



**TRANSPORT
SCOTLAND**
CÒMHDHAIL ALBA

Environmental Impact Assessment Record of Determination

A82 Laggan Swing Bridge

Winter Works 2024-25

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Project Details

Description

BEAR Scotland has been commissioned by Transport Scotland to carry out replacement and/or repair of mechanical and electrical components of A82 Laggan swing bridge in order to maintain the bridge in good working order. The works are programmed to be undertaken over three phases and will include the following activities:

- Phase 1 – generator and cabin works (September – November 2024).
- Phase 2 - Hydraulic Power Unit (HPU) pack installation (November 2024 – February 2025).
- Phase 3 – Commissioning and training (March 2025).

Phase 1: Generator and cabin works will entail removal of the old generator and cabin and installation of a new and larger generator (88kVA) and larger cabin. Vegetation clearance may be required. The existing cabin's concrete base will be retained for the new cabin, but excavation works will be required to install the associated cables and ducting for the new cabin. Location for the new cabin has been agreed with Scottish Canals (landowner).

Phase 2: Hydraulic installation works will entail replacement of HPU pack incorporating duty and standby motor/pump sets. Hydraulic hard lines will be replaced with separate single feed and return from/to HPU. Rams and wedge sensors will be replaced with new rams which have built-in linear transducer sensors. Scaffold for access to the underside of the bridge will be required. These works will be completed during the closed season on the Caledonian Canal.

Phase 3: Commissioning and training of staff will take place following completion of the first two phases of works.

The total area of the scheme does not exceed 1ha.

The works are currently programmed to be completed within the 2024/2025 financial year over three phases by utilising daytime working hours:

Phase 1: 2nd September 2024 – 22nd November 2024

Phase 2: 4th November 2024 – 28th February 2025 (canal closed season)

Phase 3: March 2025

No traffic management (TM) is anticipated on the A82 carriageway live lanes – the works are around / beneath the swing bridge. Pedestrians and non-motorised users (NMUs) will be accommodated within any traffic management if required.

Canal navigation closure is in place from 4th November 2024 – 21st March 2025.

Location

The scheme is located at the A82 Laggan swing bridge within the Highland Council (Figure 1). The National Grid Reference (NGR) for the A82 Laggan swing bridge (centred): NN 29988 98318.



Figure 1. Scheme location showing the working areas (red lines).

Description of local environment

Air quality

The scheme is not located within an Air Quality Management Area (AQMA) declared by the Highland Council ([Air Quality in Scotland](#)).

No Air Quality Monitoring Stations (AQMS) are located within 10km of the proposed works ([Air Quality in Scotland](#)).

No Scottish Pollutant Release Inventory (SPRI) sites (which record air pollutant releases), are located within 10km of the scheme ([Scotland's Environment](#)).

Baseline air quality at the scheme location is likely to be primarily influenced by traffic along the A82 trunk road and Caledonian Canal. Secondary sources are likely derived from day-to-day urban and agricultural activities.

Cultural heritage

A desktop study using Historic Environment Scotland's [PastMap](#) has identified the following features of cultural heritage within 300m of the scheme:

- A82 Laggan swing bridge spans the Scheduled Monument 'Caledonian Canal, Laggan Locks to Loch Oich' (SM6494).
 - The area scheduled includes all the canal in water and the strip of ground extending up to 20m from the water on either side and containing the towpaths and embankments and any associated capstans, bollards, mooring hooks, mile posts, weirs and overflows.
 - The scheduled area excludes the plate girder swing bridge at Laggan, all modern moorings, pontoons, slipways, walls and fences, power cables, lampposts and other street furniture.
- The scheme extent is located within Blar Na Lélne Inventory Battlefield (ID: BTL29).

Of lesser cultural heritage value, seven Historic Environment Records (HERs) and nine records on the Canmore database lie within 300m of the scheme extents. Two of these, a HER and a Canmore, pertain to the A82 Laggan swing bridge. There is no connectivity between the scheme and remaining cultural heritage records as the nearest of these lies approximately 50m east of the scheme.

No Garden & Designed Landscapes, Conservation Areas, Listed Buildings, or World Heritage sites were identified within 300m of the scheme ([PastMap](#)).

Landscape and visual effects

The scheme is not located with a National Park or National Scenic Area ([SiteLink](#)).

