li>• The working area and site compound location are to be appropriately reinstated following works.</li> <li>• The site is to be left clean and tidy following construction.</li> </ul>
<b>Land</b>	The surrounding area is dominated by woodland with Loch Linnhe to the northwest. The scheme is located south of Fort William, which is a main urban centre on the west coast of Scotland. It is popular with tourists and outdoor recreationists during the summer months.	There will be no loss of land or change in land use as a result of the works. During construction, a site compound will be established and access at a number of locations is likely to be required; any impacts are therefore expected to be temporary. Agreements will be made with landowners on the use of and reinstatement of land not owned by Transport Scotland.	N/A
<b>Population and Human Health</b>	<p>The scheme passes through a rural area but there are some residential properties within 300m of the scheme extents. These are as detailed in the Air and Climate section.</p> <p>There are no National Cycle Network (NCN) cycle routes located within 300m of the</p>	There will be a temporary impact during construction on vehicle travellers, non-motorised road users and the local communities that rely on this key infrastructure route. This will be managed with appropriate traffic management. During construction, there will be a temporary impact from noise and vibration. There are nearby residential receptors and	<ul style="list-style-type: none"> <li>• An appropriate traffic management plan will be designed in accordance with Volume 8, Chapter 4 of the DMRB.</li> <li>• Prior to construction, consultation will be carried out with local residents and businesses to inform them of the proposals. Residents will be provided</li> </ul>



**Document:**

Issue	Baseline Conditions	Impact	Mitigation
	<p>scheme, although cyclists may still use the A82 carriageway. Likewise, there are no walking routes listed on WalkHighlands located within 300m of the scheme.</p> <p>There is a paved footpath along the northbound carriageway of the A82 that runs from A82 Kiachnish Bridge north into Fort William.</p>	<p>holiday accommodation close to the proposed works. Due to the general openness and lack of natural screening in the area, the noise is likely to be audible to residential properties and businesses in the nearby area.</p> <p>To reduce the potential for impacts, works will be completed outside of the main summer tourist period, no night working is proposed and works will be restricted to extended daylight working hours and, where required, weekend working.</p> <p>With the implementation of mitigation, noise and vibration impacts during the construction phase are not predicted to be significant. No impacts from noise are expected during the operational phase. Traffic dynamics will remain unchanged during the operational phase and will not result in significant impacts caused by noise and vibration.</p>	<p>with a 24-hour contact number for the BEAR Scotland control room.</p> <ul style="list-style-type: none"> <li>Working hours, notice of night deliveries, and any changes of schedule or procedures must be communicated to local residents throughout the programme.</li> <li>The best practice means, as defined in Section 72 of the Control of Pollution Act 1974 and BS5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites, will always be employed to reduce noise to a minimum.</li> <li>All construction operatives will be briefed through toolbox talks prior to works commencing using the Being a Good Neighbour toolbox talk template.</li> <li>Where possible, inherently quiet plant should be selected for construction works.</li> <li>All plant, machinery and tools will be well maintained, including parts relating to noise minimisation.</li> <li>All plant, machinery, and vehicles will be switched off when not in use.</li> <li>Where ancillary plant such as generators are required, they will be positioned so to cause minimum noise disturbance. Where deemed necessary, acoustic screens will be utilised.</li> <li>Movement of plant onto and around the site will have regard to minimising noise and will not be left running if not required for immediate use.</li> <li>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.</li> <li>If required, acoustic screens may be installed to reduce the amount of noise travelling towards nearby properties.</li> </ul>
<b>Water</b>	The bridge spans the River Kiachnish near where it enters Loch Linnhe North. The River Kiachnish was classified by SEPA in 2018 as	Consultation with the SEPA has confirmed that due to works being below MHWS no authorisation under the SEPA Controlled Activity Regulations (CAR) is	<ul style="list-style-type: none"> <li>All conditions of the Marine Licence are to be complied with, a copy of which will be supplied to the successful contractor.</li> </ul>

**Document:**

Issue	Baseline Conditions	Impact	Mitigation
	<p>having an overall status of 'Moderate'. Loch Linnhe North is a sea loch that was classified by SEPA in 2018 as having an overall status of 'Good'. Due to the location of works in an area that falls within the boundary of Loch Linnhe North below MHWS, a Marine Licence from Marine Scotland has been applied for.</p> <p>The scheme falls within the Fort William groundwater body, which was classified by SEPA in 2018 as having 'Good' overall condition. It is also a Drinking Water Protected Area (Ground).</p>	<p>required. Consultation with Marine Scotland has confirmed that a Marine Licence as well as formal Pre-Application Consultation is required.</p> <p>Any construction work has an inherent risk to surface waters and groundwater. There is potential for impacts on the water environment during construction as a result of activities such as establishment of dry working areas and excavation within those dry working areas, and the presence of fuel and oils from mechanical plant on site. The location of the works on Kiachnish Bridge, which spans River Kiachnish, also represents a risk to the water environment. Loch Linnhe is a sea loch and the bridge spans an area of the River Kiachnish seaward of MHWS. BEAR Scotland has applied to Marine Scotland for a marine licence to allow works to go ahead. All conditions of the marine licence must be adhered to during works. In addition, the in-stream works will be carried out in a dry working area to facilitate the works and reduce the risk of mobilisation of sediments.</p> <p>Provided mitigation measures are adhered to during the works, impacts on the water environment during construction are not anticipated to be significant. No impacts on the water environment are expected during the operational phase.</p>	<ul style="list-style-type: none"> <li>• A copy of the Marine Licence must also be kept on-site at all times.</li> <li>• No discharges into any watercourses or drainage systems are permitted.</li> <li>• All plant and equipment must be regularly inspected for any signs of damage and leaks. A checklist will be present to make sure that the checks have been carried out.</li> <li>• All on-site activities should operate in accordance with relevant SEPA Pollution Prevention Guidelines (PPGs) and Guidance for Pollution Prevention (GPPs).</li> <li>• All hazardous material will be stored in accordance with Control of Substance Hazardous to Health (COSHH) data in a designated storage area at least 10m away from any watercourses, drains and / or waterbodies.</li> <li>• The designated storage area must be on impermeable ground and fully bunded.</li> <li>• All hazardous material utilised on site is required to undergo assessment under the COSHH Regulations 2002. These assessment(s) will contain a section on environment which highlights any precautions and mitigation requirements.</li> <li>• All hazardous material will be stored in line with COSHH data within a designated COSHH storage area. Oils and chemicals will be stored in appropriately bunded storage cabinets. The COSHH store will be locked with only appropriate personal having access and an inventory register being maintained.</li> <li>• Where applicable and practicable, bio-degradable hydraulic fluids and oils should be utilised in machinery.</li> <li>• Where fuel is stored on site and refuelling activities are undertaken, the following will apply: <ul style="list-style-type: none"> <li>– Only suitably double-skinned fuel bowser(s) or tank(s) in line with General Binding Rules the Water Environment (Controlled Activities)</li> </ul> </li> </ul>

**Document:**

Issue	Baseline Conditions	Impact	Mitigation
			<p>(Scotland) Regulations 2011 (as amended) will be utilised on site.</p> <ul style="list-style-type: none"> <li>- The fuel bowser(s) and/or tank(s) must be stored at least 10m away from any watercourses, waterbodies or drains and away from being struck by plant and machinery.</li> <li>- All distribution and fuelling nozzles will be fitted with a shut-off valve.</li> <li>- All refuelling activities are to be undertaken in a designated site with a drip tray positioned underneath the nozzles when not in use.</li> <li>- All fuel containers and nozzles are to be secured, for example with a lock when not in use.</li> <li>- All staff undertaking refuelling activities are to be appropriately trained and undertake these activities in line with site refuelling procedures.</li> </ul> <ul style="list-style-type: none"> <li>• During refuelling of smaller mobile plant, a funnel and drip trays must be used.</li> <li>• Spill kits must be quickly accessible to capture any spills should they occur.</li> <li>• The ground / stone around the site of a spill must be removed, double-bagged and taken off site as special contaminated waste.</li> <li>• Generators and static plant may have the potential to leak fuel and/or other hydrocarbons and must have bunding with a capacity of 110%. If these are not available, then drip trays with a capacity of 110% should be placed beneath the equipment.</li> <li>• A spillage control procedure will be in place in which all staff are to be trained.</li> <li>• Suitable spill kits are to be available on site with all staff to be trained in their use.</li> </ul>

