



**TRANSPORT
SCOTLAND**
CÒMHDHAIL ALBA

Environmental Impact Assessment Record of Determination

A9 Berriedale Resurfacing

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Project Details

Description

BEAR Scotland has been commissioned by Transport Scotland to carry out resurfacing works at a location on the A9 within the village of Berriedale. The works will consist of carriageway resurfacing and reinstatement of road markings over a combined length of 412m (approximately 0.3 ha).

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
- Lining/studding may be carried out at a later date under mobile TM or lane closures

The works are currently programmed to be completed within the first half of the 2023/2024 financial year (April to November 2023 inclusive). Works are expected to be completed over five nights; however, changes in the programme may result in the need for day works. Traffic management (TM) is currently anticipated to consist of lane closures and convoy with a 10mph speed limit. However, if the programme changes, this may result in amendments to the exact TM requirements. Where required, alternative pedestrian routes will be included in the TM setup.

Location

The scheme is located on the A9, within the village of Berriedale, in the Highland Council region (Figure 1).



Figure 1. Location and scheme extent of the proposed resurfacing works at A9 Berriedale. Source: BEAR Scotland. F108 – Environmental Assessment Request (Scheme ref: 23-NW-0103-31).

Description of local environment

Air quality

The scheme is not located within any Air Quality Management Area (AQMA) and no air quality monitoring stations are located in the vicinity of works ([Air Quality Scotland](#)). The nearest air quality monitoring site to the scheme is located in Inverness, approximately 90km south of the scheme ([Air Quality Scotland](#)). Pollution levels in the general vicinity of works are anticipated to be lower than those at the monitoring station in Inverness due to the remote nature of the scheme location.

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 A9 trunk road as well as urban activities within Berriedale.

Cultural heritage

According to Historic Environment Scotland's PastMap ([PastMap](#)), there are two Scheduled Monuments within 300m of the scheme, however these lie 170m and

270m from the scheme, respectively. There are also fourteen Listed Buildings within 300m of the scheme. The nearest of these is the category B 'Berriedale War Memorial' (LB7969) which lies within 5m of the northbound carriageway within the scheme extent and is only separated from the trunk road by a 0.5m masonry stone wall. All remaining Listed Buildings are set back at least 10m from the scheme extent and cannot be accessed from the trunk road.

There are also several features listed on the Historic Environment Record (HER) and Canmore database within the trunk road boundary and also within 300m of the scheme. However, all works are restricted to the trunk road, with only 'like-for-like' replacement of road surface being undertaken, therefore the works do not include any alterations that would affect the historic and architectural character of any feature of cultural heritage interest.

There are no World Heritage Sites, Conservation Areas, Garden and Designed Landscapes or Inventory Battlefields within 300m of the scheme ([PastMap](#)).

Landscape and visual effects

The scheme is not located within a National Park (NP) or National Scenic Area (NSA) ([Sitelink](#)).

The Landscape Character Type (LCT) within the scheme extent is Strath - Caithness & Sutherland (no. 142), Coastal Crofts & Small Farms (no. 144) and High Cliffs and Sheltered Bays (no. 141) ([Scottish Landscape Character Types](#)). The Strath - Caithness & Sutherland LCT is characterised by:

- Straths range from fairly straight deeply incised troughs to more winding valleys with a number of minor side glens.
- River terraces and hummocky lower side slopes a common feature.
- Water is a key characteristic with straths accommodating a central river meandering across the floodplain, often traced by clumps of birch and alder.
- Lochs in some straths, where a string of small lochs add to the scenic richness of the lower strath.
- Areas of wetland often present on the strath floors.
- Smooth and fairly large pastures the predominant land cover on the floodplains of the straths, commonly enclosed by wire fences.
- Semi-improved pastures, heather and grass moorland and coniferous plantations covering lower side slopes.
- Increasing extent of moorland and woodland generally further up the straths, where the floodplain narrows and settlement is sparser.

- Smaller strip-fields present on often hummocky, lower side slopes and associated with croft houses arranged in linear groups raised on terraces above the floodplain and sometimes backed by woodland.
- Some crofts within the Straths more randomly dispersed or staggered on lower hill slopes.
- Occasional small farms located in the broader and more fertile parts of the straths.
- Settlement generally denser within the lower reaches of many straths, especially at bridging points, on the coast and close to major roads.
- Many areas rich in archaeology with cairns, roundhouses, brochs and old field systems, usually found on side slopes.
- Abandoned crofts, particularly within the upper straths and in narrow side glens.
- Focus in views from roads provided by a number of estate shooting lodges, and clustered, predominantly 19th Century, often estate style buildings.
- Narrow roads, commonly aligned along the edge of the floodplain, from which views are strongly channelled by the side slopes.
- Rounded Hills often forming prominent edges to the straths with shapely well-defined hills, providing a distinctive skyline and scenic backdrop.
- Highly scenic backdrop of mountains often revealed in some of the upper reaches of these straths.