The A82 Laggan swing bridge is located within the 'Broad Forested Strath' (LCT No. 235) [Landscape Character Type \(LCT\)](#), which has the following Special General Qualities:

- Broad, low-lying straths with rolling relief and sculptural glacial landforms.
- Simple, large scale mosaic of forested ridges, rolling pastures and heather moorland, but dominated by swathes of forestry.
- A comparatively densely settled landscape with villages, houses and sporadic commercial development.
- Quarries hidden amongst the woodland cover.
- Strong communication and service corridors.
- Long distance views from surrounding hills over the glens, which are framed by steep glen sides.
- Lochs, rivers or canals on glen floor have often been engineered or substantially altered by man.

The bridge lies within a semi-rural area, with land use surrounding the scheme being a mixture of agriculturally improved, re-seeded and heavily fertilised grassland, scattered urban development and road network. Woodland is a prominent land use further afield from the scheme. The Caledonian Canal and the A82 Laggan swing bridge form major landscape features within the area.

The A82 Trunk Road, within the North West, connects Alexandria with Crianlarich, Fort William and Inverness. It commences immediately north of Tullichewan Roundabout in Alexandria leading generally northwards for a distance of 243 kilometres to its junction with the A9 at (but excluding) Longman Roundabout in Inverness. The A82 is predominantly single carriageway along its length, with some lengths of '2+1' carriageway. The A82 is a single carriageway at the A82 Laggan swing bridge.

Biodiversity

There are no European sites located within 2km of the scheme ([SiteLink](#)).

South Laggan Fen Site of Special Scientific Interest (SSSI) (EU Site Code: 135097) lies 10m east of the scheme. The SSSI is designated for transition open fen habitat ([SiteLink](#)).

There are no other locally or nationally designated sites (i.e. SSSI, National/Local Nature Reserves) within 300m of the scheme ([SiteLink](#)).

The NBN Atlas did not highlight any records of invasive non-native plant species (INNS) (as listed on Schedule 9 of the WCA), injurious weeds (as listed under the Weeds Act 1959) or invasive native perennials (as listed in the Trunk Road Inventory Manual) under the same search criteria.

Transport Scotland's Asset Management Performance System (AMPS) did not identify any INNS, injurious weeds or invasive native perennials within 300m of the scheme.

Expanses of woodland listed on the Ancient Woodland Inventory (AWI) as 'other' (on 'Roy' map) and 'ancient' (of semi-natural origin) lie within 300m of the scheme ([Scotland's Environment](#)).

There are no areas of woodland or individual trees covered by a Tree Preservation Order (TPO) within 300m of the scheme extents ([Highland Council](#)).

BEAR Scotland has undertaken and subcontracted a range of ecological surveys at the A82 Laggan swing bridge over the past several years. The most recent surveys were undertaken in summer 2023.

No presence of INNS was noted during the ecological surveys.

Geology and soils

The scheme does not lie within a Geological Conservation Review Site (GCRS), or a geologically designated SSSI ([NatureScot](#)).

Bedrock within the scheme extents is comprised of Great Glen Fault Zone (cataclasite), which is a metamorphic bedrock ([BGS GeoIndex](#)).

Superficial deposits within the scheme extent are comprised of glaciofluvial deposits (gravel, sand and silt), which is sedimentary superficial deposit ([BGS GeoIndex](#)).

The local soil type is recorded as mineral podzols ([Scotland's Environment Map](#)).

Soils within the scheme extent are recorded as being 'Class 0', as displayed on [Scotland's Peat Map](#). Class 0 are mineral soils with no peat present.

Material assets and waste

The proposed works are required to replace and/or repair mechanical and electrical elements of the A82 Laggan swing bridge in order to maintain the bridge in good working order. The works will require the following materials:

Construction Works

- Steel cabin (100% recycled material)
- Concrete foundations (virgin cements / recycled aggregate where available)
- Polymer ducting (likely virgin material / 100% recyclable at end of life)
- Soil backfill (locally excavated material 100% re-used)
- Generator cabin (virgin polymer / recycled glass fibres)

Electrical Works

- New generator (predominantly recycled iron / steel >90%)
- Cabling (100% recycled copper / virgin polymer 100% recyclable at end of life)
- Electronic components (virgin materials)

Hydraulic works

- Stainless steel pipework (>95% recycled steel)
- HPU pack (100% recycled steel frame / componentry is virgin materials)
- Bio-degradable hydraulic oil (food grade virgin material)

The value of the scheme exceeds £350,000 (currently valued at £605,000) and therefore a Site Waste Management Plan (SWMP) is required.

It is expected that the works will produce the following waste materials:

Construction Works

- Old generator cabin (to be issued to local charity for re-use)
- Concrete foundation (to be recycled for aggregate)

Electrical Works

- Old generator (to be issued to local charity etc. for re-use)
- Cabling (insulation to be stripped and recycled / copper to be recycled)
- Electronic components (re-cycle where possible.)