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Issue	Baseline Conditions	Impact	Mitigation
			<ul style="list-style-type: none"> <li>All spills must be logged and reported. In the event of any spills into the water environment, all works must stop, and the incident reported to the project manager and the BEAR Scotland Environment Team. SEPA must be informed of any such incident as soon as possible using the SEPA Pollution Hotline.</li> <li>Mitigation detailed in Biodiversity Section will be strictly adhered to.</li> <li>The Water Pollution – Silt toolbox talk will be delivered to all site personal as part of the site induction prior to works commencing.</li> <li>Pollution prevention measures will be installed as required to prevent loss of sediments from the working area into the River Kiachnish and Loch Linnhe.</li> <li>Pollution prevention measures will be checked daily and more regularly during period of heavy rainfall.</li> <li>An ECoW will attend site regularly during construction. More frequent visits may be required during sensitive site activities (e.g. dry working area installation, reinstatement of riverbed, landscaping activities). The ECoW will advise on the suitability and effectiveness of pollution prevention measures. If required, the ECoW will have the power to conduct audits of the site at any time and stop works should any breach of the Site Environmental Management Plan (SEMP) or Marine Licence conditions be identified. The ECoW will provide advice and recommendations to the contractor.</li> </ul>
<b>Geology and Soils</b>	<p>The scheme does not lie within a Geological Conservation Review Site (GCRS).</p> <p>Bedrock within the scheme extent is comprised of Fort William Formation – Micaceous Psammite and Semipelite, which is a metamorphic bedrock.</p>	<p>There will be excavation of ground to facilitate installation of site compound and to create access points for vehicle movements. The scheme does not lie within a GCRS. There is the potential to disturb surrounding ground during construction.</p> <p>Provided mitigation measures are followed during works, impacts during construction are not anticipated to be significant. The works will not result</p>	<ul style="list-style-type: none"> <li>Excavated soil and rock will be stored in a designated area on level ground where practicable.</li> <li>If the soil is to be re-used on site, then it will be wetted (if necessary) during periods of dry weather to prevent drying out.</li> </ul>

**Document:**

Issue	Baseline Conditions	Impact	Mitigation
	<p>Superficial deposits within the scheme extent are recorded as Raised Beach Deposits, 1 – Gravel, Sand and Silt, which are sedimentary deposits.</p> <p>Soils within the scheme extent are recorded as peaty gleys.</p>	<p>in significant impacts to geology and soils during the operation phase as the works do not lie within any site designated for geology and soils.</p>	<ul style="list-style-type: none"> <li>• Upon completion of the works, any damage to the local landscape (i.e. damage to grass verges) should be reinstated as much as is practicable and as per agreements with the landowner.</li> <li>• Mitigation measures to prevent contamination of soils through loss of containment are discussed in the Water Section.</li> <li>• Mitigation measures described in the Biodiversity Section will be followed to reduce potential impacts on soils through the spread of INNS.</li> </ul>
<p><b>Waste, Materials and use of Natural Resources</b></p>	<p>Waste materials will comprise riverbed and soil excavated to install rip-rap rock. The final destination for these materials is yet to be confirmed. Where the riverbed material is considered to be suitable, it will be re-used to reinstate the riverbed. All relevant SEPA exemptions and consents will be in place to ensure the material is suitable for its given purpose and that all appropriate regulatory processes have been followed.</p>	<p>During construction, there will be a temporary impact as a result of materials and waste. Topsoil and excavated materials will be re-used as far as possible on site.</p> <p>Provided mitigation measures are followed during works, impacts during construction are not anticipated to be significant. All waste will be disposed of safely and legally with regard to Duty of Care. No significant impacts are anticipated during the operation phase.</p>	<ul style="list-style-type: none"> <li>• The waste hierarchy (Reduce, Reuse, Recycle and Dispose) will be employed throughout the construction works.</li> <li>• Where possible, waste production will be minimised. For example, the provision of reusable cutlery, crockery and water bottles to all on-site staff is strongly encouraged.</li> <li>• Bulk material will be delivered to site without packaging where possible.</li> <li>• Supplies are to be requested to minimise all packaging where possible.</li> <li>• Care is to be taken to only order the correct quantity of required materials, preventing disposal of unused materials.</li> <li>• Materials should be reutilised where possible.</li> <li>• Facilities on site will be provided in a designated area to enable the correct segregation of waste, maximising recycling on site. These are to be clearly marked and labelled.</li> <li>• Wastes not suitable for recycling will be sent to landfill or special waste treatment facilities, depending on the nature of the waste.</li> <li>• All waste stored on site will be adequately protected against the elements and vermin.</li> <li>• All appropriate waste documentation must be present on-site and be available for inspection.</li> <li>• All wastes and unused materials will be removed from site in a safe manner by a licensed waste</li> </ul>

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Issue	Baseline Conditions	Impact	Mitigation
			<p>carrier upon completion of the works. The appointed waste carrier will have a valid SEPA waste carrier registration, a copy of which will be retained by BEAR Scotland. A copy of the waste transfer is also to be provided to BEAR Scotland as early as practicably feasible and retained.</p> <ul style="list-style-type: none"> <li>• If required, an exemption from SEPA will be secured to allow for the reuse of materials.</li> <li>• During the site induction, all staff are to be informed that littering will not be tolerated. Staff are also encouraged to collect any litter seen on site.</li> <li>• Where applicable, all temporary signage will be removed from site on completion of the works.</li> <li>• All hazardous material will be stored in line with Section 10.0: Road Drainage &amp; Water Environment.</li> <li>• A copy of the duty of care paperwork should be provided and filed appropriately in accordance with the Code of Practice (as made under Section 34 of Environmental Protection Act 1990 as amended).</li> <li>• Any contaminated ground as a result of the works should be removed and transferred off site as special waste.</li> <li>• Any COSHH waste and special waste should be removed from site by a specialised waste carrier. COSHH waste should NOT be mixed with general waste and/or other recyclables.</li> </ul>
<p><b>Risk of Major Accidents or Disasters</b></p>	<p>A SEMP has been produced by BEAR Scotland which sets out a framework to reduce the risk of adverse impacts from construction activities on sensitive environmental receptors. It describes a basis for recording environmental risks, commitments, and other environmental constraints and identifies the processes and measures that will be used to manage and control these aspects. In addition, it seeks to ensure compliance with relevant environmental legislation, government policy objectives, and scheme-specific environmental objectives. It also provides a mechanism for monitoring, reviewing, and auditing environmental performance and compliance. The subcontractor will comply with all conditions of the SEMP during works and may be subject to audit throughout the contract.</p> <p>A Designer's Risk Register will be prepared by BEAR Scotland which addresses potential environmental risks. Activity-specific Method Statements will be produced by the subcontractor and will recognise and highlight the environmental risks and detail how these will be addressed, as well as the contingency plans to be in place to deal with environmental incidents. These must be approved by BEAR Scotland prior to works commencing.</p> <p>With the above measures in place, the risk of major accidents or disasters as a result of the works is considered to be low.</p>		

