



**TRANSPORT  
SCOTLAND**  
CÒMHDHAIL ALBA

# **Environmental Impact Assessment Record of Determination**

## **A82 North of Pulpit Rock**

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## Project Details

### Description

BEAR Scotland have been commissioned by Transport Scotland to carry out resurfacing works at A82 North of Pulpit Rock. The works will consist of carriageway resurfacing and reinstatement of road markings for a length of 1865m (approximately 1.119ha).

The resurfacing procedure is as follows:

- Set up traffic management (TM) and mark out site
- Mill out old surface course
- Lay new surface course
- Roll surface and allow it to go off
- Mark out lining schedule on site
- Remove TM and open road

The works are currently programmed to be completed within the 2022/2023 financial year (October 2022 to March 2023 inclusive), however may be postponed and be completed early in the 2023/2024 financial year (April 2023 to September 2023). Works are expected to be completed over five nights during night time working hours. Traffic management (TM) is currently anticipated to consist of road closure with diversion and amnesties provided at 9pm, 10pm, 12am, 2am, 4am. However, if the programme changes, this may result in amendments to the exact TM requirements.

### Location

The scheme is located on A82 trunk road in the Argyll and Bute Council area, north of Pulpit Rock (Figure 1).

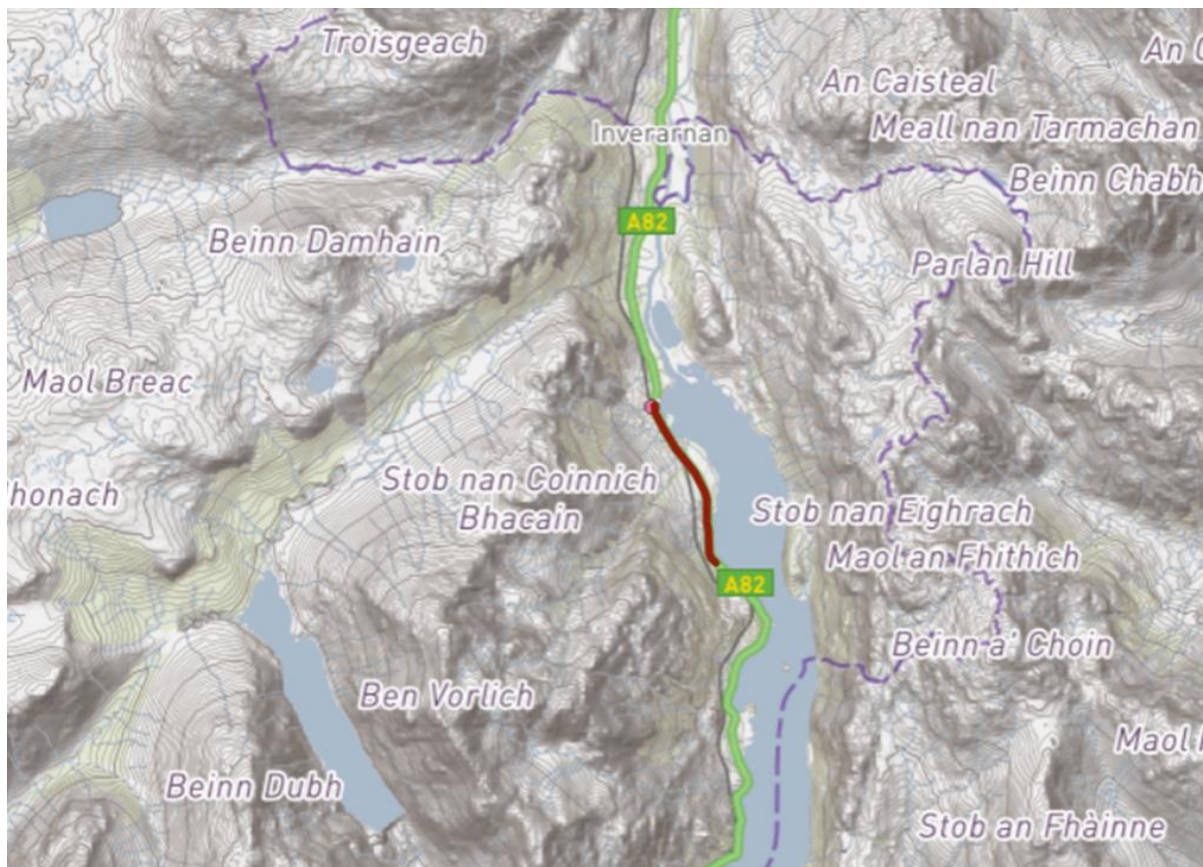


Figure 1. Location of the proposed resurfacing works at A82 North of Pulpit Rock.

