

Environmental Impact Assessment Record of Determination

A9 Dunfallandy to Loch Faskally - Resurfacing

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Project Details

Description

BEAR Scotland has been commissioned by Transport Scotland to carry out resurfacing works on a stretch of the A9 carriageway, on the periphery of Pitlochry.

The construction work will involve replacement of surface course, including laybys, over an approximate 1,720m length. The scheme covers an approximate area of 1.38ha.

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 2022/2023 financial year (March 2023). However, works may be delayed into the 2023/2024 financial year (April 2023 to March 2024). Works are expected to be completed over 10-nights (19:00 – 07:00); however, changes in the programme may result in the need for day works.

Traffic management (TM) will consist of lane closures, facilitated by temporary traffic lights and a convoy working. 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 works are located on the A9 carriageway on the periphery of Pitlochry, within the Perth and Kinross Council area (Figure 1). The scheme has the following National Grid References (NGRs):

Scheme Start: NN 94593 56861

Scheme End: NN 93203 57592

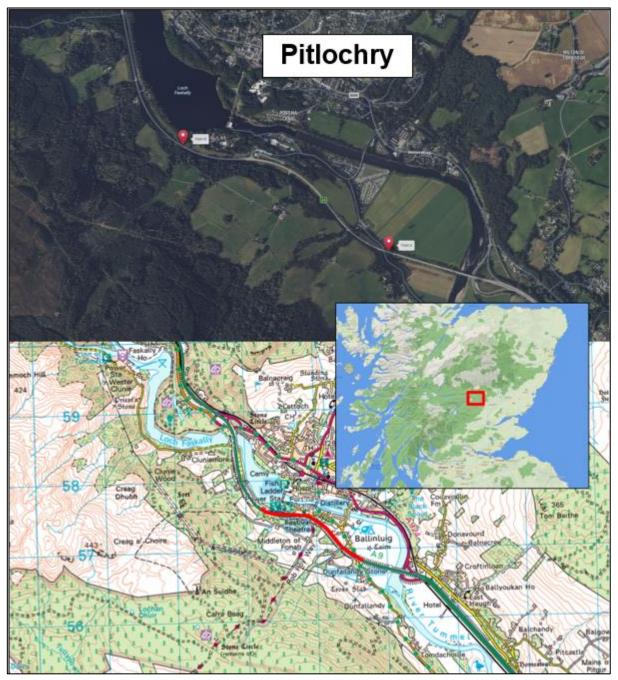


Figure 1. Location and scheme extent of the proposed resurfacing works at A9 Dunfallandy to Loch Faskally. Source: BEAR Scotland. F108 – Environmental Assessment Request (Scheme ref: 23-NW-0103-145).

Description of local environment

Air quality

The scheme does not fall within any Air Quality Management Areas (AQMA) (Air Quality Scotland) and no Air Quality Monitoring Stations are located in the vicinity of works (Air Quality Scotland); the nearest air quality monitoring station is located in Perth, approximately 34km southeast 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 Perth 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.

Average Annual Daily Flow (AADF) for the A9 carriageway, at the scheme extents in 2021 accounted for 10368 vehicles, of which 12% were heavy goods vehicles (HGV) (Road Traffic Statistics).

Baseline air quality at the scheme location is likely to be primarily influenced by traffic along the A9 trunk road. Secondary sources are likely derived from day-to-day agricultural land management and urban activities.

Cultural heritage

A desktop study using PastMap (PastMap) identified two Scheduled Monuments, sixteen Listed Buildings and numerous Canmore National Records (CNRs) and Historic Environment Records (HERs) lie within 300m of the scheme extents. There is no connectivity between the scheme extents and identified cultural heritage records; the nearest of these a CNR, lies 50m from the scheme extents and is separated by a woodland.

As a result of the works taking place strictly within the existing man-made footprint, it has been determined that the proposed project does not carry the potential to cause direct or indirect impact to features of cultural heritage importance.

As such, impact has been assessed as being 'no change' and has been scoped out of requiring further assessment.

Landscape and visual effects

The scheme does not fall within a National Park (NP) or National Scenic Areas (NSA) (Sitelink).