The Coastal Crofts & Small Farms LCT is characterised by:

- Narrow, settled and farmed coastal fringe with subtle variations in topography, from long stretches of strongly contained coastal shelves and raised beaches, to smaller pockets at river mouths and squeezed between dunes and areas of Cnocan – Caithness & Sutherland.
- Pastures and occasional arable fields, most often divided by post and wire fences, with the division of fields marked by crop colour and texture rather than boundaries.
- Low stone walls enclosing fields on the shelf above the High Cliffs and Sheltered Bays between Dunbeath and Wick.
- Little woodland within the more exposed east and north Caithness coasts.
- Small woodlands and clumps of trees present at the outlet of more sheltered straths or along the eastern shores of Kyle of Tongue and Loch Eriboll.
- Settlement most concentrated where this Landscape Character Type broadens at the mouths of major rivers along the east coast, where larger farms and crofts are concentrated.
- Small, hunkered-down croft houses and outbuildings loosely clustered or sometimes aligned in a linear fashion on the top of terraces or ridges above the coast or a river floodplain.

- More dispersed settlement pattern on the east coast to the north of Brora.
- Newer housing most evident to the south of Brora with larger modern houses often infilling spaces between older croft houses and contrasting with the size and form of these original buildings.
- A number of settlements, often located at bridging points and at the junction with the straths, many with harbours particularly on the east coast of Sutherland and Caithness.
- Major communications routes on the east coast including the A9, the railway and transmission line aligned along the edge of this landscape.
- A number of historic sites including churches, castles, mills and cemeteries.
- Highly visible landscape, seen from major roads and, on the east Sutherland coast, the railway.
- Complex visual composition of views tending to focus on the detail of houses, field patterns and crops, yet with the wider context of backdrop hills and sea adding diversity.

The High Cliffs and Sheltered Bays LCT is characterised by:

- Duncansby Head, with high, fissured and blocky cliffs, jagged asymmetric rock stacks, arches and geos.
- Dunnet Head, with towering cliffs edged by low rocky reefs.
- Occasional inlets and coves, often with very deep and sheltered waters, and sometimes containing tiny harbours tucked between cliffs and not readily visible from the main coast road and settlement.
- Harbours on the east Caithness coast which have a strong association with settlements which are perched above the cliff.
- Moorland largely abutting this Landscape Character Type which is particularly open and sweeping to the east and north within Caithness.
- The most prominent and exposed headlands marked by lighthouses.
- Exhilarating experience of being precariously perched upon a high edge on the cliff tops, offering open elevated views and a perception of huge space.
- Views of turbulent currents at the juncture of the Pentland Firth and North Sea, heightening the sense of wildness experienced from the headland.
- The absence of development along the remote stretches of coast and a strong sense of naturalness creating a wild landscape character.

The scheme is located in a largely rural area on the A9, within the village of Berriedale. Land use surrounding the scheme consists of a small amount of urban development and larger areas of woodland further afield ([Scotland's Environment](#)).

Biodiversity

The A9 trunk road, within the scheme extents, spans the Berriedale and Langwell Waters which form part of the Berriedale and Langwell Waters Special Area of Conservation (SAC).

The scheme also lies approximately 140m west of the East Caithness Cliffs Special Protection Area (SPA) at its nearest point ([SiteLink](#)).

The scheme also lies approximately 140m west of the East Caithness Cliffs SAC at its nearest point ([SiteLink](#)).

The scheme also lies approximately 140m west of the Berriedale Cliffs biological Site of Special Scientific Interest (SSSI) at its nearest point ([SiteLink](#)).

The scheme also lies approximately 250m south of the Berriedale Water SSSI at its nearest point ([SiteLink](#)).

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, CC0, CC-BY) were included in the search criteria.

- Common pipistrelle (*Pipistrellus pipistrellus*)

The NBN Atlas also holds records of additional bird species within 2km over a 10-year period. Under the Wildlife and Countryside Act 1981, all wild birds and their active nests are protected ([NBN Atlas](#)).