## Description of local environment

### Air quality

The scheme is not located within an Air Quality Management Area (AQMA) ([Air Quality Scotland](#)) and no air quality monitoring stations are located in the vicinity of works ([Air Quality Scotland](#)).

There are no sites registered on the Scottish Pollutant Release Inventory (SPRI) ([Scotland's Environment](#)) for air pollutant releases within 1km of the scheme.

Baseline air quality at the scheme location is likely to be primarily influenced by traffic along the A82 trunk road.

### Cultural heritage

According to Historic Environment Scotland's PastMap ([PastMap](#)), the following listed buildings are located within 50m of the scheme extents:

- Ardlui telephone box, Category B, 20m from works

- Ardlui former Station Master's House, Category B, 15m from works
- Ardlui Railway Station building with subway and gates, Category C, 35m from works

There are multiple Historic Environment Records (HERs) and Canmore National Records (CNRs) located within 300m of the scheme extents ([PastMap](#)).

## Landscape and visual effects

The proposed scheme lies within Loch Lomond National Scenic Area (NSA) ([SiteLink](#)), which has following special qualities:

- 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.

The proposed scheme lies also within Loch Lomond and The Trossachs National Park ([SiteLink](#)), which has the following general special 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.

The Landscape Character Types (LCT) within the scheme extents is Straths and Glens with Lochs (LCT234) and Upland Glens – Loch Lomond & the Trossachs (LCT252). The Straths and Glens with Lochs LCT has the following key characteristics:

- Strongly enclosed by steep and often rugged hill slopes with lochs filling much of the space between, leaving only a narrow flatter margin against the loch shore.
- Lochs generally long and narrow.

- Narrow passes occur between some lochs. Subtle promontories and narrow beaches feature on loch shorelines, – these particularly appreciated in long views down the length of the lochs. Modification of natural lochs and water catchments in the Park, giving rise to a variety of structures including dams and aqueducts – many of these comprise distinctive 19th Century structures.
- Settlements often located at the head of lochs and major through roads are aligned through some of these glens and straths.
- Scattered traditional dwellings or clusters of buildings usually located close to alluvial pastures at the intersection with side glens and water courses on some loch shores.
- Tourism and recreation facilities along loch shores.
- Highland-type designed landscapes, grand houses, hunting lodges and associated features, policies and parklands occupy prime loch shore positions. Pier and timber boat houses are a common feature in association with houses and estates particularly on Loch Ard.
- Lochs are highly visible, with roads and cycle/walking routes aligned close to their shores.
- Long views are possible across open water to the Highland Summits and the combination of craggy towering hills and smooth water is an essential component of the scenic richness of the National Park.

The Upland Glens – Loch Lomond & the Trossachs LCT has the following key characteristics:

- Often narrow with little flat glen floor, strongly enclosed by steep hill slopes of the adjacent Steep Ridges and Hills and Highland Summits.
- Steep glen sides often patterned with rocky outcrops, boulders and screes but also extensively forested, particularly on lower slopes.
- Tributary burns and rivers cut deep gullies into slopes and many feature waterfalls and cascades, pools and rocky outcrops.
- Walled pastures sometimes occasionally occurring on lower (usually south-facing) slopes. Heather covers better drained areas and bright green flushes appear at spring lines on hill slopes.
- Some glens covered with extensive coniferous forestry.
- Notable ancient and semi-ancient woodlands of oak and birch in some glens, Natural regeneration of scrub woodland where grazing has declined as in the Luss Glens.
- Relict wood pasture and Caledonian pine woodlands evident in some areas.
- Scattered trees and native woodland trace the edges of burns.
- Sparsely settled but with some isolated farms in lower reaches of glens, these often south-facing.

- Significant cultural features in more open glens, including shielings and abandoned field systems.
- Areas of crofting evident on some lower slopes.
- Some important historic strategic routes for communications and accommodate key road and rail links today for example.
- Classic views channelled up and down the Glens, with steep side slopes framing landscapes that lie beyond them.