**Document:**

Issue	Baseline Conditions	Impact	Mitigation
<b>Cumulative Effects</b>	<p>BEAR Scotland currently have works underway at A82 Croit Anna sea wall and these are expected to finish in June/July 2021. However, standard good practice measures will be in place during these works to avoid environmental impacts. Aside from this on-going scheme there are no known projects currently planned or recently completed that have the potential to contribute to in-combination or cumulative effects on environmental receptors or protected species in the vicinity of the scheme.</p> <p>The proposed works will improve the condition of the Kiachnish Bridge and protect it from future scour. Consequently, carrying out these works now will reduce the risk that additional major works will be required in the future. This in turn will reduce the amount of work required at this location. Therefore, it is not expected that the works will contribute to long-term significant cumulative effects on the environment in the vicinity of the scheme.</p>		



# Transport Scotland Trunk Road and Bus Operations

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## APPENDIX A: SCHEME LOCATION AND EXTENTS

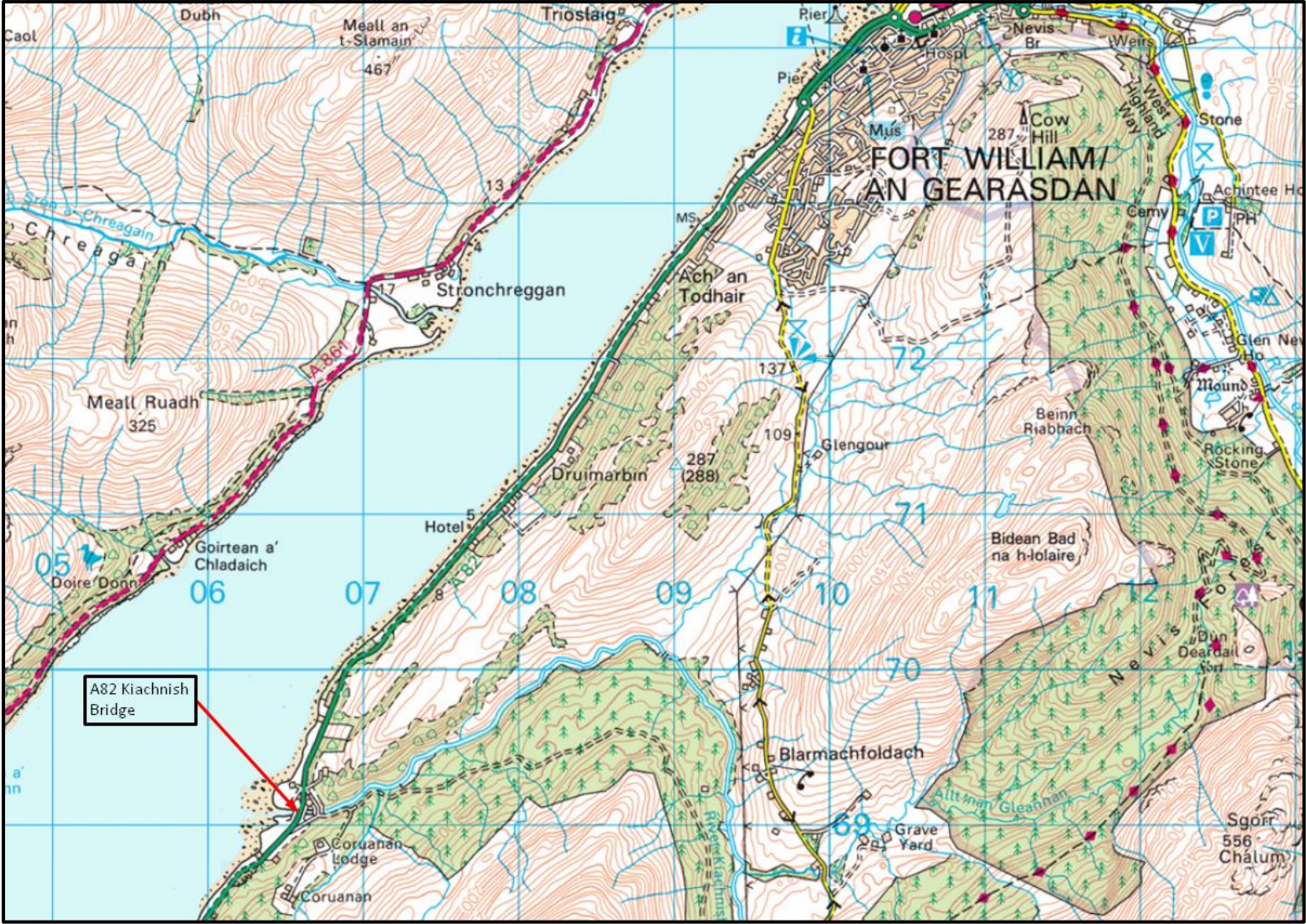


Figure A1: Location of scheme



# Transport Scotland Trunk Road and Bus Operations

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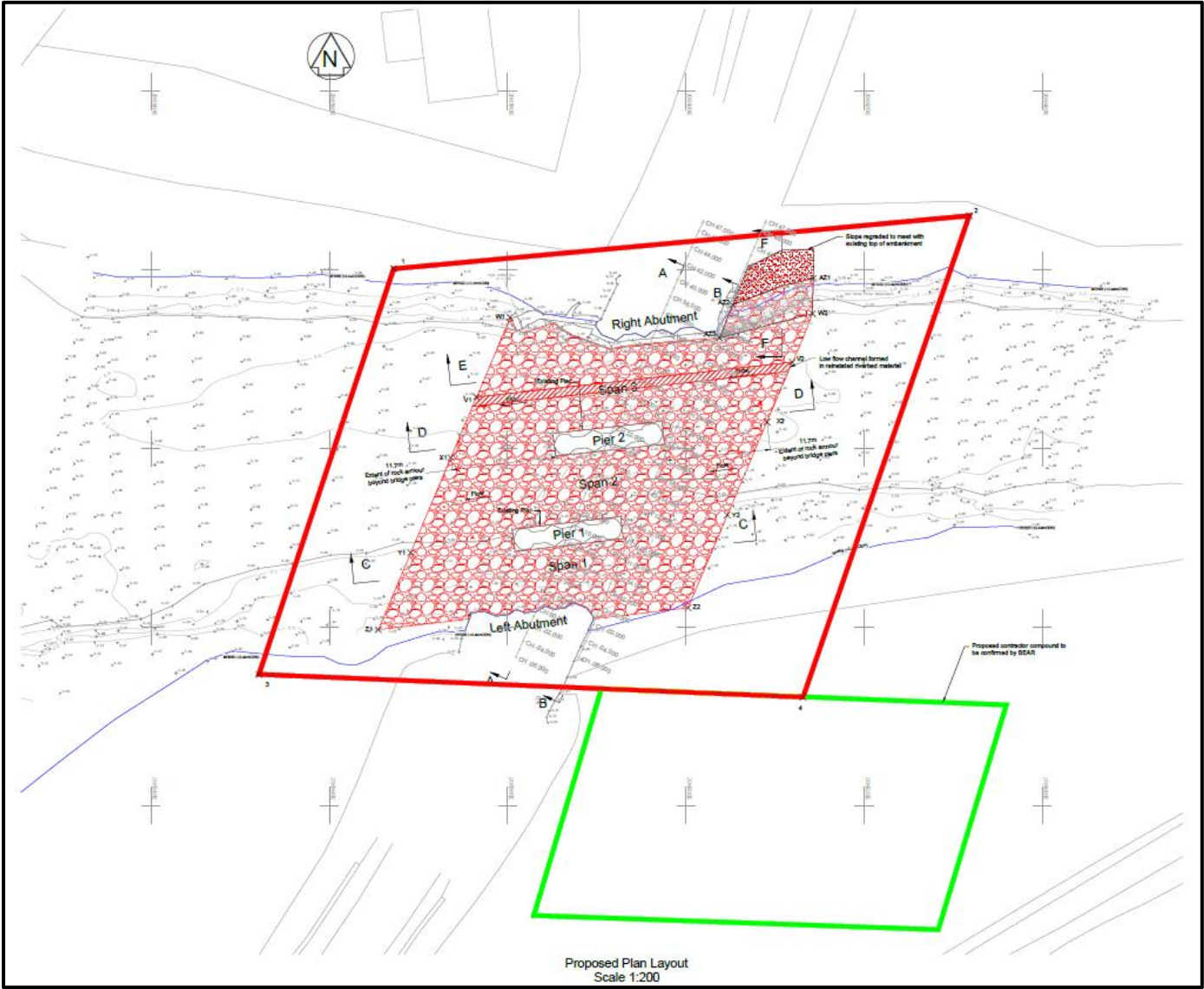