The NBN Atlas does not hold any records of invasive non-native plant species (INNS) or injurious weeds under the same criteria ([NBN Atlas](#)).

Transport Scotland's Asset Management Performance System (AMPS) does not hold any records of INNS or injurious weeds within 300m of the scheme.

Habitats to the east of the scheme are dominated by a combination of grassland and temperate shrub heathland, whilst those to the west consist of mixed (mainly broadleaved) woodland and temperate shrub heathland. The Berriedale and Langwell Waters both flow beneath the A9 within the scheme extent and provide some riparian habitat. The Moray Firth is located to the east of the A9 (approximately 140m at its nearest point) and provides coastal habitats which include littoral sediments and coastal shingle.

There are several areas of woodland listed on the Ancient Woodland Inventory (AWI) within 300m of the scheme. All of these lie to the west of the scheme, with the

nearest area lying adjacent to the southbound carriageway at the southern scheme extent. These areas are largely 'Ancient (of semi-natural origin)', however there is approximately 42ha of 'Long-established (of plantation origin)' as well ([Scotland's Environment](#)). Works will be restricted to the A9 carriageway boundary and will not involve any tree-felling, therefore no impacts to AWI woodland are anticipated.

Geology and soils

The scheme does not lie within a Geological Conservation Review Site (GCRS) or geological Site of Special Scientific Interest (SSSI) ([SiteLink](#)).

There are no Local Geodiversity Sites (LGS) with connectivity to the scheme extents ([SiteLink](#)).

Bedrock within the scheme extent is comprised of Berriedale Sandstone Formation (Sandstone, siltstone and mudstone) which is a sedimentary bedrock ([BGS GeolIndex](#)).

Superficial deposits within the scheme extent are comprised of Devensian Till (diamicton) and Alluvium and River Terrace Deposits (gravel, sand, silt and clay) which are both sedimentary deposits ([BGS GeolIndex](#)).

Soils within the scheme extent are recorded as mineral podzols ([Scotland's Soils](#)).

As a result of the works taking place strictly within made ground within the A9 carriageway boundary, it has been determined that the proposed project does not carry the potential to cause direct or indirect impact to geology or soils. As such, impact has been assessed as being 'no change' and has been scoped out of requiring further assessment.

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 has been 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 (exemption number WML/XS/2005529). 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) ([TNAP](#)).

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

Baseline noise levels at the scheme location are likely to be primarily influenced by traffic along the A9 trunk road as well as urban activities within Berriedale.

Population and human health

There are several residential and commercial receptors within 300m of the scheme as the scheme extent travels through the village of Berriedale. Properties nearest to the scheme have no screening from the trunk road whilst those further afield are provided a degree of screening as a result of the topography of the land and arrangement of the trunk road within the scheme extent. Berriedale Old Cemetery also lies approximately 35m from the A9 at the northern scheme extent. There are several access roads which diverge from both carriageways of the A9 throughout the scheme extent as well as a number of laybys and small car parks.

One core path 'Berriedale Pier' (ID: 11310) crosses the A9 at the southern scheme extent ([Scotland's Environment](#)). There are no National Cycle Network (NCN) routes ([OS Maps](#)) or walking routes listed on WalkHighlands ([WalkHighlands](#)) within the scheme extent. There are also no paved pedestrian footpaths, in-use bus stops or other pedestrian facilities along the A9 within the scheme extent.

The A9 Trunk Road, within the North West NMC, connects Perth with Thurso. It commences immediately north of Inveralmond Roundabout in Perth leading generally northwards for a distance of 357 kilometres to its junction with an unclassified road leading to Holborn Head lighthouse at Scrabster. The A9 is a mixture of single carriageway, '2+1' carriageway and stretches of two-lane dual carriageway. The A9 north of Inverness is a single carriageway trunk road and is a key route to the far north of Scotland. This section of the A9 is also part of the popular North Coast 500 route (NC 500) which is popular with tourists and is likely to draw outdoor recreationists, especially during the summer months.

The nearest traffic count point (ID: 50719) on the A9 is located approximately 6km south of the scheme ([Road traffic statistics](#)). Vehicle count data taken from this point in 2021 shows an Average Annual Daily Traffic (AADT) count of 2,317 motor vehicles, of which 279 were heavy goods vehicles ([Road traffic statistics](#)).

