



**TRANSPORT  
SCOTLAND**  
CÒMHDHAIL ALBA

# **Environmental Impact Assessment Record of Determination**

**A83 Tarbet to Arrochar  
Lighting Refurbishment**

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## Project Details

### Description

BEAR Scotland has been commissioned by Transport Scotland to refurbish a section of existing lighting within Tarbet, at the junction between the A82 and A83 carriageways. Works will include the replacement of existing lighting columns, cabling, signs and control pillar. Exact locations of new pillars are yet to be confirmed however these will remain within the carriageway verges (likely on both the northbound and southbound carriageways), in proximity to the location of removed columns.

Construction activities will include the following:

- Excavation of new column holes and tracks for new cable and ducting routes.
- Laying of ducting and cabling in ground for columns and signs.
- Installation of new proposed 8m columns, lanterns and cut-outs.
- Installation of new sign poles, lights and signs.
- Connection of new circuits, and associated testing.
- Removal of existing columns and sign poles.

The scheme covers an approximate area of 0.62 ha.

The works are currently programmed to be completed within the 2023/2024 financial year (April 2023 to March 2024 inclusive), with a proposed construction date of 20<sup>th</sup> June 2023. Works are expected to be completed over 8-10 weeks, operating between the hours of 08:00 and 16:00 (Monday to Friday only).

The works will be facilitated by weekday single lane closures and two-way traffic signal controls.

### Location

The works are located at the junction of the A82 and A83 carriageways within the village of Tarbet, Argyll and Bute (Figure 1). The scheme has the following National Grid References (NGRs):