Hydraulic works

- Stainless steel pipework (>95% recycled steel)
- Bio-degradable hydraulic oil (food grade virgin material)

Noise and vibration

For residential, community and commercial receptors refer to the 'Population and Human Health' section below.

The works do not fall within a Candidate Noise Management Area (CNMA) as defined by the Transportation Noise Action Plan (Road Maps) ([TNAP](#)).

There are no modelled noise levels (Lden and Lnight) within the scheme extents ([Scotland's Noise Scotland's Environment](#)).

Baseline noise levels are likely to be influenced by traffic travelling along the trunk road and Caledonian Canal. Secondary sources are likely derived from day-to-day urban and agricultural land activities.

Population and human health

Fifteen residential properties, one lodge and a water park lie within 300m of the scheme extents. Noted residential and commercial premises lie along the Loch Oich banks with the nearest to the scheme being within 50m. Properties are generally screened from the scheme by intervening tree belts with exception of the property nearest to the scheme and those located north of the bridge which have no or limited screening. The access road to the property nearest to the scheme lies adjacent to the scheme extents.

National Cycle Network (NCN) route Nr73 ([OS Maps](#)), also noted as a Core Path 'South Laggan to Loch Oich on Great Glen Way' (ID: 96) ([Scotland's Environment](#)) and a walking route listed on WalkHighlands 'Great Glen Way 3: Laggan to Fort Augustus' crosses the A82 within the scheme extents ([WalkHighland](#)).

The area in proximity to the scheme is popular with tourists and outdoor recreationists.

No TM is anticipated to be required on the A82 carriageway live lanes as the works are around / beneath the bridge. Pedestrians and non-motorised users (NMUs) will be accommodated within any TM if required.

The Caledonian Canal is closed to boat navigation from 4th November 2024 – 21st March 2025 (approved by Scottish Canals). Works on the swing bridge itself will take place during the canal closed season.

The nearest manual traffic count point on the A82 carriageway lies approximately 1.2km south of the works. The average annual daily flow (AADF) data for A82 traffic

in 2023 was recorded as being 4,397 vehicles, including 178 (4%) heavy goods vehicles (HGVs) ([Road traffic statistics](#)).

Road drainage and the water environment

A82 Laggan swing bridge spans the Caledonian Canal - Loch Oich to catchment boundary, a classified waterbody (ID: 30974) at its mouth to Loch Oich, which is a classified loch (ID: 100188) ([SEPA water environmental hub](#)). Caledonian Canal - Loch Oich to catchment boundary is a canal in the River Ness catchment of the Scotland river basin district. The water body has been designated as an artificial waterbody on account of physical alterations that cannot be addressed without a significant impact on navigation ([SEPA water environmental hub](#)). Loch Oich lies 20m north of the swing bridge and is a lake in the River Ness catchment of the Scotland river basin district. It is 1.9 square kilometres in area. Both Caledonian Canal - Loch Oich to catchment boundary and Loch Oich have been assigned a Water Framework Directive 2000/60/EC (WFD) overall classification of 'Good' (in 2022) ([SEPA water environmental hub](#)).

Numerous minor unclassified surface waterbodies considered to be minor drainage channels or tributaries lie within 300m of the scheme extents.

The scheme is underlain by the 'Northern Highlands' groundwater body, which was classified by SEPA in 2022 as having an overall status of 'good' ([SEPA Water Classification Hub](#)). This groundwater body is also recorded as a Drinking Water Protected Area (DWPA) (Ground) ([Scotland's Environment](#)).

A search of SEPA Flood Maps records that the banks of the Caledonian Canal at the A82 Laggan swing bridge have a high risk of fluvial flooding, and as such, these areas have a 10% chance (high risk) of flooding each year ([SEPA Flood Maps](#)).

Climate

The Climate Change (Scotland) Act 2009 sets out the target and vision set by the Scottish Government for tackling and responding to climate change ([The Climate Change \(Scotland\) Act 2009](#)). The Act includes a target of reducing CO2 emissions by 80% before 2050 (from the baseline year 1990). The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 amended the Climate Change (Scotland) Act 2009 to bring the target of reaching net-zero emissions in Scotland forward to 2045 ([Climate Change \(Emissions Reduction Targets\) \(Scotland\) Act 2019](#)).

The Scottish Government has since published its indicative Nationally Determined Contribution (iNDC) to set out how it will reach net-zero emissions by 2045, working to reduce emissions of all major greenhouse gases by at least 75% by 2030

([Scotland's contribution to the Paris Agreement: indicative Nationally Determined Contribution - gov.scot \(www.gov.scot\)](#)). By 2040, the Scottish Government is committed to reducing emissions by 90%, with the aim of reaching net-zero by 2045 at the latest.