## Biodiversity

The National Biodiversity Network (NBN) Atlas ([NBN Atlas](#)) records the following protected species within 2km of the scheme during the past ten years. Only records with open-use attributions (OGL, CC-BY) were included in the search criteria:

- Eurasian red squirrel (*Sciurus vulgaris*)
- European otter (*Lutra lutra*)

The NBN Atlas holds no record of invasive non-native species (INNS) or injurious weeds within 2km of the scheme extents. The Botanical Society of Britain and Ireland (BSBI) Atlas ([BSBI Atlas](#)) records the presence of the following invasive non-native species (INNS) of plants, and injurious weeds using the same search criteria:

- Rhododendron (*Rhododendron ponticum*)
- Japanese knotweed (*Reynoutria japonica*)
- Himalayan balsam (*Impatiens glandulifera*)
- Broad-leaved dock (*Rumex obtusifolius*)
- Curled dock (*Rumex crispus*)
- Common ragwort (*Senecio jacobea*)
- Rosebay willowherb (*Chamerion angustifolium*)
- Spear thistle (*Cirsium vulgare*)
- Creeping thistle (*Cirsium arvense*)
- Field horsetail (*Equisetum arvense*)

There are no records of INNS or injurious weeds on the Asset Management Performance System (AMPS), Transport Scotland's record of assets on the trunk road network, within the scheme extents during the past five years.

The proposed scheme passes through woodland recorded on Ancient Woodland Inventory (AWI) of Scotland as 'Ancient (of semi-natural origin)' ([Scotland's Environment](#)).

Wetlands recorded on Scottish Wetland Inventory of Scotland as 'wet heaths' and 'wet grasslands' are located directly adjacent to the A82 carriageway within the proposed scheme extents ([Scotland's Environment](#)).

Habitat in the surrounding area is dominated by mixed deciduous and coniferous woodland, acid alpine, subalpine and extensive grasslands, and agriculturally-improved, re-seeded and heavily fertilised grassland, including sports fields and grass lawns ([Scotland's Environment](#)).

## Geology and soils

The scheme does not lie within a Geological Conservation Review Site (GCRS) ([SiteLink](#)). There are also no geological SSSIs with connectivity to the scheme extents ([SiteLink](#)).

The bedrock underlying the scheme is comprised of Beinn Bheula Schist Formation - Psammite and pelite, which is a metamorphic bedrock ([BGS Geology Viewer](#)). The superficial deposits underlying the south and central part of the scheme are recorded as Alluvial Fan Deposits - Gravel, sand, silt and clay, which are sedimentary deposits ([BGS Geology Viewer](#)). The superficial deposits underlying the north part of the scheme are recorded as Till – Diamicton, and Alluvium - Clay, silt, sand and gravel, which are both sedimentary deposits ([BGS Geology Viewer](#)).

The Generalised Soil Type beneath the scheme extent are Mineral Podzols and the Major Soil Group is Podzols ([Scotland's Soils](#)).

## Material assets and waste

The proposed works are required to resurface the worn carriageway and reinstate road markings. Materials used will consist of:

- Asphaltic material
- Road-marking paint
- Bituminous emulsion bond coat
- Milled in road studs

Wastes are anticipated to be planings from the carriageway surface course, which will be fully recovered for re-use in line with BEAR Scotland's Procedure 126: The Production of Fully Recovered Asphalt Road Planings. The Contractor is responsible for the disposal of road planings and this must be registered in accordance with a Paragraph 13(a) waste exemption issued by SEPA, as described in Schedule 3 of the Waste Management Licensing Regulations 2011. It is not yet known if the works will encounter coal tar contaminated road surfacing.



## Noise and vibration

Works are not located within a Candidate Noise Management Area (CNMA) or Candidate Quiet Area (CQA) ([Scotland's Noise Scotland's Environment](#)).

There is no noise modelled data available for the scheme extent ([Scotland's Noise Scotland's Environment](#)).

## Population and human health

The scheme is located within a rural area, in the vicinity of Ardlui village. There are multiple residential and commercial properties located within 300m of the scheme, with the closest ones located directly adjacent to the A82 carriageway in the central and northern part of the scheme.

There are no National Cycle Network Routes ([OS Maps](#)) or Core Paths ([Scotland's Environment](#)) within the scheme extent. There are no paved footpaths or pedestrian facilities on the A82 within the scheme extent.

The A82 trunk road links Glasgow to Inverness via Fort William, and is important for commercial, commuter, tourist and local traffic.

The nearest traffic count point (ID: 30769) on the A82 is located approximately 200m north of the scheme ([Road traffic statistics](#)). Vehicle count data taken from this point in 2020 shows an Average Annual Daily Traffic (AADT) count of 1456 motor vehicles, of which 118 were heavy goods vehicles. It should be noted that due to the Covid-19 pandemic the AADT count was lower in 2020 than in 2019. In 2019, the AADT was 3149 of which 125 were heavy goods vehicles.

## Road drainage and the water environment

There are several unclassified watercourses which cross the proposed scheme, and are connected to Loch Lomond (North) (ID: 100339). Loch Lomond (North) is a loch in the River Leven (Loch Lomond) catchment of the Scotland river basin district located directly adjacent to the proposed scheme. It was classified by SEPA in 2020 as being a heavily modified water body with 'Good ecological potential' ([SEPA water environment hub](#)).