- Scheme Start: NN 32001 04354
- Scheme End: NN 31572 04492

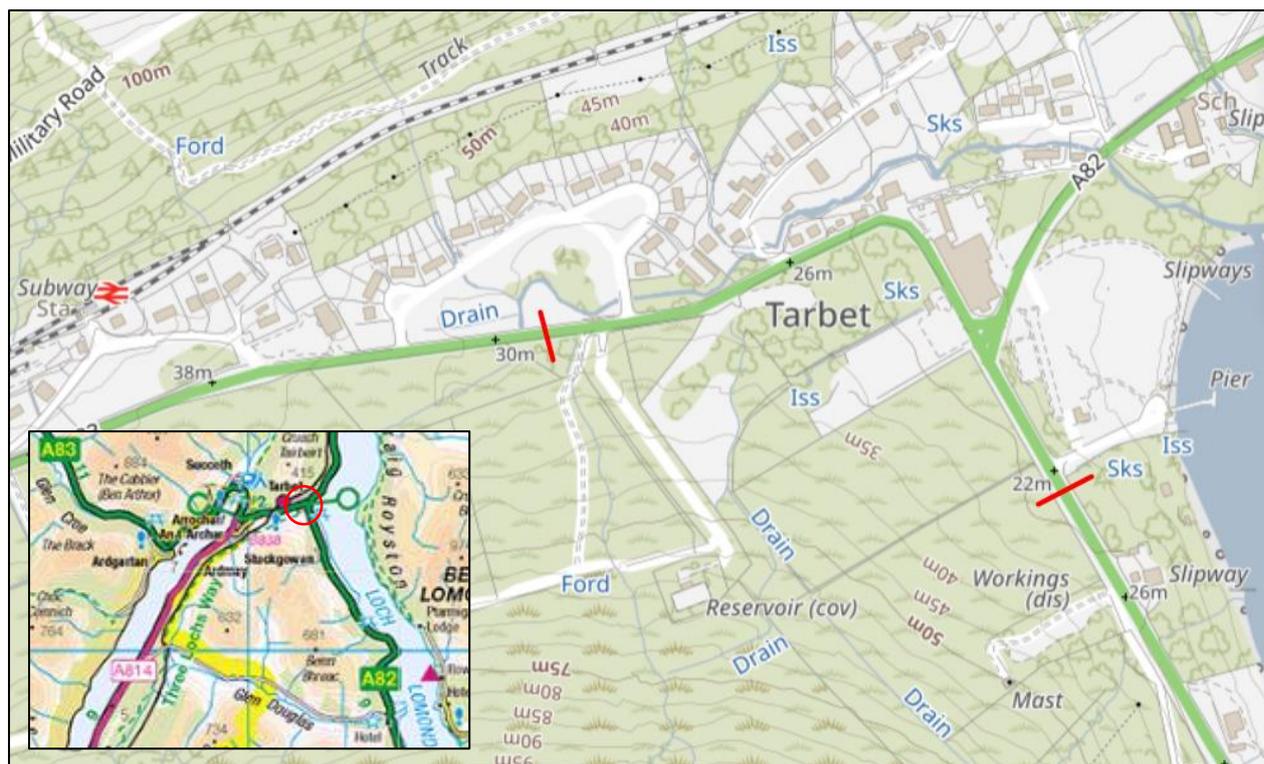


Figure 1. Location of the proposed lighting refurbishment scheme at Tarbet. Source: BEAR Scotland. F108 – Environmental Assessment Request (Scheme ref: 23-NW-01637-E).

## Description of local environment

### Air quality

Argyll and Bute Council have not declared any Air Quality Management Areas (AQMA) ([Air Quality Scotland](#)). No Air Quality Monitoring Stations are located within 10km of the works ([Air Quality Scotland](#)).

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

The scheme is located at the A83/A82 junction. Average Annual Daily Flow (AADF) in 2021 for the A82 carriageway at Inverbeg (7km south of the scheme) accounted for 7,166 vehicles, and AADF for the A83 carriageway 800m west of the scheme accounted for 3,612 vehicles ([Road Traffic Statistics](#)). Heavy goods vehicles (HGVs) accounted for 8% and 10.5% of total vehicles, respectively.

Baseline air quality at the scheme is likely to be primarily influenced by traffic along the A82 and A83 trunk roads, with secondary sources likely to arise from day-to-day urban activities associated within Tarbet. Pollution levels in the general vicinity of works are anticipated to be low due to the semi-rural nature of the scheme location.

## Cultural heritage

A desktop study using [PastMap](#) has highlighted six Listed Buildings (Category B and C) within 300m of the scheme; the closest of which is the Tarbet Hotel (LB832) which is located adjacent to the southbound carriageway. At its nearest point, the building is separated from the A83 southbound carriageway by approximately 2m of paved pedestrian footpath.

Of lesser cultural heritage interest, approximately 30 Canmore records and 40 Historic Environment Records (HERs) are also located within 300m of the scheme. The A83 carriageway falls within the boundary of several of these records, however no items within these recorded features have been assigned protected status.

There are no Scheduled Monuments, Garden & Designed Landscapes, Conservation Areas, World Heritage Sites or Inventory Battlefields identified within 300m of the scheme.

## Landscape and visual effects

The scheme is located on the A82/A83 within Tarbet, Argyll and Bute. Land cover surrounding the scheme is a combination of urban development, grassland, and woodland (broadleaved deciduous and non-riverine). ([Scotland's Environment](#)).

The works are located within Loch Lomond National Scenic Area (NSA) and Loch Lomond and the Trossachs National Park (LLTNP) ([SiteLink](#)). These sites are designated for the same Special Qualities, which are listed below:

### 1.0 General Qualities

- A world-renowned landscape famed for its rural beauty
- Wild and rugged highlands contrasting with pastoral lowlands
- Water in its many forms
- The rich variety of woodlands
- Settlements nestled within a vast natural backdrop
- Famous through-routes
- Tranquillity
- The easily accessible landscape splendour

### 2.0 Argyll Forest

- A remote area of high hills and deep glens
- A land of forests and trees
- Arrochar's mountainous and distinctive peaks
- The variety of glens

- The slender jewel of Loch Eck
- The dramatic pass of Rest and Be Thankful
- The seaside architecture of Kilmun and Blairmore