Road drainage and the water environment

The A9 spans two waterbodies within the scheme extent, both of which have been classified by the Scottish Environment Protection Agency (SEPA) under the Water Framework Directive 2000/60/EC (WFD). Both the Berriedale Water (ID: 20053) and Langwell Water (ID: 20054) were classified by SEPA in 2020 as having an overall status of 'Moderate'. These watercourses converge approximately 40m east of the scheme to form the Berriedale Water (d/s A9) (ID: 20052) which was classified by SEPA in 2020 as having an overall status of 'High'.

From its confluence, Berriedale Water (d/s A9) flows for approximately 400m before discharging into the Achnacraig to Helmsdale coastal water body (ID: 200192). The Achnacraig to Helmsdale coastal water body forms part of the Moray Firth, is 166.6km² in area, and was classified by SEPA in 2020 as having an overall status of 'Good' ([SEPA water environment hub](#)).

The scheme falls within the 'Caithness' groundwater body which was classified by SEPA in 2020 as having an overall status of 'Good' and is a Drinking Water Protected Area (Ground) ([SEPA water classification hub](#)).

The section of the A9 which spans the Berriedale and Langwell Waters has a 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 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 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.

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

Although there are features of cultural heritage interest within the scheme extent and within 300m of the scheme, all works are restricted to the trunk road, with only 'like-for-like' replacement of road surface being undertaken, therefore the works do not include any alterations that would affect the historic and architectural character of any feature of cultural heritage interest. 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 will, 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 will be

reduced as much as is reasonably practicable and ideally be limited to access on foot. There will 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 littering or obstructed views due to vehicles and machinery. However, proposed works will be restricted to like-for-like resurfacing of the A9 carriageway and will be carried out over 5 nights and land use will not change as a result of the works. Therefore, the works will not create any significant change to the local landscape, and the works do not lie within a NP or NSA. 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 will be appropriately reinstated following works.
- Works will avoid encroaching on land and areas where work is not required or permission has not been granted. This includes general works, storage of equipment/containers and parking.
- Where applicable, upon completion of the works, any damage to the local landscape will 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 A9 trunk road spans the Berriedale and Langwell Waters SAC within the scheme extent, the high-level HRA assessment concluded that the works would not result in any likely significant effects (LSE) upon the qualifying feature of by virtue of the following factors:

- All works are restricted to made-ground within the footprint of the A9 trunk road, with only 'like-for-like' replacement of road surface being undertaken which will not involve any change of the natural landscape or its processes.
- There is no requirement for land take (or resources) or site clearance from within the SAC and no works are required within any part of the SAC.
- The works will not involve any in-stream works or any discharges to the natural water environment and therefore there will be no change to water quality.
- No significant dust, particulate matter, and exhaust emissions (DPMEE) sources will be introduced by the works, and standard pollution prevention measures will be in place during works.

Although the scheme lies 140m west of the East Caithness Cliffs SPA and SAC (at nearest point), all works are restricted to made ground within the A9 carriageway boundary, with only 'like-for-like' replacement of road surface being undertaken, and will not entail tree felling, excavations or other works within the boundary of the East Caithness SPA or SAC. The qualifying feature of the SAC is also non-mobile in nature. As no works will take place within the boundary of either of these sites, there will be no direct effects as a result of works. Potential effects are therefore limited to indirect effects as a result of disturbance or pollution. However, the works are currently programmed for night-time, both designated sites are set-back approximately 140m from the scheme and are suitably screened. The works will also move progressively along the scheme extent. There will also be no removal or destruction of potential habitat. Moreover, disturbance levels due to works are unlikely to be significantly higher than disturbance due to normal traffic on the A9 and it is thought that any birds in the area are likely to be habituated to existing levels of disturbance on the A9 due to traffic noise. Therefore, Likely LSE on the qualifying features of the SPA or SAC as a result of disturbance are not expected.

In addition, no in-stream works are required and there is limited connectivity between the scheme and the SPA and SAC via the Berriedale Water which is spanned by the A9 within the scheme extent. Consequently, there is limited pathway to effect on the marine environment due to pollution as the Berriedale Water flows for approximately 400m before discharging into the sea which forms part of both designated sites. Containment measures will be in place to prevent loss of materials or pollution into the watercourse and travelling downstream. Containment measures would be in place regardless of the presence of the designated site downstream, so these are not considered to be mitigation measures. As such, LSE on the qualifying features of the SPA or SAC are not expected as a result of works.