Figure A2: Scheme overview showing extent of works

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### APPENDIX B: AIR QUALITY SENSITIVE RECEPTORS

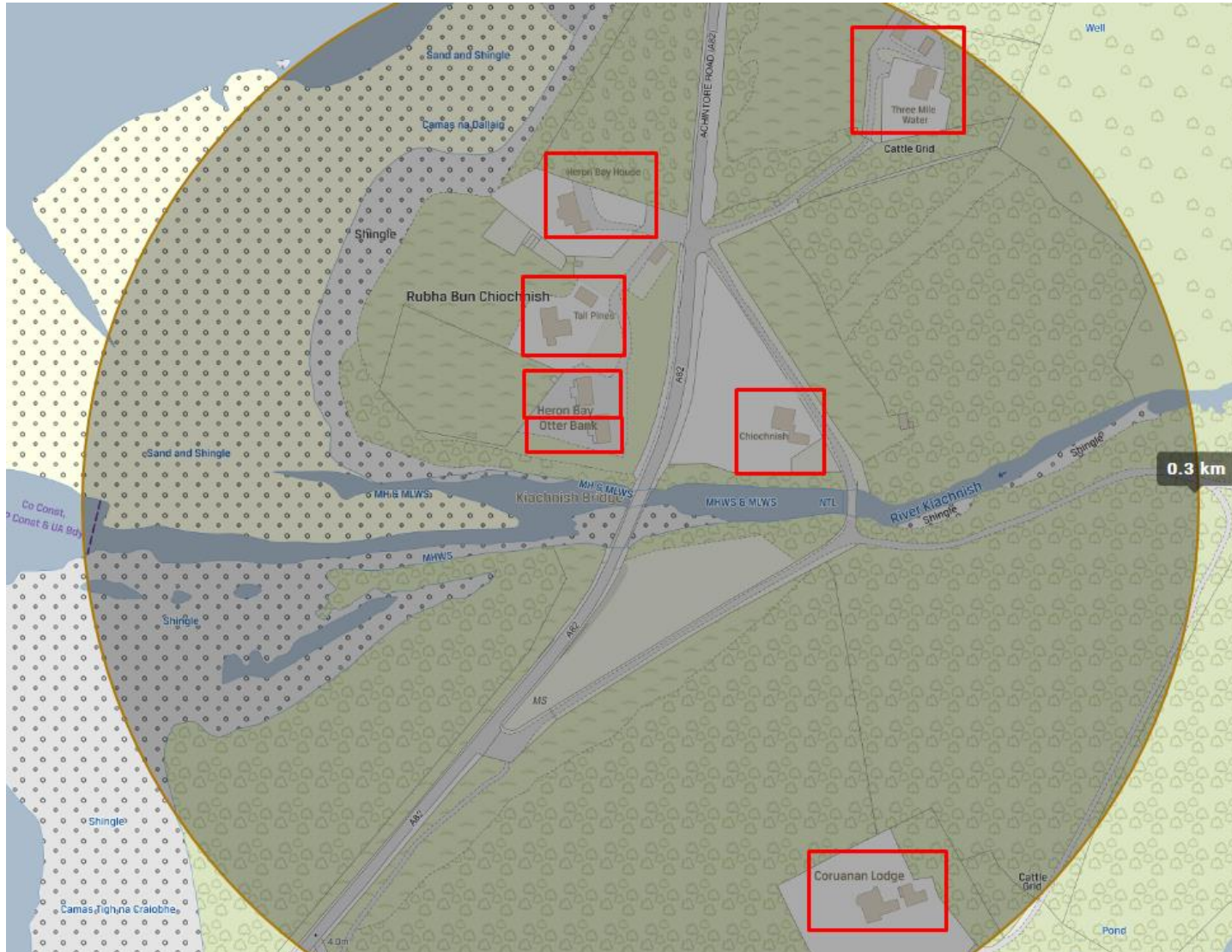


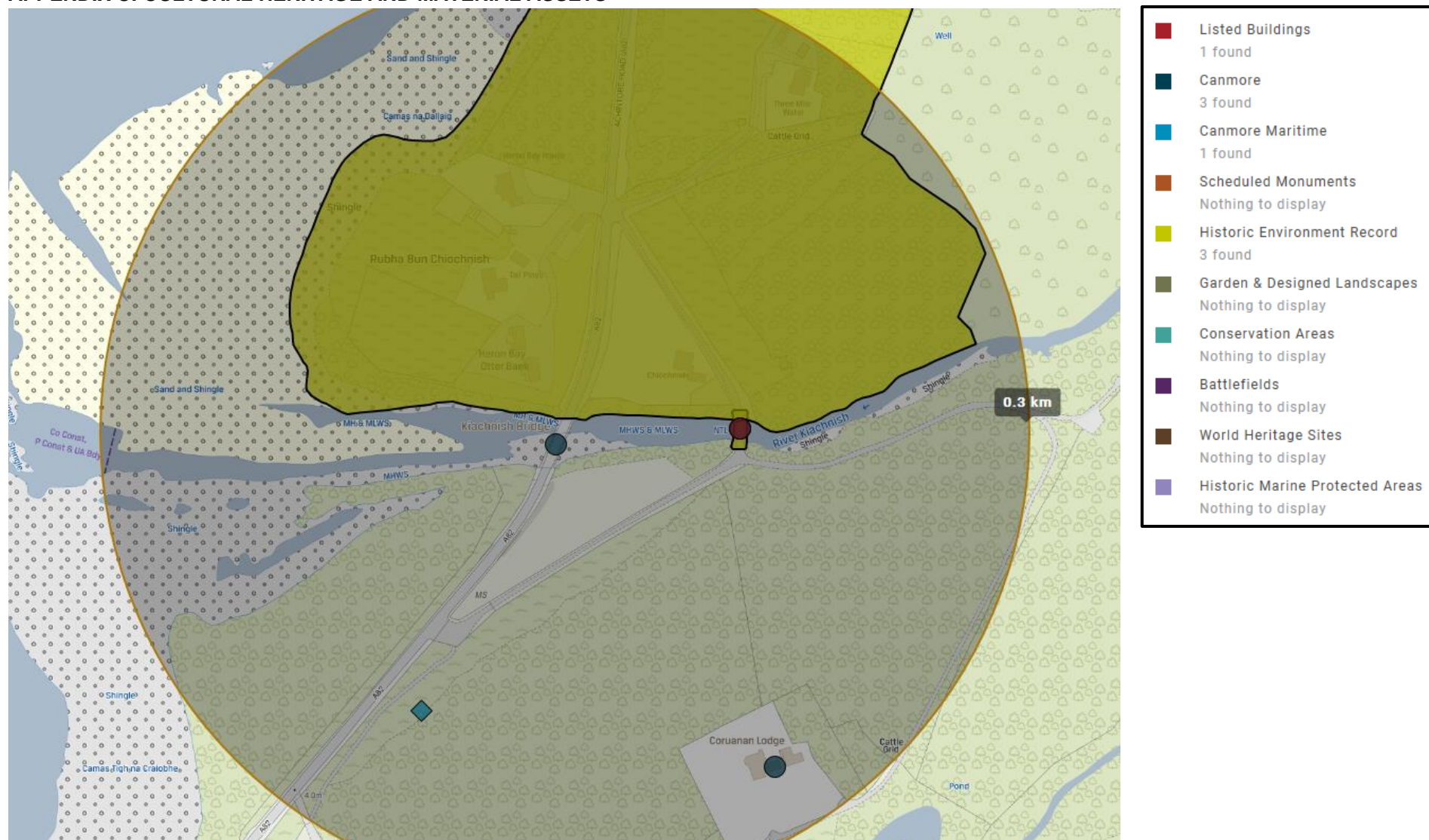
Figure B1: Residential and Business properties within 300m of the proposed works Source: HES PastMap