### 3.0 Loch Lomond

- Immensity of loch and landscape
- Two lochs in one
- A multitude of beautiful islands
- Distinctive mountain groups
- Ben Lomond, widely known, popularly frequented
- Banks of broadleaved woodland
- Peaceful side glens

### 4.0 Breadalbane

- Steep mountains and long glens
- Crossroads within remote mountain ranges
- A landscape of distinctive glens and straths
- The narrow Strathyre and Loch Lubnaig ribbon
- Beautiful Balquhidder
- Wide and straight Loch Earn
- The rocky pass of Glen Ogle
- Killin and the Falls of Dochart
- Expansive Glen Dochart
- Wide Strath Fillan
- Sinuous Glen Falloch

### 5.0 The Trossachs

- A traditional 'Gateway to the Highlands'
- A harmonious concentration of lochs, woods and hills
- Rugged Ben Venue, the centrepiece of the Trossachs
- Loch Katrine, the 'Queen of the Trossachs'
- A landscape of beautiful lochs
- The romance of the Trossachs
- The resort of Aberfoyle and the Duke's Pass
- The curious wooded hillocks of Aberfoyle
- The gateway town of Callander
- The tranquil Lake of Menteith

As works will involve replacement of existing lighting columns within a localised area of the trunk road boundary, no change to the landscape character or quality will occur, and as such no consultation with LLTNP was required.

The Landscape Character Type (LCT) within the scheme extent is given as Steep Ridges and Hills (LCT No. 250) ([Scottish Landscape Character Types](#)). The Steep Ridges and Hills LCT key characteristics are:

- Steep-sided hills, with pronounced summits, which rise dramatically from narrow sea lochs and deep glens.
- Craggier Cowal hills with upper slopes and summits broken with small rocky outcrops and knolls. These hills are deeply cut by glens and straths and by myriad smaller burns.
- Long and narrow sea lochs of Loch Long, and the more sinuous Loch Goil.
- Coniferous forest predominantly covers the lower slopes of the Cowal hills, extending high into narrow glens and merging with broadleaf woodlands.
- Generally smoother Luss Hills forming conical peaks and long narrow ridges and spurs. These hills are more open with only small areas of coniferous forestry on lower slopes.
- Hills often seen in conjunction with the higher Highland Summits.
- Some hills form key landmark features in views along the sea lochs.
- Settlement largely absent even from the narrow rocky coastal edges along the sea lochs and some parts feel relatively remote. MOD facilities on the fringes influence character in some areas.

## Biodiversity

The scheme does not fall within any sites designated for biodiversity features ([SiteLink](#)). The closest designated site is Loch Lomond Woods Special Area of Conservation (SAC), which is located 1.5km east of the scheme on the opposite shore of Loch Lomond.

The NBN Atlas also holds record of the invasive non-native species (INNS) Rhododendron (*Rhododendron ponticum*) growth under the same search criteria, located approximately 1.9km west of Tarbet. In addition, Transport Scotland's Asset Management Performance System (AMPS) has record of Japanese knotweed (*Fallopia japonica*) growth approximately 150m east of the scheme.

Habitat surrounding the scheme is a combination of urban development (including cultivated areas of gardens and parks), woodland, and grassland. Loch Lomond is located approximately 100m east of the scheme, and Tarbet Burn flows adjacent to the A83 carriageway approximately 5m north at its closest point.

Taking into account the lack of habitat diversity within the trunk road boundary due to the managed nature of the roadside verge, the proximity of urban development and high traffic density and fast-flowing traffic, it is considered unlikely that any mammal

species of conservation importance are associated with permanent habitat or resting places within the area. As such, a field survey has not been undertaken, and a desktop study has been deemed sufficient for this assessment.

An 11.79 ha area of ancient (of semi-natural origin) woodland (as recorded on the Ancient Woodland Inventory Scotland) is located approximately 80m south of the scheme, adjacent to the northbound A82 carriageway ([Scotland's Environment](#)).

## Geology and soils

The scheme does not fall within geologically designated Sites of Special Scientific Interest (SSSI), or Geological Conservation Review Sites (GCRS) ([SiteLink](#)).