Although the scheme lies 140m west of the Berriedale Cliffs SSSI (at nearest point), the works are not expected to have a significant impact on the qualifying features of the Berriedale Cliffs SSSI for the same reasons outlined above in reference to the East Caithness Cliffs SPA and SAC.

Although the scheme lies 250m south of the Berriedale Water SSSI (at nearest point), all works are restricted to made ground within the A9 carriageway boundary, with only 'like-for-like' replacement of road surface being undertaken, and will not entail tree felling, excavations, or other works within the boundary of the Berriedale Water SSSI. The qualifying feature of the SSSI is also non-mobile in nature, therefore the works are not expected to have a significant impact on the Berriedale Water SSSI.

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. 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 resurfacing works. Unnecessary encroachment onto terrestrial or aquatic areas will not be tolerated.
- No tree felling or in-stream works will be permitted.
- All construction operatives will 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 INNS.
- 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 will be reported to the BEAR Scotland Environmental Team.
- Artificial lighting will 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 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.

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 will 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.
- Uncontaminated 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 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 will be present on site and be available for inspection. 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).
- 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 ([Coal Tar Guidance](#)). 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 will 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 will be sent to a facility that holds suitable pollution prevention and control permits and waste management licences. Copies of consignment notes will be retained for a period of three years.
- Waste will 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 works 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 overnight. 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) from the Highland Council will be notified of works.
- On-site construction tasks will 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.
- 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 will 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. 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:

- Appropriate provisions / measures will be implemented within the traffic management to allow the safe passage of NMUs of all abilities through the site.
- Access to pedestrian facilities will be maintained at all times, however works will be carried out during night-time working hours when it is expected that pedestrian footfall will be low.
- Local access to properties within the scheme extents will be maintained during construction.
- Journey planning information will be available for drivers online at the 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

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 will be 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 must 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 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 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 will 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.
- The requirement for additional lighting will be reduced as far as reasonably practicable.
- 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.

Major Accidents and Disasters

The section of the A9 which spans the Berriedale and Langwell Waters has a high risk of river flooding, which means that each year, this area has a 10% chance of flooding.

Works are restricted to the made ground of the A9 carriageway and traffic management will be designed in line with existing guidance. The proposed works are anticipated to last 5 nights. Traffic management will consist of lane closures and convoy with a 10mph speed limit. Where required, alternative pedestrian routes will be included in the traffic management setup, to minimise impact of the works on NMUs.

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 of cumulative effects

The proposed works are not anticipated to result in significant environmental effects. A search of the Highland Council Planning Portal ([Map Search](#)) records two planning application in the vicinity of works:

- 'Removal and re-lay existing slates and reclaimed slates to the roof, replace and install new rooflights, repair and replace rain water goods, reinstate glazed windows' (22/05243/FUL) – approximately 70m east of the scheme.

- 'Change of use from disused abattoir to holiday let' (22/05396/FUL) – 70m east of the scheme.

As of date of writing, the status of both planning applications are still 'under consideration'. The proposed resurfacing works will be carried out over 5 nights with standard noise mitigation measures in place and will be restricted to the A9 trunk road boundary. With these measures in place and due to the distance between the trunk road and the proposed planning applications, the risk of in-combination or cumulative impacts on environmental receptors is considered to be low. Aside from these two planning applications, there are no known projects currently with planning permission that have the potential to contribute to in-combination or cumulative effects on environmental receptors in the vicinity of the A9 within the scheme extent.

A search of the Scottish Roads Works Commissioner's 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. There are also no local authority road networks in proximity to the 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, 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) are situated in whole or part in the Berriedale and Langwell Waters SAC, 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 (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:

- The total working area is less than 1 ha.
- The works will be temporary, localised, and completed during night-time hours, when the traffic count is at its lowest levels.
- 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.
- By removing the carriageway defects this will provide these parts of the A9 carriageway with another life cycle, and significantly improve the ride quality, which will result in safer conditions for road users.

Location of the scheme:

- The works are not expected to result in LSE on the Berriedale and Langwell Waters SAC or the East Caithness Cliffs SPA or SAC.
- Works will not have a significant impact on the Berriedale Cliffs SSSI or Berriedale Water SSSI.
- 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. The works are expected to result in positive impacts on road users during the operational phase.
- As the works will be limited to the like-for-like replacement of the structural components, there is no change to the vulnerability of the road to the risk or severity of major accidents/disasters that would impact on the environment.
- 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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Published by Transport Scotland, April 2023

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