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**Table B1: Residential and Business properties within 300m of the proposed**

<b>Property Name</b>	<b>Distance from Kiachnish Bridge (m)</b>
Otter Bank	30m north
Heron Bay	50m north
Chiochnish	85m northeast
Tall Pines	90m north
Heron Bay House	140m north
Three Mile Water	260m northeast
Coruanan Lodge	260m southeast





**Figure C1: Sites of cultural heritage interest recorded within 300m of scheme (shaded circle). Source: HES PastMap**

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## Trunk Road and Bus Operations

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### APPENDIX D: BIODIVERSITY



**Figure D1:** Location of target notes recorded on site. Source: GridRefFinder

Table D1: Summary of target notes		
Grid Reference	Distance to Works	Description
NN 06693 69082	97m	[Redacted]
NN 06644 69091	41m	2. Rhododendron plant
NN 06493 69098	100m	3. Stand of Japanese knotweed
NN 06562 69041	28m	4. Stand of Japanese knotweed

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**APPENDIX E: SUMMARY OF CONSULTATION WITH STATUTORY AND NON-STATUTORY  
CONSULTEES**

<b>Organisation</b>	<b>Comments</b>
NatureScot	<ul style="list-style-type: none"><li>The works lie outwith, and are unlikely to affect, any designated sites for nature conservation.</li></ul>
Lochaber District Salmon Fisheries Board	<ul style="list-style-type: none"><li>Support your proposal and revised timeline. It seems a sensible balance between construction requirements and ecological constraints.</li></ul>
Scottish Environment Protection Agency	<ul style="list-style-type: none"><li>SEPA understand all works are below MHWS and that BEAR Scotland intend to apply for a Marine Licence.</li><li>Works are taking place in transitional waters there is no formal authorisation required from SEPA.</li></ul>
Marine Scotland	<ul style="list-style-type: none"><li>E-mail communication between BEAR Scotland and Marine Scotland advising Marine Scotland of the works and Marine Scotland confirming PAC is required and outlining the requirements which will need to be met.</li></ul>

**NatureScot**

**From:** NORTH\_AREAS\_CASEWORK <[NORTH\\_AREAS\\_CASEWORK@nature.scot](mailto:NORTH_AREAS_CASEWORK@nature.scot)>

**Sent:** 05 January 2021 11:17

**To:** NW Bridges Consultation <[NWBridgesConsultation@bearsotland.co.uk](mailto:NWBridgesConsultation@bearsotland.co.uk)>

**Subject:** RE: BEAR Scotland A82 Kiachnish Bridge Scour Repairs Marine Licence Pre-Application Consultation

Good morning,

Thank you for consulting on this pre-application proposal for works to the A82 Kiachnish Bridge.

I can confirm that we have no comments to make on the proposal. The works lie outwith, and are unlikely to affect, any designated sites for nature conservation.

Kind regards,  
Kirsty

**Kirsty North | Area Officer, South Highland**

NatureScot | Achantoul | Aviemore | PH22 1QD | [Redacted]

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## Transport Scotland

### Trunk Road and Bus Operations

Document:

#### Lochaber District Salmon Fisheries Board

**From:** Jon Gibb <jongibb123@gmail.com>

**Sent:** 12 March 2021 15:16

**To:** Sarah Rauch-Lynch <SRauch-Lynch@bearsotland.co.uk>

**Cc:** Eddie Douglas <EDouglas@bearsotland.co.uk>; Cameron Ewen <CEwen@bearsotland.co.uk>

**Subject:** Re: BEAR Scotland A82 Kiachnish Bridge scour repairs consultation

Hi Sarah

Many thanks for this.

I can confirm that on behalf of the DSFB I would support your proposal and timeline as listed in your email. It seems a sensible balance between construction requirements and ecological constraints. Thank you for the speed with which you have considered everything and come up with this sensible solution.

best wishes

Jon

On Fri, Mar 12, 2021 at 9:10 AM Sarah Rauch-Lynch <[SRauch-Lynch@bearsotland.co.uk](mailto:SRauch-Lynch@bearsotland.co.uk)> wrote:

Good afternoon Jon

Thank you for your call yesterday, I really appreciate you taking the time to talk through your comments with me. I just want to briefly summarise what we discussed before going on to provide an alternative programme of works for your approval.

- You were not aware that there would be a period of 4-6 weeks in the summer months when the temporary in-stream works would prevent the movement of migratory fish species.
- This is problematic as the sea trout and salmon run from June to October and this would prevent them moving upstream.
- You highlighted that the preferred period at this location for these works would be between mid-November to mid-March which would avoid the adult fish run from June to October and the smolt run in April/May.
- You highlighted that lighting and noise which can disturb fish is primarily a problem when they are running and therefore less of an issue between mid-November to mid-March.
- You highlighted that while measures should always be in place to prevent pollution and transport of sediments downstream this is less of an issue at this location as the works are in transitional waters so there is no spawning/eggs or juvenile fish which are highly sensitive to being smothered.

Having spoken to the engineer we have revised the programme of works based on your comments and hope this will address your comments above.

- August 2021 - Set up site compound. **No in-stream working.**
- Sept/October – Span 1 works, in-stream works in a dry working area. **Passage for fish will be maintained.** Some lighting of the watercourse may be required for a few hours in the morning and

## Transport Scotland

### Trunk Road and Bus Operations

#### Document:

late afternoon/early evening to extend the working day due to shorter daylight hours. A period of darkness overnight will be maintained.

- October/November - Span 3 works, in-stream works in a dry working area. **Passage for fish will be maintained.** Some lighting of the watercourse may be required for a few hours in the morning and late afternoon/early evening to extend the working day due to shorter daylight hours. A period of darkness overnight will be maintained.
- Mid-November/December – Span 2 works, in-stream works in a dry working area. Works in the central span of Kiachnish Bridge, the River Kiachnish will need to be flumed through large pipes for a period of 4-6 weeks. **During this time, it will not be possible for movement of fish through the working area.** Some lighting of the watercourse may be required for a few hours in the morning and late afternoon/early evening to extend the working day due to shorter daylight hours. A period of darkness overnight will be maintained (although we understand this is not as critical during this period as fish will not be running).
- January - De-mobilisation from site, some landscaping working may not be able to be carried out until March.

It is our preference to start working in August as this will avoid in-stream working during the main winter period where we are likely to encounter high water flows and bad weather, which could impact the safety of site staff and cause delays to the programme. Our proposed programme would allow BEAR Scotland a bit of flexibility if we encounter issues as described above. If works were delayed due to shorter working days or bad weather Span 2 works, where passage for fish will be restricted, would still be within the window of mid-November to mid-March. We have tried to balance ecological constraints in relation to fisheries with the other factors associated with working during the winter.

We would very much appreciate your comments at your earliest convenience so that we continue with finalising environmental reports and licence applications. As I mentioned we are in on-going discussion with Kate Tuer of Scottish Woodlands who is representing the local landowner. I advised Kate earlier this week that I would contact you and feed-back any comments to keep them fully advised of our discussions and your recommendations.