The Generalised Soil Type at the scheme extents is humus-iron podzols ([Scotland's Soils](#)).

A desktop study using the British Geological Survey Map ([BGS GeoIndex](#)) identifies the local geology type as the following:

- Bedrock Geology: 'Beinn Bheula Schist Formation' (psammite and pelite), which is a metamorphic bedrock.
- Superficial Deposits: 'Till' (diamicton), which is a sedimentary superficial deposit.

## Material assets and waste

The proposed works entail refurbishment of existing carriageway column lighting within verges adjacent to the A82 and A83 carriageways. Materials used are likely to consist of:

- Passively safe lighting columns, including associated components (control pillar and signage);
- LED Lanterns;
- Cabling;
- Concrete; and
- Ducting.

Due to the nature of this scheme, wastes produced will be similar to the materials listed above and will also include any broken out or excavated material created during foundation works.

A Site Waste Management Plan is not required for this scheme.

## Noise and vibration

The A82 meets the A83 carriageway within the scheme extent. The scheme travels through the village of Tarbet in Argyll and Bute, as such there are a large number of residential and commercial properties located within 300m of the scheme. Many of these properties, including Tarbet Hotel and several residential and commercial properties, face directly onto the A83 and A82 within the scheme extent and are therefore afforded no screening from the area of works. Remaining properties are afforded some screening due to the presence of intervening properties and woodland. Arrochar Primary School is located approximately 240m east of the scheme.

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

Scotland's strategic noise map does not hold any modelled noise data for the A82 or A83 carriageways at the scheme extent ([Scotland's Noise](#)). Baseline noise levels are likely to be primarily influenced by traffic travelling along the trunk road, with secondary sources likely derived from day-to-day urban activities associated with Tarbet.

## Population and human health

The scheme traverses an entirely urban landscape and as a result there are several residential properties and hotels within the surrounding area, as well as several commercial and business premises. The closest properties are located adjacent to the A82 carriageway, and as such lack sufficient visual screening from the proposed works area.

There are multiple pedestrian facilities on the A82/A83 within the scheme extent. Sections of paved pedestrian footpath lie adjacent to both carriageways throughout the scheme extent, and several crossing points and bus stops are located adjacent to both carriageways throughout the scheme extent. There are no [core paths](#), [National Cycle Network](#) (NCN) routes or walking routes as listed on [WalkHighlands](#) within the scheme extents.

'Tarbet Cruise Port' and associated car park (which is likely popular with tourists), is located approximately 100m east of the scheme at the southern extent. One of two access points for this facility is located on the southbound A82 within the scheme extents. Several additional access points/junctions are located within the scheme extent, which give access to residential and commercial properties, and the local road network.

Traffic management (TM) will consist of lane closures and two/three-way temporary traffic lights. Access to pedestrian facilities may be disrupted throughout works however TM will be arranged as such that pedestrians will have full access through/around the area of works, and to nearby amenities.

The A82 Trunk Road, within the North West NMC, 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 A83 Trunk Road connects Tarbet with Lochgilphead, Kennacraig and Campbeltown. It commences at the A82 / A83 junction within Tarbet leading generally south-westwards for a distance of 158 kilometres to (and including) its junction with New Quay Street at the Campbeltown Ferry Terminal. The A83 is a single carriageway along its length.

## Road drainage and the water environment

The scheme lies approximately 100m west of Loch Lomond (ID: 100339) which has been classified by the Scottish Environment Protection Agency (SEPA) under the Water Framework Directive 2000/60/EC (WFD) in 2020 as having 'good ecological potential' ([SEPA Water Environment Hub](#)). Loch Lomond has been designated as a heavily modified water body on account of physical alterations that cannot be addressed without a significant impact on an airport or major transport route.

Tarbet Burn (unclassified by SEPA) is culverted below the A83 carriageway approximately 40m west of the scheme, and later flows adjacent to the A83 carriageway at distance of approximately 5m at its closest point. Tarbet Burn outflows into Loch Lomond.