Transport Scotland is committed to reducing carbon across Scotland's transport network and this commitment is being enacted through the Mission Zero for Transport ([Mission Zero for transport | Transport Scotland](#)). Transport is the largest contributor to harmful climate emissions in Scotland. In response to the climate emergency, Transport Scotland are committed to reducing their emissions by 75% by 2030 and to a legally binding target of net-zero by 2045.

Policies and plans

This Record of Determination has been undertaken in accordance with all relevant regulations, guidance, policies and plans, notably including the Environment and Sustainability Discipline of the Design Manual for Roads and Bridges ([Design Manual for Roads and Bridges \(DMRB\)](#)) and Transport Scotland's Environmental Impact Assessment Guidance ([Guidance - Environmental Impact Assessments for road projects \(transport.gov.scot\)](#)).

Description of main environmental impacts and proposed mitigation

Air quality

Construction activities associated with the proposed works have the potential to temporarily cause local air quality impacts. The main sources are likely to be dust generated by excavation and demolition of the generator cabin and emissions from transportation of materials, the presence of construction traffic and vehicles idling. As a result, there is potential for dust, particulate matter, and exhaust emissions to be emitted to the atmosphere. However, taking into account the nature and scale of the works and the following mitigation measures, the risk of significant impacts to air are considered to be low.

- Ancillary plant, vehicles and non-road mobile machinery (NRMM) will have been regularly maintained, paying attention to the integrity of exhaust systems. These will also be switched off when stationary to prevent exhaust emissions (e.g., there will be no idling vehicles).
- Cutting, grinding, and sawing equipment (if required) will be fitted or used in conjunction with suitable dust suppression techniques e.g., local exhaust ventilation system that fits directly onto tools.
- Regular monitoring (e.g., by engineer or Clerk of Works) will take place when activities generating air pollution are occurring. In the unlikely event that unacceptable levels of air pollution are emanating from the site, the operation will, where practicable, be modified and re-checked to verify that the corrective action has been effective. Actions to be considered include: (a) minimizing cutting and grinding on-site, (b) reducing the operating hours, (c) changing the method of working, etc.
- All delivery vehicles carrying material with dust potential will be covered when travelling to or leaving site, preventing the spread of dust beyond the work area.
- Material stockpiles will be reduced as far as is reasonably practicable by using a 'just in time' delivery system. All material will also be stored on made ground.
- Any stockpiled material on site will be monitored daily to ensure no risks of dust emissions exists.
- Materials will be removed from site as soon as is practicable.
- Good housekeeping will be employed throughout the work.
- Cement bags will remain closed when not in use to prevent cast off to the surrounding environment.

With the above mitigation measures in place, it is anticipated that any air quality effects associated with the proposed works are unlikely to be significant. This receptor is not considered further in this Record of Determination (RoD).

Cultural heritage

A82 Laggan swing bridge is located within the boundaries of the Caledonian Canal Scheduled Monument; however, the A82 Laggan swing bridge and its associated mechanical and electrical elements are excluded from the scheduled area. The majority of works will take place outside the boundary of the Scheduled Monument or on the swing bridge itself, which is not included within the scheduled area. However, a small amount of excavation for cabling and ducting works associated with installation of the new generator cabin will fall within the Scheduled Monument Area. Consultation with Historic Environment Scotland (HES) is currently ongoing to determine whether Scheduled Monument Consent (SMC) is required to permit these works. If required, no works requiring SMC will be carried out until SMC is in place.

Although the works also lie within the Blar Na Lélne Inventory Battlefield, all works are confined to previously engineered ground with minimal excavation required. Therefore, the likelihood of encountering historical artifacts associated with the Battlefield is considered to be low. Any advice from HES regarding the Battlefield will be followed.

It is assessed that the planned works will not adversely impact the cultural heritage value of the Scheduled Monument or any nearby sites of cultural heritage interest with the following mitigation measures in place:

- All requirements (e.g., SMC) advised by HES will be implemented. If required, BEAR Scotland will obtain SMC and/or other relevant consents and no works requiring these consents will take place until these are in place.
- All site personnel will be briefed of the importance of cultural heritage value within the area.
- 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 Scotland Environment team will be contacted for advice.
- Laydown areas will be sensitively located (e.g., on areas of made ground) to avoid areas of cultural heritage interest where possible.
- There will be no storage of plant, materials or equipment against buildings, bridges, walls or fences.

With the above mitigation measures in place, it is anticipated that any cultural heritage effects associated with the proposed scheme are unlikely to be significant. This receptor is not considered further in this RoD.