If you would like to discuss any of the information above please do not hesitate to give me a call on the mobile number below.

Many thanks

Sarah

**Sarah Rauch-Lynch BSc (Hons) MCIEEM**

**Senior Environmental Advisor**

**BEAR Scotland | North West Unit**

Direct dial: ~~0330 008 0558~~ | Ext: ~~2558~~ | Mobile: [Redacted] | E-mail: [srauch-lynch@bearsotland.co.uk](mailto:srauch-lynch@bearsotland.co.uk)

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## Transport Scotland

### Trunk Road and Bus Operations

#### Document:

**From:** Sarah Rauch-Lynch  
**Sent:** 10 March 2021 13:16  
**To:** Jon Gibb <[jongibb123@gmail.com](mailto:jongibb123@gmail.com)>  
**Cc:** Eddie Douglas <[EDouglas@bearsotland.co.uk](mailto:EDouglas@bearsotland.co.uk)>; Cameron Ewen <[CEwen@bearsotland.co.uk](mailto:CEwen@bearsotland.co.uk)>  
**Subject:** BEAR Scotland A82 Kiachnish Bridge scour repairs consultation  
**Importance:** High

Good afternoon Jon

BEAR Scotland are now in a position to submit our Marine Licence Application to Marine Scotland and I am looking to finalise environmental reports. Thank you very much for your consultation responses to date. I have attached a copy of our most recent correspondence in February of last year and a copy of the pre-application consultation for the Marine Licence Application which should have been circulated to you.

I just wanted to highlight one specific point for your attention. During Phase 2 of the proposed works, when we will be working in the central span of Kiachnish Bridge, the River Kiachnish will need to be flumed through large pipes for a period of 4-6 weeks in July/August. During this time, it will not be possible for movement of fish through the working area. We have made all possible effort to ensure free and easy access for migratory fish species throughout the works; however, due to the scale of the temporary works required to ensure a safe working area for site staff (protected from both tidal and riverine flows), maintaining passage for fish will not be possible during this single phase of works. At all other times during in-stream working we will be able to maintain the flows within the remaining two spans of the bridge to allow movement for migratory fish species. The works have been programmed to ensure that all in-stream works will be carried out between June and September (inclusive) to avoid the most sensitive period for migratory fish.

In light of the above, could you advise on any specific mitigation measures (eg. stop nets or electrofishing) which we could put in place to further reduce impacts during that 4-6 week period during Phase 2 works when the river will need to be flumed and fish passage will not be possible? This will help finalise our reports and inform our Site Environmental Management Plan (SEMP).

I have summarised below the mitigation that will be in place throughout the works to avoid impacts on fisheries:

- Mitigation measures described in the Water Section *(I have included that mitigation below)* will be followed to minimise potential impacts on the water environment.
- Pollution prevention and sediment containment measures will be in place for the duration of construction.
- Works will be carried out during June to September (inclusive), which is outwith the sensitive period for salmonids.
- The works will be carried out in a dry working area.
- Lighting at night on site should also be kept to a minimum as this can deter migratory fish from travelling upstream during the short summer nights.
- Tracking of machinery through the watercourses will not be permitted, except where it is essential to install temporary works to achieve dry working areas.
- No discharges into any watercourses or drainage systems are permitted.
- An Environmental Clerk of Works (ECOW), will attend site during set up of the site compounds and will attend site fortnightly during construction, as a minimum. More frequent visits may be required during sensitive site activities (e.g. dry working area installation, reinstatement of

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### Trunk Road and Bus Operations

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riverbed, landscaping activities). The ECoW will advise on the suitability and effectiveness of pollution prevention measures. If required, the ECoW will have the power to conduct audits of the site at any time and stop works should any breach of the Site Environmental Management Plan (SEMP) or Marine Licence conditions be identified. The ECoW will provide advice and recommendations to the contractor and will produce an ECoW report for submission to BEAR Scotland on a monthly basis.

Mitigation measures to protect the water environment throughout the works:

- All conditions of the Marine Licence are to be complied with, a copy of which will be supplied to the successful contractor.
- A copy of the Marine Licence must also be kept on-site at all times.
- No discharges into any watercourses or drainage systems are permitted.
- All plant and equipment must be regularly inspected for any signs of damage and leaks. A checklist will be present to make sure that the checks have been carried out.
- All on-site activities should operate in accordance with relevant SEPA Pollution Prevention Guidelines (PPGs) and Guidance for Pollution Prevention (GPPs).
- All hazardous material will be stored in accordance with Control of Substance Hazardous to Health (COSHH) data in a designated storage area at least 10m away from any watercourses, drains and / or waterbodies.
- The designated storage area must be on impermeable ground and fully bunded.
- All hazardous material utilised on site is required to undergo assessment under the COSHH Regulations 2002. These assessment(s) will contain a section on environment which highlights any precautions and mitigation requirements.
- All hazardous material will be stored in line with COSHH data within a designated COSHH storage area. Oils and chemicals will be stored in appropriately bunded storage cabinets. The COSHH store will be locked with only appropriate personal having access and an inventory register being maintained.
- Where applicable and practicable, bio-degradable hydraulic fluids and oils should be utilised in machinery.
- Where fuel is stored on site and refuelling activities are undertaken, the following will apply:
  - Only suitably double-skinned fuel bowser(s) or tank(s) in line with General Binding Rules the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) will be utilised on site.
  - The fuel bowser(s) and/or tank(s) must be stored at least 10m away from any watercourses, waterbodies or drains and away from being struck by plant and machinery.
  - All distribution and fuelling nozzles will be fitted with a shut-off valve.
  - All refuelling activities are to be undertaken in a designated site with a drip tray positioned underneath the nozzles when not in use.
  - All fuel containers and nozzles are to be secured, for example with a lock when not in use.
  - All staff undertaking refuelling activities are to be appropriately trained and undertake these activities in line with site refuelling procedures.
- During refuelling of smaller mobile plant, a funnel and drip trays must be used.
- Spill kits must be quickly accessible to capture any spills should they occur.
- The ground / stone around the site of a spill must be removed, double-bagged and taken off site as special contaminated waste.

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- Generators and static plant may have the potential to leak fuel and/or other hydrocarbons and must have bunding with a capacity of 110%. If these are not available, then drip trays with a capacity of 110% should be placed beneath the equipment.
- A spillage control procedure will be in place in which all staff are to be trained.
- Suitable spill kits are to be available on site with all staff to be trained in their use.
- All spills must be logged and reported. In the event of any spills into the water environment, all works must stop, and the incident reported to the project manager and the BEAR Scotland Environment Team. SEPA must be informed of any such incident as soon as possible using the SEPA Pollution Hotline.
- Mitigation detailed in Biodiversity Section will be strictly adhered to.
- The Water Pollution – Silt toolbox talk will be delivered to all site personal as part of the site induction prior to works commencing.
- Pollution prevention measures will be installed as required to prevent loss of sediments from the working area into the River Kiachnish and Loch Linnhe.
- Pollution prevention measures will be checked daily and more regularly during period of heavy rainfall.

I would appreciate any comments or additional mitigation measures which you would like to see in place at your earliest convenience so that we may progress with the Marine Licence Application. If you would like to discuss any of the information above please do not hesitate to give me a call on the mobile number below.

Many thanks

Sarah

**Sarah Rauch-Lynch BSc (Hons) MCIEEM**

**Senior Environmental Advisor**

**BEAR Scotland | North West Unit**

Direct dial: ~~0330 008 0558~~ | Ext: ~~2558~~ | Mobile: [Redacted] | E-mail: [srauch-lynch@bearsotland.co.uk](mailto:srauch-lynch@bearsotland.co.uk)

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**Document:**

**Scottish Environment Protection Agency**

**From:** CB Permitting Water <waterpermitting@sepa.org.uk>  
**Sent:** 12 February 2020 09:35  
**To:** Sarah Rauch-Lynch <SRauch-Lynch@bearsotland.co.uk>  
**Subject:** FW: BEAR Scotland A82 Kiachnish bridge scour repairs

Good morning Sarah,

I understand all works are below MHWS and that you have approached Marine Scotland for a Marine Licence. You have rightly pointed out that as these works are taking place in transitional waters there is no formal authorisation required from SEPA.