Several roadside drains are culverted below and located in the vicinity of the A82/A83 within the scheme extent.

The scheme falls within the 'Cowal and Lomond' groundwater body, which has been classified by SEPA in 2020 as having 'Good' overall condition ([SEPA water environmental hub](#)). Cowal and Lomond groundwater body is also designated as a Drinking Water Protected Area (Ground).

Small areas on the A82 and A83 carriageways and adjacent verges within the scheme extents are recorded as being at high (10% chance of flooding each year) risk of surface water flooding ([SEPA Flood Map](#)).

## 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 CO<sub>2</sub> 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 (RoD) 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. Activities undertaken on site may cause dust and particulate matter 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.

- All plant, machinery and vehicles associated with the scheme will be maintained to the appropriate standards and will be switched off when not in use.
- 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 much as is reasonably practicable by using a 'just in time' delivery system. All material will also be stored on made ground.
- Green driving techniques will be adopted, and effective route preparation and planning shall be undertaken prior to works.
- Any stockpiled material on site will be monitored daily to ensure no risks of dust emissions exists.
- Materials shall be removed from site as soon as is practicable.
- Good housekeeping will be employed throughout the work.

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 RoD.

### Cultural Heritage

Although there are features of cultural heritage interest within 300m of the scheme extent, construction of the A82/A83 road corridors are likely to have removed any archaeological remains that may have been present. Therefore, the potential for the presence of unknown archaeological remains in the study area has been assessed to be low. Moreover, all works are restricted to the A82/A83 trunk road (including verges), and therefore the works do not include any alterations that would affect the historic and architectural character of these features, and will not result in any change physical change to nearby listed buildings. Some minor works will likely take

place directly adjacent to listed buildings; however, the works are required to ensure the safety of public users. The following good practice measures will be in place to reduce the risk of impacts to undiscovered features of cultural heritage interest:

- There shall be no storage of vehicles, plant, or materials against any buildings, walls or fences.
- Should any unexpected archaeological evidence be discovered, works will stop temporarily in the vicinity and the BEAR Scotland Environment Team contacted for advice.
- People, plant, and materials shall, as much as is reasonably practicable, only be present on areas of made / engineered ground. Where access out with these areas is required for the safe and effective completion of the scheme, it shall be reduced as much as is reasonably practicable and ideally be limited to access on foot. There shall be no storage of vehicles, plant, or materials against any buildings, walls or fences.

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

## **Landscape and visual effects**

There is potential for minor, temporary visual impacts to the local landscape during the construction phase as a result of obstructed views due to presence of the works (vehicles, machinery, operatives).

Proposed works will be situated within the A82/A83 carriageway boundaries (including adjacent verges) and will include replacement of existing stretches of carriageway lighting within Tarbet. These works are almost like-for-like, however new lighting columns are likely to be placed in different nearby locations during new installations. As such, a slight permanent visual change to the local landscape will occur, however this will be localised along the existing A82/A83 carriageways. Local receptors (specifically residential properties located adjacent to the carriageway) will likely have permanently altered views, however due to the minor nature of the change and restriction to the A82/A83 verges, any change is considered to be minor.

In addition, the following mitigation measures will be put in place during works:

- Throughout all stages of the works, the site will be kept clean and tidy, with materials, equipment, plant and wastes appropriately stored, reducing the landscape and visual effects as much as possible.

- The working area and site compound location will be appropriately reinstated following works (where not located within the A82/A83 carriageway boundaries).
- 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.
- Where applicable, upon completion of the works, any damage to the local landscape shall be reinstated as much as is practicable.
- 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

Loch Lomond Woods SAC is located 1.5km east of the scheme. Due to sufficient distancing and restriction to the A83/A83 carriageway boundaries, there is no potential for connectivity between the area of works and the qualifying features for which this SAC is designated.

The desktop study highlighted growths of INNS in the surrounding environment, with no records of INNS located within the scheme extent. However, there is potential for unrecorded growths to be present in proximity. Where works are required within or within proximity to INNS growths, there is potential for works to result in disturb and spread of these. INNS mitigation and relevant pollution controls will be in place to ensure there is no spread or loss of containment to the local environment.