Landscape and visual effects

There will be a minor impact on the landscape character and visual amenity of the site as a result of the proposed works and presence of construction plant, vehicles, and TM (if required). The works will include deconstruction of the end-of-life swing bridge generator cabin and installation of the new generator cabin. The new cabin has been designed in mind with the character of the surrounding landscape; therefore, no significant visual changes to the local landscape are expected following completion of the works. Furthermore, the new cabin will be set back from the verges of the Caledonian Canal with the area reinstated into permeable ground for visitor use.

Works will be carried out in line with good practice measures for managing the construction environment as outlined in the SEMP as follows:

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

With the above mitigation measures in place, it is anticipated that any landscape and visual effects associated with the proposed works are unlikely to be significant. This receptor is not considered further in this RoD.

Biodiversity

The scheme is not situated within a 'sensitive area' designated for biodiversity features e.g., Special Area of Conservation, Special Protection Area, Ramsar, SSSI, etc. Although South Laggan Fen SSSI lies 10m east of the scheme, no works will take place within the boundary of the SSSI and Operation Requiring Consent (ORC) from NatureScot is not required to permit works. In addition, standard pollution control measures will be adhered to during works to prevent loss of containment to the surrounding environment. Therefore, no impacts to the qualifying features of the SSSI are expected as a result of the works.

Although the swing bridge has potential to support nesting birds, the works are programmed to commence outside of the breeding bird season. Phase 3 of the works will still be ongoing at the beginning of March when the breeding bird season

starts, although construction activities on site will be completed by this time and site staff will be undergoing training. As such, any birds that choose to nest within the proximity of the scheme will be appropriately acclimatised to the ongoing disturbance from the proposed works. Any such instance of birds establishing nests during the works phase will be reported to BEAR Scotland's Environment Team, who will advise on any suitable mitigation required.

Previous site visits did not identify any INNS, invasive native perennials or injurious weeds within the scheme extents. There is no requirement to import topsoil and the excavated material will be reused on the site. As such, there is limited potential to spread or introduce INNS, invasive native perennials, or injurious flowering plant species.

Pollution controls and good practice measures to reduce impacts of works on the local environment will be detailed in the Site Environmental Management Plan (SEMP) and adhered to on site. Any protected species in the area are likely to be accustomed to road noise on the A82, boat traffic on the Caledonian Canal, and operation of the swing bridge. Therefore, with the following mitigation measures in place, the risk of significant impacts on biodiversity are considered to be low:

- Relevant toolbox talks for working with protected species will be included in the SEMP.
- No in-water works will be permitted. Works will be strictly limited to areas required for access and the works. Unnecessary encroachment onto terrestrial or aquatic areas will not be tolerated.
- No works will take place within South Laggan Fen SSSI or nearby AWI woodland.
- Site personnel will remain vigilant for the presence of any protected species throughout the works period. Should a protected species be noted during construction, works will temporarily halt until the species has sufficiently moved on. Any sightings of protected species shall be reported to the BEAR Scotland Environment Team.
- Artificial lighting, if required during low light levels, will be directed away from road verges, woodland, bridge and waterbodies as far as is safe and reasonably practicable.
- If an active bird nest (e.g., eggs or young present, adult sitting on nest) is identified on site, all works within 30m of the nest will stop until the BEAR Scotland NW Environment Team can provide advice.
- 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.

- A 'soft start' will be implemented on site each day. This will involve switching on vehicles and checking under/around vehicles and the immediate work area for mammals prior to works commencing to ensure none are present and that there is a gradual increase in noise.
- If fencing is utilised at any point during the works, a gap of 200mm from ground level will be provided, allowing free passage for mammals and preventing entrapment.

Taking into account the nature and scale of the works and the good site practice mitigation measures which will be adopted during the works, it is anticipated that any biodiversity effects associated with the proposed works will not be significant. This receptor is not considered further in this RoD.

Geology and soils

The scheme is not located within a GCRS or geological SSSI. Although Phase 1 works will entail excavation to install ducting and cables for the new generator cabin, this will be on engineered ground. In addition, any excavations will be carried out with good practice measures detailed in the SEMP as follows:

- Excavated material will be reused within the scheme extents.
- Upon completion of the works, any damage to the local landscape will be reinstated as much as is practicable.
- Mitigation measures to prevent contamination of soils through loss of containment will be strictly adhered to.
- The parking of machinery/vehicles and storage of equipment on grass will be minimised as far as is reasonably practicable.
- All relevant soil management toolbox talks will be included in the SEMP and sediment control measures will be in place to prevent soil eroding into the unnamed waterbody and travelling downstream.
- Additional pollution prevention measures as outlined in Road drainage and the water environment will be adhered to during construction.