The scheme lies within the Cowal and Lomond (SEPA ID: 150689) groundwater waterbody, which has been classified as having overall status of 'Good' ([SEPA water environment hub](#)), and is also a Drinking Water Protected Area (Ground) ([Scottish Government](#)).

The central part of the scheme, in the vicinity of an unclassified waterbody, has high risk of river flooding, which means that each year this area has a 10% chance of 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 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. 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 must be maintained to the appropriate standards and must 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 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 should 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 Record of Determination (RoD).

### Cultural heritage

The proposed works are not anticipated to have an adverse impact on cultural heritage as the works will be restricted to made ground within the A82 carriageway boundary and involve like-for-like replacement of the road surfacing material. There are no recorded features of cultural heritage within the works footprint. The following good practice measures will be in place to reduce the risk of impacts to undiscovered features of cultural heritage interest:

- 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 should, as much as is reasonably practicable, only be present on areas of made / engineered ground. Where access outwith these areas is required for the safe and effective completion of the scheme, it should be reduced as much as is reasonably practicable and ideally be limited to access on

foot. There should 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

The proposed scheme lies within Loch Lomond National Scenic Area (NSA) and Loch Lomond and the Trossachs National Park (LLTNP). However, as the proposed works are restricted to the A82 carriageway and consist of the like-for-like replacement of the road surface, consultation with NatureScot and LLTNP was not deemed necessary. There is potential for minor, temporary visual impacts to the local landscape during the construction phase as a result of littering or obstructed views due to vehicles and machinery. However, proposed works will be restricted to A82 carriageway and land use will not change as a result of the works. In addition, the following mitigation measures will be put in place during works:

- Throughout all stages of the works, the site must 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.
- Works are to avoid encroaching on land and areas where work is not required or does not have permission to do so. This includes general works, storage of equipment/containers and parking.
- Where applicable, upon completion of the works, any damage to the local landscape should 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

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

Although the scheme crosses woodland recorded on AWI, works will be restricted to the A82 carriageway boundary and will not entail any tree felling.

Although there are records of INNS and injurious weeds within 2km of the proposed scheme, there are no records of these within or adjacent to the scheme extents. In addition, all works are restricted to made ground within the A82 carriageway boundary and will entail like-for-like replacement of the road surfacing material and will not include earthworks or vegetation removal. The scheme does not require permanent or temporary land-take, accommodation works, site clearance, or locally-gained resources and there is no requirement to import topsoil. As such, there is limited potential to spread or introduce INNS, invasive non native perennials or injurious weeds.

Pollution controls will be in place to ensure there is no loss of containment to the local environment. 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 and the scheme is of short duration. Therefore, with the following mitigation measures in place, the risk of significant impacts on biodiversity is considered to be low:

- Works are to be strictly limited to areas required for access and resurfacing works. Unnecessary encroachment onto terrestrial or aquatic areas will not be tolerated.
- No tree felling or in-stream works are permitted.
- All construction operatives are to be briefed through toolbox talks prior to works commencing. The toolbox talks will provide information on the legislation, general ecology, and best practice measures for relevant protected species and/or INNS.
- Site personnel should remain vigilant for the presence of any protected species throughout the works period. Should a protected species be noted during construction, works should temporarily halt until the species has sufficiently moved on. Any sightings of protected species should be reported to the BEAR Scotland Environmental Team.
- If artificial lighting is required, it should be directed away from road verges, woodland, and waterbodies as far as is safe and reasonably practicable.
- 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 must be provided, allowing free passage for mammals and preventing entrapment.
- Although there are no recorded instances of INNS or injurious weeds within the scheme extents, site personnel should remain vigilant for the presence of INNS and injurious weeds in road verges throughout the works period. Should any

INNS be identified in working areas, no works may take place within 7m of these areas until the BEAR Scotland Environmental Team can provide further advice.

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 resurfacing works include milling of the existing carriageway surface, construction activities are restricted to made ground within the carriageway boundary 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 geology and soils is low.

- 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) should be reinstated as much as is practicable.
- Mitigation measures to prevent contamination of soils through loss of containment will be strictly adhered to.