During construction, activities undertaken on site could potentially have a temporary adverse impact on biodiversity as a result of an increased vehicle presence and the potential for disturbance to protected species and pollution of habitats.

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. Due to the residential setting of the scheme, any protected species in the area are likely to be accustomed to noise associated with traffic on the A82/A83 and nearby urban activities. Therefore, with the following mitigation measures in place, the risk of significant impacts on biodiversity are considered to be low:

- Works will be strictly limited to areas required for access and to carry out the works. Unnecessary encroachment onto terrestrial or aquatic areas will not be tolerated.

- All construction operatives will be briefed through toolbox talks prior to works commencing, which will be included in the SEMP. The toolbox talks will provide information on the legislation, general ecology, and best practice measures for relevant protected species and INNS.
- No works will take place within nearby woodland areas and no tree felling is currently planned to facilitate works.
- No in-stream works are permitted. All works with proximity of watercourses will adhere to best practice measures (see Road drainage and the Water Environment section below).
- Site personnel shall remain vigilant for the presence of any protected species throughout the works period. Should a protected species be noted during construction, works shall temporarily halt until the species has sufficiently moved on. Any sightings of protected species shall be reported to the BEAR Scotland Environmental Team.
- Artificial lighting (if required) will also be directed away from road verges, woodland, and waterbodies as far as is safe and reasonably practicable.
- Site personnel will remain vigilant for the presence of INNS or injurious weeds in road verges throughout the works period. Should any INNS be identified in working areas, works will be restricted to a 7m buffer of any growth where reasonably practicable.
- Where works are required to be undertaken within proximity of INNS growth, the following will apply:
  - No vehicles or plant are permitted to enter the verge unless absolutely necessary, and will instead be operated from the carriageway.
  - When a bucket from a vehicle or piece of plant has been operating within the verge, it shall be sufficiently cleared of soil prior to operating over any other area i.e. washed down while still overhanging the contaminated area.
  - Any tools or equipment that are used within this area shall be sufficiently cleared of any soils prior to being removed. All cleared material shall be suitably collected and deposited back into the contaminated area.
  - Any soils or wash water that inadvertently exit the verge will be collected and deposited back within the confines of the contaminated section of verge.
  - Movements of operatives within areas in close proximity to INNS growth will be kept to a minimum. Before leaving one of these areas, operatives will ensure that all Personal Protective Equipment (PPE), footwear, tools and plant are sufficiently cleaned and free of soil. This will ensure that no soils contaminated with an invasive non-native species are inadvertently taken off site, causing their spread.
  - Care shall be taken to ensure that wash water and cleared materials from PPE / equipment is appropriately contained and placed back within the contaminated area.

- Care shall be taken not to tread or track soils onto the carriageway surface, as this will increase the risk of invasive non-native species spread.
- 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. 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.
- 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.

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

## Geology and soils

Although works include excavation, construction activities are restricted to the already engineered layers of the A82/A83 carriageways and verges, and are not anticipated to have an adverse impact on geology and soils. With the following mitigation measures in place, the likelihood of significant impacts on the geology and soils is low.

- Excavated trenches will be backfilled.
- The parking of machinery/personnel and storage of equipment on road verges will be minimised as far as is reasonably practicable.
- Upon completion of the works, any damage to the local landscape (i.e., damage to grass verges) shall be reinstated as much as is practicable.
- Mitigation measures to prevent contamination of soils through loss of containment will be strictly adhered to.
- Multiple handling of soil derived from excavations will be reduced as much as possible.
- The extent of exposed soil and duration of exposure will be kept to the minimum required for the works.
- Excavated soils will be re-used on site as far as is reasonably practicable.
- 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**

There is potential for impacts as a result of resource depletion through use and transportation of new materials. 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 shall be requested on required deliveries to reduce unnecessary waste and production of packaging materials.