With the above mitigation measures in place, it is anticipated that any geology and soils effects associated with the proposed works are unlikely to be significant. This receptor is not considered further in this RoD.

Material assets and waste

During construction, there will be a temporary impact as a result of material consumption and waste production. However, materials will be sourced locally where possible and the following mitigation measures will be put in place:

- Materials will be sourced from recycled origins as far as reasonably practicable within design specifications.
- Care will be taken to order the correct quantity of required materials to prevent the disposal of unused materials.
- Where possible, minimal packaging will be requested on required deliveries to reduce unnecessary waste and production of packaging materials.

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.
- 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 will 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 will be informed that littering is not 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: Road Drainage & Water Environment.
- A copy of the duty of care paperwork will be provided and filed appropriately in accordance with the Code of Practice (as made under Section 34 of Environmental Protection Act 1990 as amended).
- Any contaminated ground as a result of the works will be removed and transferred off site as special waste.
- Any special waste (if generated) will be removed from site by a licenced waste carrier. Special waste will not be mixed with general waste and/or other recyclables.

With the above mitigation measures in place, it is anticipated that any material assets and waste effects associated with the proposed works are unlikely to be significant. This receptor is not considered further in this RoD.

Noise and vibration

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

- The best practicable 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.
- Where possible, inherently quiet plant will 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.
- 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 will be operated in a mode that minimises noise emissions and will have been maintained regularly to comply with relevant national and international standards.

With the above mitigation measures in place, it is anticipated that any noise and vibration effects associated with the proposed works are unlikely to be significant. This receptor is not considered further in this RoD.

Population and human health

During construction, activities undertaken on site have the potential to have temporary adverse impacts on local residents, vehicle travellers, and NMUs. TM is not expected to be required as the works are around / beneath the bridge. Pedestrians and NMUs will be accommodated within any TM if required. The Caledonian Canal is closed to boat navigation from 4th November 2024 – 21st March 2025, which has been approved by Scottish Canals. The works will be undertaken outwith the season for canal travelling and the works will not impact travellers on A82. Furthermore, following the works, the swing bridge gate operation will be improved which will have a positive impact on boat travellers following the completion of the works.

Following the existing cabin demolition, the area will be reinstated into permeable ground in use for Caledonian Canal visitors, therefore increasing visibility of the bridge and the canal.

A number of properties lie within 300m of the scheme, with the nearest of these located just 50m from the scheme extents and therefore there is potential for disturbance from noise and vibration.

With the following mitigation measures in place, the risk of significant impacts on population and human health is considered to be low:

- Works are currently programmed for daytime hours. The works schedule and any changes to this will be communicated to local residents prior to and throughout the programme.
- Given the proximity of urban development to the scheme extents, the Toolbox Talk TTN-042 Being a Good Neighbour will be briefed prior to works commencing.
- Appropriate provisions / measures will be implemented within the traffic management to allow the safe passage of NMUs of all abilities through the site (if required).
- Journey planning information will be available for drivers online at the [trafficscotland.org](https://www.trafficscotland.org) website. Journey planning information will also be available for drivers online through BEAR Scotland's social media platforms.

With the above mitigation measures in place, it is anticipated that any population and human health effects associated with the proposed works are unlikely to be significant. This receptor is not considered further in this RoD.

Road drainage and the water environment

During the works, there is potential for temporary impacts on the water environment. Potential changes in water quality from pollution events (either by accidental spillage of sediments, particulate matter, chemicals, fuels or by mobilisation of these in surface water caused by rain/flooding) during works have the potential to have a direct or indirect effect on the surrounding waterbodies. The following mitigation measures will be put in place to reduce the risk of pollution incidents as a result of works:

- The scheme will not entail any in-stream works.
- Standard working practices to comply with The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) for works in or near water are detailed in the SEMP and will be adhered to on site.
- No discharges into any watercourses or drainage systems will be permitted. Appropriate containment measures will be in place to prevent any loss of construction materials or sediment into the water environment.
- Pollution prevention measures will be checked daily and more regularly during periods of heavy rainfall to ensure they remain effective.
- An incident response (contingency) plan will be put in place to reduce the risk from pollution incidents or accidental spillages. All necessary containment equipment, including suitable spill kits (for oil and chemicals) will be available on site, quickly accessible if needed, and staff trained in their use.
- All spills will be logged and reported. In the event of any spills into the water environment, all works will stop, and the incident will be reported to the project manager and the BEAR Scotland Environmental Team. SEPA will be informed of any such incident as soon as possible using the SEPA Pollution Hotline.
- All plant and equipment will 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.
- Storage of hazardous material, oil and fuel containers will be distanced more than 10m away from any watercourses.
- If required, a designated refuelling area will be identified. Fuel bowsers will be stored on an impermeable area and will be fully bunded. This will be distanced more than 10m from any watercourses.
- During refuelling of smaller mobile plant, a funnel will be used, and drip trays will be in place. Care will be taken to reduce the chance of spillages. Spill kits will be quickly accessible to capture any spills should they occur. The ground / stone