Regards,

Al Galloway  
Water Permitting Manager  
Scottish Environment Protection Agency  
Graesser House, Dingwall, IV15 9XB

T: 01349 862021

Working days: Tue, Wed, Thu & Fri

**Marine Scotland**

**From:** Fiona.Munro2@gov.scot <Fiona.Munro2@gov.scot>  
**Sent:** 20 October 2020 07:26  
**To:** Cameron Ewen <CEwen@bearsotland.co.uk>  
**Cc:** Sarah Rauch-Lynch <SRauch-Lynch@bearsotland.co.uk>  
**Subject:** RE: BEAR Scotland A82 Kiachnish bridge scour repairs

Hi Cameron,

Pre-application consultation requirements are the same with slight adjustments because of the covid-19 restrictions. If the activity is of a class or description prescribed in Regulation 4 of The Marine Licensing (Pre-Application Consultation) (Scotland) Regulations 2013 ("the Regulations") it would require pre-application consultation.

Due to the COVID-19 pandemic and the current physical distancing guidance in place, the Regulations have been amended by [The Marine Works and Marine Licensing \(Miscellaneous Temporary Modifications\) \(Coronavirus\) \(Scotland\) Regulations 2020](#) ("the Amending Regulations"), which came into force on the 20 May 2020. Under the Amending Regulations, where a pre-application consultation event must be held, this is now to be held online, with the public notice reflecting this. These amendments are temporary in nature and end on the date when Part 1 of the Coronavirus (Scotland) Act 2020 expires in accordance with section 12 of that Act.

**What this means to you**

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You are required to carry out pre-application consultation prior to making your application. In brief you will need to carry out the following steps:

- Notify MS-LOT, SNH, SEPA, MCA and NLB of your intention to apply for a marine licence at least 12 weeks prior to submission of an application. We also recommend that you notify any other relevant local stakeholders, such as fisheries groups and recreational users. The prescribed format for this notification is detailed in Section 23 of The Marine (Scotland) Act 2010 ("the Act");
- Publish in a local newspaper a notice detailing the licensable marine activity for which the licence is to be sought and the pre-application consultation event. The prescribed format for this advert is detailed in Regulation 7 of the Regulations. During the period when the Amending Regulations are in force a word or pdf copy of the public notice must be sent to MS-LOT, this will be placed on our website;
- Hold at least one pre-application consultation event to which the public and the bodies above are invited. Under the Amending Regulations, where a pre-application consultation event must be held, this is now to be held online, with the public notice reflecting this;
- The event must be held no earlier than six weeks of the later of the first two points above; and
- Produce a pre-application consultation report using the updated form detailed in the Amending Regulations.

#### **Further information or guidance**

The rules covering marine licensing can be found at Part 4 of the Marine (Scotland) Act 2010. A the Act 2010 can be obtained at:

<http://www.legislation.gov.uk/asp/2010/5/contents>

Guidance on The Marine Licensing (Pre-application Consultation) (Scotland) Regulations can be obtained at:

<http://www.scotland.gov.uk/Topics/marine/Licensing/marine/guidance/preappconsult>

Further information on marine licensing can be obtained from our website at:

<http://www.scotland.gov.uk/Topics/marine/Licensing/marine>

Kind regards,  
Fiona

Dr Fiona Munro  
Marine Licensing Casework Manager  
**Marine Scotland** - Marine Planning & Policy

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Email: [MS.MarineLicensing@gov.scot](mailto:MS.MarineLicensing@gov.scot)

Website: <http://www.gov.scot/Topics/marine/Licensing/marine>

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**From:** Cameron Ewen <[CEwen@bearsotland.co.uk](mailto:CEwen@bearsotland.co.uk)>  
**Sent:** 19 October 2020 16:12  
**To:** Munro F (Fiona) (MARLAB) <[Fiona.Munro2@gov.scot](mailto:Fiona.Munro2@gov.scot)>  
**Cc:** Sarah Rauch-Lynch <[SRauch-Lynch@bearsotland.co.uk](mailto:SRauch-Lynch@bearsotland.co.uk)>  
**Subject:** RE: BEAR Scotland A82 Kiachnish bridge scour repairs

Hi Fiona,

I am picking this up again after the COVID restrictions.  
If a PAC is required, what does this involve and how long will it take?

Many Thanks  
Kind Regards  
Cameron

**Cameron Ewen** BSc PgDIP IEng MICE  
**Senior Bridge Engineer | BEAR Scotland | North West Unit**  
Direct Line: 03300 080528 | Ext: 2528 | Mobile: [Redacted]

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**From:** [Fiona.Munro2@gov.scot](mailto:Fiona.Munro2@gov.scot) <[Fiona.Munro2@gov.scot](mailto:Fiona.Munro2@gov.scot)>  
**Sent:** 14 May 2020 09:18  
**To:** Cameron Ewen <[CEwen@bearsotland.co.uk](mailto:CEwen@bearsotland.co.uk)>  
**Subject:** RE: BEAR Scotland A82 Kiachnish bridge scour repairs

Hi Cameron,

Thank you for clarifying those areas.

One other question, I know you mentioned that the temporary works has not been finalised yet but could you confirm approximately which activities and works would take place in the area of temporary works?

Kind regards,  
Fiona

Marine Licensing Casework Manager  
**Marine Scotland** - Marine Planning & Policy

## Transport Scotland

### Trunk Road and Bus Operations

#### Document:

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Email: [MS.MarineLicensing@gov.scot](mailto:MS.MarineLicensing@gov.scot)

Website: <http://www.gov.scot/Topics/marine/Licensing/marine>

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**From:** Cameron Ewen <[CEwen@bearsotland.co.uk](mailto:CEwen@bearsotland.co.uk)>

**Sent:** 13 May 2020 12:07

**To:** Munro F (Fiona) (MARLAB) <[Fiona.Munro2@gov.scot](mailto:Fiona.Munro2@gov.scot)>; Sarah Rauch-Lynch <[SRauch-Lynch@bearsotland.co.uk](mailto:SRauch-Lynch@bearsotland.co.uk)>

**Cc:** Eddie Douglas <[EDouglas@bearsotland.co.uk](mailto:EDouglas@bearsotland.co.uk)>

**Subject:** RE: BEAR Scotland A82 Kiachnish bridge scour repairs

Hi Fiona,

I have tried to answer your queries below;

Are the works considered alteration/improvement or new construction?

The works are to reinstate the riverbed using imported rip-rap rock armour. These could be considered an improvement as larger, heavier material is being imported to replace the existing bedding material

What is the total area of the works and what is the area of the works that is extended beyond the existing footprint?

The 2 sections of the works;

1. Permanent Works; these will extend approx. 11.3m either side of the existing. The total area of the works is approx. 1200m<sup>3</sup>. This could be thirded i.e. 400m<sup>3</sup> extending u/s, extending d/s, and under the bridge
2. Temporary Works; potential these could extent approx. 30 -45m either u/s or d/s of the permanent works. The temporary works are still being finalised... The plan is to keep 2 arches open to flow.