There is potential for impacts during works as a result of the improper storage or disposal of waste. The following mitigation measures will be put in place:

- The waste hierarchy (Reduce, Reuse, Recycle and Dispose) will be employed throughout the construction works.
- The subcontractor will adhere to waste management legislation and ensure they comply with their Duty of Care.
- Containment measures will be in place to prevent debris or pollutants from entering the surrounding environment.
- All wastes and unused materials will be removed from site in a safe and legal 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 provided to and retained by BEAR Scotland as early as possible.
- All appropriate waste documentation must be present on site and be available for inspection. 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).
- Re-use and recycling of waste will be encouraged, and the subcontractor will be required to fully outline their plans and provide documentary evidence for waste arising from the works (e.g., waste carrier's licence, transfer notes, and waste exemption certificates).
- Staff will be informed that littering will not be tolerated. Staff will be encouraged to collect any litter seen on site.
- Where applicable, all temporary signage will be removed from site on completion of the works.

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

Construction activities associated with the proposed scheme works have the potential to cause noise and vibration impacts through the use of equipment and construction vehicles for the proposed activities. The works will employ a daytime working pattern; this does not eliminate potential for noise disturbance to nearby sensitive receptors however will reduce potential for disturbance to sleep. The proposed scheme is anticipated to result in temporary minor adverse noise impacts. The following mitigation measures will be put in place:

- Due to the prolonged works period (up to 10 weeks), the local Environmental Health Officer will be notified in advance of the works.
- Local residents will be pre-notified in advance of the works, likely by a letter drop, which will contain details of the proposed timings and duration of the works, in addition to contact details for the Site Supervisor.
- The Best Practice Means, as defined in Section 72 of the Control of Pollution Act 1974, will be employed at all times to reduce noise to a minimum. On-site construction tasks shall be programmed to be as efficient as possible, with a view to limiting noise disruption to local sensitive receptors.
- All site personnel will be fully briefed in advance of works regarding the need to minimise noise during works and of the site-specific sensitivities.
- Operatives will be briefed using the 'Being a Good Neighbour' toolbox talk prior to commencement of the works.
- All plant, machinery and vehicles will be switched off when not in use.
- All plant will be operated in such a way that minimises noise emissions and will have been maintained regularly to the appropriate standards.
- Where fitted, and where permitted under Health and Safety requirements, white noise reversing alarms should be utilised during construction.
- Where ancillary plant such as generators are required, they will be positioned so as to cause minimum noise disturbance. Where deemed necessary, acoustic screens will be utilised.

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 may have temporary adverse impacts on local residents, vehicle travellers, and NMUs as a result of operational noise and delays due to traffic management measures. No local access is likely to be obstructed by presence of works or TM. Local residents in proximity to the scheme may experience visual disturbance due to lack of screening between the A82/A83 carriageways and nearby residential properties.

Road users will be informed of works through a media release, which will provide details of construction dates and times. The works will be of moderate duration (up to 10 weeks), however will move progressively along the full scheme extent. With the following mitigation measures in place, the risk of significant impacts on population and human health is considered to be low:

- The works schedule and any changes to this will be communicated to local residents prior to and throughout the programme.
- Appropriate provisions / measures shall be implemented within the traffic management to allow the safe passage of NMUs of all abilities through the site.
- Journey planning information will be available for drivers online at the [trafficscotland.org](http://trafficscotland.org) website. Journey planning information will also be available for drivers online through BEAR'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

There is potential for temporary impacts on the water environment due to operation of plant within and within proximity to watercourses, which may lead to 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). This may result in potential direct or indirect effects on surrounding waterbodies. The following mitigation measures will be put in place to reduce the risk of pollution incidents as a result of 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 Site Environmental Management Plan (SEMP) and will be adhered to on site.

- No discharges into any watercourses or drainage systems are permitted. Appropriate containment measures will be in place to prevent any loss of construction materials into the water environment.
- 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 must be present to make sure that the checks have been carried out.
- Storage of hazardous material, oil and fuel containers shall be distanced more than 10m away from any watercourses.
- If required, a designated refuelling area will be identified. Fuel bowsers shall be stored on an impermeable area and be fully bunded. This shall 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 bunded then drip trays shall also be supplied beneath the equipment with a capacity of 110%.