around the site of a spill will 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 will have bunding with a capacity of 110%. If these are not banded then drip trays must also be supplied beneath the equipment with a capacity of 110%.
- All hazardous material utilised on site is required to undergo assessment under the Control of Substances Hazardous to Health (COSHH) Regulations 2002. These assessment(s) will contain a section on environment which highlights any precautions and mitigation requirements.

With the above mitigation measures in place, it is anticipated that any road drainage and the water environment effects associated with the proposed works are unlikely to be significant. This receptor is not considered further in this RoD.

Climate

During the works there is potential for impacts as a result of the emission of greenhouse gases through the use of equipment, vehicles, material use and production and transportation of materials and wastes. However, considering the nature, short-term duration, size and scale of the scheme, and the mitigation detailed below, the risk of significant impacts to climate are considered to be low.

Proposed climate mitigation measures:

- All mitigation measures detailed within 'Air Quality' and 'Material Assets and Waste' will be adhered to.
- BEAR Scotland will adhere to its Carbon Management Policy.
- Where possible, materials will be sourced locally to reduce greenhouse gas emissions associated with materials movement, and waste will be disposed at local landfill, where required.

Vulnerability of the project to risks

The works will be programmed as far as is reasonably practicable to avoid periods of adverse weather or heavy rainfall. Upon completion of the cabin and generator works, the surrounding area will be reinstated to permeable condition, which will improve surface drainage on site. Therefore, increased flooding issues at the scheme extents are not anticipated following the works.

No TM is anticipated on the A82 carriageway live lanes; therefore no impacts on A82 road users are expected. The works are around and beneath the bridge and relevant

works safety zones will be in place. Access to pedestrian and NMUs routes will be maintained. Access to the nearby residential property will be maintained.

The works within on the A82 Laggan swing bridge will be undertaken out with the Caledonian Canal operation season and as such the works impact on boat traffic within the canal will be negligible.

A SEMP will be put in place which will set out a framework to reduce adverse impacts from construction activities on sensitive environmental receptors. The SEMP will set out the commitments and constraints and will identify the procedures and measures that will be used to manage and control these aspects. The Contactor will be required to comply with all conditions of the SEMP.

These measures, along with mitigation measures and standard working practices, will be detailed in the SEMP and adhered to on site. The vulnerability of the project to risks of major accidents and disasters is considered to be low.

Assessment cumulative effects

The proposed works are not anticipated to result in significant environmental effects. Due to the nature of the proposed works, no cumulative effects are anticipated with any other developments in the vicinity. A search of the Highland Council Planning Portal ([Map Search](#)) identified no approved planning applications within 300m of the scheme, in the last 6 months.

A search of the Scottish Roads Works Commissioner website ([Map Search](#)) has identified that no other roadworks are currently ongoing, or noted as being planned, on the trunk road at the same time as this scheme. Due to the nature of the proposed works, no cumulative effects are anticipated with any other developments in the vicinity.

BEAR Scotland programme all of their proposed works in line with appropriate guidance and contractual requirements. All schemes are programmed to take into account existing and future planned works, with a view of limiting any cumulative effects relating to TM. As a result of this exercise, where a potential for cumulative impacts is identified, BEAR Scotland will reprogramme schemes to avoid / limit any cumulative effects or will utilise existing TM to complete multiple schemes at once. This approach allows BEAR Scotland to effectively manage the potential cumulative effects as a result of TM, resulting in minimal disruption to users of the Scottish trunk road network.

Overall, it is unlikely that the proposed works will have a significant cumulative effect with any other future works in the area.

Assessments of the environmental effects

As detailed in the Description of Main Environmental Impacts and Proposed Mitigation section within this Record of Determination, there are no significant effects anticipated on any environmental receptors as a result of the proposed works.