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 should 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.
- Road planings will be re-used or recycled under a SEPA Paragraph 13(a) waste exemption and in line with BEAR Scotland's Procedure 126: The Production of Fully Recovered Asphalt Road Planings.
- All wastes and unused materials must be removed from site in a safe and legal manner by a licensed waste carrier upon completion of the works. The appointed waste carrier must 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.
- If the works encounter coal tar, then this will be appropriately processed in line with Transport Scotland's Guidance Note on Dealing with Coal Tar Bound Arisings ([Transport Scotland](#)). This will include:
  - Coal tar contaminated road planings will be classified as a Special Waste.
  - All waste will be appropriately segregated, with coal tar contaminated planing being kept separate from uncontaminated planings.
  - Coal tar contaminated road planings must be transported by a registered waste carrier and be accompanied by a SEPA-issued consignment note or code. SEPA must be notified, at least 72 hours before and no longer than one month before, prior to Special Waste leaving site. It must be sent to a facility that holds suitable pollution prevention and control permits and waste management licences. Copies of consignment notes must be retained for a period of three years.
  - Waste must be transported in a safe and secure manner to prevent the release of contaminated material en-route.

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 have the potential to cause noise and vibration impacts through the use of equipment and construction vehicles for the proposed activities. The works are anticipated to take place during night time hours. The proposed scheme is anticipated to result in temporary minor adverse noise impacts. The following mitigation measures will be put in place:

- 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.
- The Environmental Health Officer (EHO) and local residents will be notified of works and provided with a 24-hour contact number for the BEAR Scotland Control Room.
- On-site construction tasks should be programmed to be as efficient as possible, with a view to limiting noise disruption to local sensitive receptors.
- For any night works within 300m of residential properties, the noisiest works should be programmed to be completed before 23:00 each night where possible.
- 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.
- 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 non-motorised road users (NMUs) as a result of vehicle noise and delays due to traffic management measures. Local residents will be notified of works via letter drop and road users will be informed of works through a media release, which will provide details of construction dates and times, as well as diversion routes. The works will be of short duration and 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:



- Any changes of schedule must be communicated to local residents throughout the programme.
- Appropriate provisions / measures should 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.
- Local access to properties within the scheme extents will be maintained during construction.
- Two traffic types of traffic management (closure with diversions and amnesties) will be employed during the works to minimize disruption to road users.

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 resurfacing 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 or tidal movements) 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 will be detailed in the SEMP and adhered to on site.
- No discharges into any watercourses or drainage systems are permitted. Appropriate containment measures must 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 must be logged and reported. In the event of any spills into the water environment, all works must stop and the incident must be reported to the project manager and the BEAR Scotland Environmental Team. SEPA must be informed of any such incident as soon as possible using the SEPA Pollution Hotline.
- All plant and equipment must 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 COSHH material, oil and fuel containers should be distanced more than 10m away from any watercourses.
- If required, a designated refuelling area must be identified. Fuel bowsers should be stored on an impermeable area and be fully bunded. This should be distanced more than 10m from any watercourses.
- During refuelling of smaller mobile plant, a funnel must be used, and drip trays must be in place. Care must be taken to reduce the chance of spillages. Spill kits must be quickly accessible to capture any spills should they occur. The ground / stone around the site of a spill must be removed, double bagged and taken off site as special contaminated waste.
- Generators and static plant may have the potential to leak fuel and / or other hydrocarbons and must have bunding with a capacity of 110%. If these are not bunded then drip trays should 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.
- 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.
- BEAR Scotland participate in CEEQUAL.

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.

## Vulnerability of the project to risks

Part of the A82 within the central section of the scheme has a high risk (10% chance in any year) of river flooding.

Works are restricted to the made ground of A82 carriageway and any traffic management will be designed in line with existing guidance. The proposed works will last 5 nights and are anticipated to be undertaken during night time hours. Traffic management will consist of road closure with diversion and amnesties provided at 9pm, 10pm, 12am, 2am, 4am.

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. Any future BEAR Scotland schemes will be programmed to take into account already-programmed works and as such, any cumulative effect will be limited. In addition, a search of the Argyll and Bute Council Planning Portal ([Map Search](#)) confirmed that there are no planning applications within 300m of the scheme. 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, 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) exceed 1 hectare in area and are situated in whole in Loch Lomond NSA and Loch Lomond and the Trossachs National Park which are sensitive areas 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 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 works will be temporary and localised.
- 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.
- In the event that INNS are found on site, measures to prevent potential INNS spread will be implemented.

Location of the scheme:

- Although the works lie within the Loch Lomond National Scenic Area and Loch Lomond and the Trossachs National Park, due the nature and short duration of the works, the proposed scheme will not result in significant effects on this sensitive area.

- Any impacts to the local landscape during the construction phase will be minor, temporary and not considered significant. In addition, no operational impacts are anticipated.

Characteristics of potential impacts of the scheme:

- Any potential impacts of the works are expected to be temporary, short-term, non-significant, and limited to the construction phase.
- 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.
- 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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