The Landscape Character Type (LCT) within the scheme extent is categorized as 'Lower Upland Glens' (no. 372) (<u>Scottish Landscape Character Types</u>), which is characterised by:

- Lower sections of the principal glens north of the Highland Boundary Fault.
- Larger scale landscapes than the mid and upper reaches of these glen, which are generally wider with broader floodplains.
- Combinations of upland and lowland attributes, with evidence of glaciation, but lacking many of the classic glacial features, such as corries, hanging valleys and misfit rivers, found higher up.
- Broad floodplains, often with meandering rivers, interspersed with narrower, gorgelike sections where harder rocks cross the glens.
- The most settled parts of the glens, with transport corridors housing main roads and railways, large towns, castles, fortified manor houses, historic estates and estate villages.
- Modern expansion of larger settlements, with pockets of smaller housing development out of the main settlements.
- Fertile farmland on valley floor and valley slopes with large fields separated by hedgerows with tree lines, woodland belts and post and wire fences.
- Substantial and varied woodland cover broadleaf woodlands clothing steeper slopes, around estate properties and along rivers, with conifer forests on valley sides and associated with estates
- Influence of large estates, castles and Victorian development, with their historic buildings and parkland.
- Corridor views along the valley.

Historic Environment Scotland's HLAMap (<u>HLAMap</u>) has highlighted the surrounding landscape to consist of a combination of woodland, recreational land, farmland and urban development.

Biodiversity

A desktop study using Nature Scot SiteLink (<u>SiteLink</u>) has noted that the scheme extents is not situated within a European site (Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Ramsar sites), biological Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) or Local Nature Reserves (LNRs) (<u>SiteLink</u>).

A desktop study using Nature Scot SiteLink (<u>SiteLink</u>) has identified the following designated site within 2km of the scheme:

 River Tay Special Area of Conservation (SAC) (Site Code: 8366), located approximately 120m northeast of the scheme

The NBN Atlas (NBN Atlas) has recorded numerous bird species within 2km over a 10-year period.

The NBN Atlas (NBN Atlas) holds the following records of invasive non-native species (INNS) of plants, as listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) (WCA) 2km over a 10-year period:

- Japanese knotweed (Fallopia japonica) 700m from the scheme extents
- Himalayan balsam (Impatiens glandulifera) 20m from the scheme extents

Six records of common ragwort (*Jacobaea vulgaris*), an injurious weed, as listed under the Weeds Act 1959, is recorded on Asset management Performance System (AMPS) within the scheme extent during the past ten years.

Habitats in the surrounding area are dominated by woodland and agricultural land. The Loch Faksally and the River Tummel lie 120m and 180m from the scheme extents respectively and together with minor tributaries provide significant freshwater habitats in the surrounding area.

A desktop study has been deemed sufficient for this assessment, and no ecological surveys have been carried out.

Geology and soils

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

Bedrock within the scheme extents is comprised of: (i) Southern Highland Group (psammite and semipelite) and (ii) Southern Highland Group (metalava and metatuff), which are metamorphic bedrocks (<u>BGS GeoIndex</u>).

Superficial deposits within the scheme extent are comprised of: (i) Alluvium (clay, silt, sand and gravel), (ii) River Terrace Deposits (gravel, sand, silt and clay) and (iii) Glaciofluvial Deposits (gravel, sand and silt), which are sedimentary superficial

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

As a result of the works taking place strictly within the existing man-made footprint, 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 recovered for re-use (if not contaminated with coal tar) 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.

Noise and vibration

The works are located in a semi-rural setting on the A9 at Pitlochry within the Perth and Kinross Council. There are numerous residential and commercial properties within 300m of the scheme. Properties are concentrated northeast of the scheme with the nearest lying 10m from the trunk road.

The A9 at the scheme extents has roadside tree shelterbelts running parallel with the trunk road corridor, which provide an element of acoustic screening between the areas of works and nearby receptors.

Baseline noise levels at the scheme location is likely to be primarily influenced by traffic along the A9 trunk road. Secondary sources are likely derived from day-to-day agricultural land management and urban activities.

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

The night-time modelled noise level (Lnight) within the scheme extents ranges between 60 and 65 decibels, with noise levels dropping to between 50 and 55 decibels at the nearest NSR (residential) (Scotland's Noise Scotland's Environment).

Population and human health

The scheme extents lies on the periphery of Pitlochry and as such, there are numerous residential and commercial properties within 300m of the scheme. Properties are concentrated northeast of the scheme with the nearest lying 10m from the trunk road. Access to receptors will not be restricted, furthermore majority of properties are screened from the trunk road by roadside tree shelterbelts and/or topography.

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.

'Clunie walk, Pitlochry' walking route as listed on WalkHighlands (<u>WalkHighlands</u>), also a core path (<u>Scotland's Environment</u>), crosses the trunk road within the scheme extents. A local footpath lies along the A9 carriageway within the scheme extents. There are also two laybys within the scheme extents.