Statement of case in support of a Determination that a statutory EIA is not required

This is a relevant project in terms of section 55A(16) of the Roads (Scotland) Act 1984 as it is a project for the improvement of a road and the completed works (together with any area occupied by apparatus, equipment, machinery, materials, plant, spoil heaps, or other such facilities or stores required during the period of construction) do not exceed 1 hectare in area, but are situated within the Scheduled Monument 'Caledonian Canal, Laggan Locks to Loch Oich' (SM6494) which is a sensitive area within the meaning of regulation 2(1) of the Environmental Impact Assessment (Scotland) Regulations 1999.

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

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

Characteristics of the scheme:

- The scheme involves routine maintenance on A82 Laggan swing bridge and its mechanical and electrical components. The works will improve the operation of the A82 Laggan swing bridge.
- Construction activities are restricted to an area of 0.15ha along a 60m stretch of A82 out with the tourist peak season.
- The works will be undertaken during the daytime over three working phases with each phase programmed to avoid possible impacts on boat traffic and ecological receptors.
- The scheme proposes to replace the bridge generator cabin, which is designed in line with the character of the surrounding landscape.
- The risk of major accidents or disasters is considered to be low.

- Measures will be in place to ensure appropriate removal and disposal of waste.

Location of the scheme:

- Some works during Phase 1 are located within the 'Caledonian Canal, Laggan Locks to Loch Oich' Scheduled Monument. Consultation with HES is ongoing to determine if SMC is required to permit works within the boundary of the Scheduled Monument. If required, no works requiring SMC will commence until SMC is in place.
- Phases 2 and 3 of the works are confined to the A82 Laggan bridge and its elements which are excluded from the scheduled area.
- The works lie within the Blar Na Lélne Inventory Battlefield; however, all works are confined to previously engineered grounds with minimal excavation required. HES have been advised on the works and any advice or requirements will be followed.
- The scheme does not lie within 2km of a European site. There is also no connectivity with a European site out with the 2km buffers.
- South Laggan Fen SSSI (EU Site Code: 135097) lies 10m east of the scheme extents, which is designated for transition open fen habitat. No works will take place within the SSSI and as such no ORC from NatureScot is required.
- An access road to a residential property lies adjacent to the working area. Access to the property will be maintained throughout the works.
- A pedestrian and NMUs route, which accommodates National Cycle Network (NCN) route Nr73, Core Path 'South Laggan to Loch Oich on Great Glen Way' (ID: 96) and 'Great Glen Way 3: Laggan to Fort Augustus' walking route lies within the scheme extents. Works will be undertaken out with the tourist peak season and access will be maintained.
- The site compound will be located on made ground.

Characteristics of potential impacts of the scheme:

- The works will not result in negative impacts on the Caledonian Canal Scheduled Monument or Blar Na Lélne Battlefield provided that good practice measures and any advice from HES are followed.
- Any impacts on air quality or noise levels are minor, short-term and temporary during the construction period. With mitigation measures in place, the potential impacts on local receptors are minor and not significant.
- Any short-term impacts on pedestrians, cyclists or equestrians are considered negligible, particularly as works will be completed outside of the key tourist period.
- The works will not result in loss of habitat as all works will take place on the swing bridge or on surrounding engineered ground. Following completion of the generator cabin works, the area will be reinstated into permeable ground in use for Caledonian Canal visitors.

- No in-water works will be undertaken. However, there is a potential for an impact on water quality during construction as a result of potential spillage of fuels, oils and mobilisation of silt. However, with pollution prevention measures in place, this risk is considered to be negligible.
- No impacts on breeding birds are anticipated; the majority of works will be undertaken out with the bird breeding season. Works in March will consist of staff training upon completion of construction and any birds that may nest in the area at the start of the bird breeding season will be in acceptance of the ongoing disturbance levels within the area.
- With pollution prevention measures in place, there are no risks to human health from water contamination or air pollution.
- No impacts on geology and soils are anticipated.
- During construction, there will be a temporary impact as a result of materials and waste.

Annex A

“sensitive area” means any of the following:

- land notified under sections 3(1) or 5(1) (sites of special scientific interest) of the Nature Conservation (Scotland) Act 2004
- land in respect of which an order has been made under section 23 (nature conservation orders) of the Nature Conservation (Scotland) Act 2004
- a European site within the meaning of regulation 10 of the Conservation (Natural Habitats, &c.) Regulations 1994
- a property appearing in the World Heritage List kept under article 11(2) of the 1972 UNESCO Convention for the Protection of the World Cultural and Natural Heritage
- a scheduled monument within the meaning of the Ancient Monuments and Archaeological Areas Act 1979
- a National Scenic Area as designated by a direction made by the Scottish Ministers under section 263A of the Town and Country Planning (Scotland) Act 1997
- an area designated as a National Park by a designation order made by the Scottish Ministers under section 6(1) of the National Parks (Scotland) Act 2000.



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