Hope this answers your queries

Best Regards

Cameron

**Cameron Ewen** BSc PgDip IEng MICE

**SENIOR BRIDGE ENGINEER**

**NW BRIDGES | BEAR SCOTLAND - PERTH**

Direct Line: 03300 080 528 | Ext 2528

Mobile: [Redacted]

**Transport Scotland**  
**Trunk Road and Bus Operations**

**Document:**

**From:** [Fiona.Munro2@gov.scot](mailto:Fiona.Munro2@gov.scot) <[Fiona.Munro2@gov.scot](mailto:Fiona.Munro2@gov.scot)>  
**Sent:** 13 May 2020 09:47  
**To:** Sarah Rauch-Lynch <[SRauch-Lynch@bearsotland.co.uk](mailto:SRauch-Lynch@bearsotland.co.uk)>  
**Cc:** Cameron Ewen <[CEwen@bearsotland.co.uk](mailto:CEwen@bearsotland.co.uk)>; Eddie Douglas <[EDouglas@bearsotland.co.uk](mailto:EDouglas@bearsotland.co.uk)>  
**Subject:** RE: BEAR Scotland A82 Kiachnish bridge scour repairs

Dear Sarah,

Apologies for the delay in responding to your email.

Thank you for the information about the proposed works for the A82 Kiachnish bridge scour repairs.

In terms of Pre-application Consultation (PAC) requirements under The Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013, the works potentially require PAC however I would like to confirm some details first.

What is the total area of the works and what is the area of the works that is extended beyond the existing footprint? Looking at the drawings it was a bit tricky for me to determine these areas. Also, could you also confirm whether the works would be considered alteration/improvement or new construction?

Kind regards,  
Fiona Munro

Marine Licensing Casework Manager  
**Marine Scotland** - Marine Planning & Policy

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB  
Email: [MS.MarineLicensing@gov.scot](mailto:MS.MarineLicensing@gov.scot)  
Website: <http://www.gov.scot/Topics/marine/Licensing/marine>

*COVID-19: Marine Scotland - Licensing Operations Team (LOT) is working from home and unable to respond to phone enquiries. Please communicate with LOT via email. Email addresses are MS.MarineRenewables@gov.scot for marine renewables correspondence or MS.MarineLicensing@gov.scot for all licensing queries*

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Good Afternoon

I have been advised by SEPA that they do not wish to make any comments on the proposed works as they are below MHWS. I believe you were copied in to the response from Jon Gibb. Could you please advise if you require pre-application consultation in relation to the proposed works?

If you have any comment they would be gratefully received to avoid design reviews further down the line.

Due to Covid-19 works are postponed however to allow for sufficient lead in time we are keen to progress with the Marine Licence Application.

Many thanks



## Transport Scotland

### Trunk Road and Bus Operations

Document:

Sarah

**Sarah Rauch-Lynch BSc (Hons) MCIEEM**

**Senior Environmental Advisor**

**BEAR Scotland | North West Unit**

Direct dial: 0330 008 0558 | Ext:2558 | mobile: [Redacted] | e-mail: [srauch-lynch@bearsotland.co.uk](mailto:srauch-lynch@bearsotland.co.uk)

Visit us @ [www.bearscot.com](http://www.bearscot.com)

**From:** Sarah Rauch-Lynch

**Sent:** 05 February 2020 14:17

**To:** Jon Gibb <[jongibb123@gmail.com](mailto:jongibb123@gmail.com)>; 'MS.MarineLicensing@gov.scot' <[MS.MarineLicensing@gov.scot](mailto:MS.MarineLicensing@gov.scot)>; 'AHS@sepa.org.uk' <[AHS@sepa.org.uk](mailto:AHS@sepa.org.uk)>

**Cc:** Cameron Ewen <[CEwen@bearsotland.co.uk](mailto:CEwen@bearsotland.co.uk)>; Eddie Douglas <[EDouglas@bearsotland.co.uk](mailto:EDouglas@bearsotland.co.uk)>

**Subject:** BEAR Scotland A82 Kiachnish bridge scour repairs

Good afternoon

BEAR Scotland on behalf of Transport Scotland have works proposed on the A82 Trunk Road at the bridge over the River Kiachnish, south of Fort William.

The trunk road bridge has been scoured around the piers and abutments due to the scour susceptibility of the river substrates. Since 2015, BEAR has investigated a number of solutions to resolve the scour. While we have been able to produce a permanent design and perform minor scour repairs to the North U/S bank, establishing the temporary works for the construction of the permanent works has been problematic, due to the temporary dry working areas having to withstand both tidal and freshwater flows.

BEAR have investigated traditional methods such as piling but due to geological restraints this approach is not feasible. Various other systems such as temporary flood barriers have been investigated, but could not be deployed successfully.

Therefore, it is proposed to carry out bed reinstatement across the whole width of the channel to remove scour susceptible material and replace this with material not susceptible to scour. I have provided more information below on both the temporary works and main works proposals. It is planned that the works would be carried out in 2021 and would take approximately 6 months to complete ie from April to September inclusive.

The Bridge over the River Kiachnish is below the MHWS level and BEAR Scotland will apply for a Marine Licence from Marine Scotland. The works will span the whole width of the mouth of the River Kiachnish and therefore SEPA are also being consulted on the proposed works. It is not expected that BEAR would require any formal authorisation from SEPA for the proposed works. The Lochaber District Salmon Fisheries Board are being asked for their comments due to the potential for impacts on migratory salmonids.

Link to open all scheme drawings on One Drive [https://bearsotland-my.sharepoint.com/:f/g/personal/srauch-lynch\\_bearsotland\\_co\\_uk/EsdBtScW9X9JrTKmGnbnC00Bbx6732NOik1aD5gEkz9EGw](https://bearsotland-my.sharepoint.com/:f/g/personal/srauch-lynch_bearsotland_co_uk/EsdBtScW9X9JrTKmGnbnC00Bbx6732NOik1aD5gEkz9EGw) You should all have access to this folder, if for any reason this is not permitted let me know.

Main works

## **Transport Scotland**

### **Trunk Road and Bus Operations**

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*See Drawings 15-NW-1201-084-100 through 104 and Kiachnish Phase 2 Bill of Quantities 05092018*

The drawings show the final scour solution which will involve excavation of the scour susceptible bed material from the watercourse, installation of geotextile, installation of rock armour and reinstatement of the excavated bed material. This will take place directly under the bridge and extend to 11.7m upstream and downstream of the bridge.

#### Temporary works

*See Drawings Phase 1, Phase 2 and Phase 3*

The temporary works are essential to create a dry working area to allow the main works to be undertaken. BEAR Scotland have explored a number of different temporary works solution, we believe this iteration is the most likely to reduce impacts on fisheries during the construction period.

Works will be carried out in 3 Phases. Phase 1 will carry out works in Span 1, Phase 2 will carry out works in Span 3 and Phase 3 will carry out works in Span 2. The construction sequence proposed is Phase 1, Phase 2, Phase 3. Each Phase will take approximately 2 months which will include the erection and removal of the temporary works.

Phases 1 and 2 will utilise kyowa rockbags (<https://rockbags.co.uk/>) to create coffer dams around the bridge abutments. This will mean that a wetted channel is maintained during these phases, to allow for movement of fish species. Phase 3 will be carried out over the central span. A coffer dam will be installed, however the temporary works design also requires installation of two pipe culverts for the duration of Phase 3 works which is likely to prevent movement of salmonids upstream or downstream of the River Kiachnish during that period (approx. 2 months in August/September).

It is proposed to commence Phase 1 works in March/April 2020 as Span 1 is essentially a dry channel during low flows due to a build-up of river substrates. This would allow Phase 2 and 3 which are in the main river channel to be completed between June to September/October.

Could you please advise me of any comments or queries you have on the proposed works. This will allow us to resolve any issues prior to submission of a Marine Licence Application. It would be useful to get an idea at this stage of any additional licences or consents required.

We would very much welcome a meeting on site with any or all parties to discuss any of the information provided. If you would be interested in a site meeting please let me know and I will organise this at a time to suit everyone.

Many thanks

Sarah

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