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

Construction activities associated with the proposed scheme works have the potential to cause local air quality impacts as a result of the emission of greenhouse gases through the use of vehicles and machinery, material use and production, and transportation of materials to and from site. The following mitigation measures will be put in place:

- BEAR Scotland will adhere to their Carbon Management Policy.

- Where possible, the works will be undertaken utilising a daytime work pattern to reduce the requirement for additional lighting.
- Local contractors and suppliers will be used as far as practicable to reduce fuel use and greenhouse gas emitted as part of the works.
- Where possible, materials will be sourced locally to reduce greenhouse gas emissions associated with materials movement, and waste will be disposed at local landfill.

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

## Major Accidents and Disasters

Small areas of the A82/A83 carriageways within the scheme extent have been highlighted as being at high (10% chance each year) risk of surface water flooding.

Works are restricted to the localised A82/A83 carriageway boundaries including the adjacent verges. The proposed works are anticipated to last up to 10 weeks. Any TM will be designed in line with existing guidance and will consist predominantly of single lane closures and traffic signal controls.

These measures, along with mitigation measures and standard working practices, will be detailed in the SEMP and adhered to on site.

The works will involve replacement of an existing length of lighting within Tarbet. As such, the works will not result in any change in vulnerability of the road to risk, or in severity of major accidents/disasters that would impact on the environment.

## Assessment of 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 Argyll and Bute Council Planning Portal ([Map Search](#)) identified no planning applications within 300m of the scheme.

A search of the Scottish Roads Works Commissioner's website ([Map Search](#)) has identified that no other road works are currently ongoing, or noted as being planned, on the A82/A83 trunk road in proximity 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 traffic management. As a result of this exercise, where a potential for cumulative impacts is identified, BEAR will reprogramme schemes to avoid / limit any cumulative effects or will utilise existing traffic management to complete multiple schemes at once. This approach allows BEAR Scotland to effectively manage the potential cumulative effects as a result of traffic management, 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 road safety and it is located within the Loch Lomond and the Trossachs National Park 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 EIA 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:

- Construction activities are restricted to the approximate 0.62ha area proposed works, in verges adjacent to the existing A82/A83 carriageways.

- The works will be temporary and will be localised to land directly adjacent to the existing carriageway.
- The works will result in slight permanent change; however any visual impact is not considered significant due to the location and nature of the scheme, and proximity to existing removed lighting posts.
- Containment measures of the working area will be in place to prevent debris or pollutants from entering the surrounding environment.
- Works are not expected to result in significant disturbance to protected species that may be present in the wider area.
- No in-combination effects have been identified.
- The risk of major accidents or disasters is considered to be low, with residual beneficial impacts for NMUs.

#### **Location of the scheme:**

- The scheme is located within LLTNP. As works will involve replacement of existing lighting features, no change to the Special Qualities for with the National Park has been designated are expected.
- The scheme will be located predominantly within the A82/A83 carriageway boundaries (including adjacent verges). No land take is required for the works.
- Any impacts to the local landscape during the construction phase will be minor, temporary and not considered significant. Residual impacts are anticipated to be minor and will be in keeping with surrounding features.
- The site compound will be located on made ground.

#### **Characteristics of potential impacts of the scheme:**

- Potential impacts from construction works are expected to be temporary, short-term, non-significant, and limited to the construction phase. Residual impacts are considered to be beneficial for the local population and NMUs which may use this stretch of carriageway.
- Measures will be in place to ensure appropriate removal and disposal of waste.
- The SEMP will include plans to address environmental incidents.
- No impacts on the environment are expected during the operational phase as a result of works. The works are expected to result in positive impacts on road users during the operational phase.
- Mitigation measures detailed above and in the SEMP are put in place with the objective to prevent and, if required, subsequently control any potential impacts on sensitive receptors.

## 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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