There are no National Cycle Network (NCN) routes (<u>OS Maps</u>), paved footpaths, bus stops, or other pedestrian facilities along the A9 within the scheme extent.

Road drainage and the water environment

There are no classified waterbodies by the Scottish Environment Protection Agency (SEPA) under the Water Framework Directive 2000/60/EC (WFD) spanned or culverted beneath the A9 within the scheme extent.

Loch Faskally (a man-made reservoir) (ID: 6829) lies 120m north of the scheme. Loch Faskally is a river in the River Tay catchment of the Scotland river basin district. The Loch Faskally has been classified by SEPA as having an overall classification of 'Good'. The main stem is approximately 4km in length (SEPA water environmental hub).

The River Tummel (L Faskally to R Tay) (ID: 6828) lies parallel to the trunk road 180m northeast of the scheme at its nearest point. The River Tummel has been classified by SEPA as having an overall classification of 'Good'. The River Tummel is

a river in the River Tay catchment of the Scotland river basin district. The main stem is approximately 9.2km in length (SEPA water environmental hub).

The River Tummel and Loch Faskally have been designated as heavily modified waterbodies on account of physical alterations that cannot be addressed without a significant impact on water storage for hydroelectricity generation (<u>SEPA water environmental hub</u>).

Numerous waterbodies, considered to be tributaries and/or drainage ditches, are culverted beneath the A9 at the scheme extents and lie in proximity to the scheme.

The scheme falls within the 'Killin, Aberfeldy and Angus Glens' and 'Tummel and Tay Sand and Gravel' groundwater bodies, which were classified by SEPA in 2020 as having 'Good' overall condition (<u>SEPA water environmental hub</u>).

The scheme lies within 'Killin, Aberfeldy and Angus Glens' and 'Tummel and Tay Sand and Gravel' Drinking Water Protected Areas (Ground) (<u>SEPA water</u> environmental hub).

The SEPA indicative surface water online flood mapping tool (<u>SEPA Flood Map</u>) records that an approx. 50m stretch of the trunk road, within the scheme extents, is at a low to high risk of surface water flooding (0.1% - 10% Annual Exceedance Probability (AEP), 1-in-10-year to 1-in-1000-year flood event).

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 (<u>The Climate Change (Scotland) Act 2009</u>). 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 (<u>Mission Zero for transport | Transport Scotland</u>). 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.

- When not in use, plant and vehicles will be switched off; there will be no idling vehicles.
- All plant and fuel-requiring equipment utilised during construction shall be well maintained in order to minimise emissions, as per manufacturing and legal requirements.
- Green driving techniques will be adopted, and effective route preparation and planning shall be undertaken prior to works.
- All delivery vehicles carrying material with dust potential will be covered when travelling to or leaving site, preventing the spread of dust beyond the work area.
- Material stockpiles will be reduced as far as is reasonably practicable by using a 'just in time' delivery system. All material will also be stored on made ground.
- Any stockpiled material on site will be monitored daily to ensure no risks of dust emissions exists.
- Materials shall be removed from site as soon as is practicable.
- Good housekeeping will be employed throughout the work.
- Drop heights to haulage vehicles and onto conveyors will be minimised.
- Surfaces will be swept where loose material remains following planing.

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).

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 (including laybys) and will be carried out over 10 nights, and land use will not change as a result of the works. Furthermore, the scheme does not lie within an area of land designated as an NSA or NP. 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 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 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

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.

The scheme is not situated within a 'sensitive area' designated for biodiversity features e.g., SAC, SPA, Ramsar, SSSI.

Although the scheme is located within 300m of the River Tay SAC, the high-level HRA assessment concluded that the works would not result in any likely significant effects (LSE) upon the qualifying features of these 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 or impact on qualifying features.
- The location of the work and lack of connectivity to the wider landscape means there are few pathways to disturbance and a highly reduced risk of pollution.
- Works will not promote the known negative pressure on the various designated species.
- Given the relatively rural location of the scheme it is anticipated that foraging species would easily avoid the works area if any disturbance was created from noise, as there is an abundance of alternative habitat present in the landscape suitable for foraging.
- 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.

All works will be restricted to the A9 carriageway and will not entail any verge working; therefore, it is unlikely that any INNS or injurious weeds will be encountered. There are also no earthworks associated with the scheme, 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 native perennials, or injurious flowering plant species. Japanese knotweed, himalayan balsam, common ragwort (and any other invasive or injurious plant species noted) will be controlled/treated by cultural methods and/or chemical weed control as per the NW Annual Landscape Management Plan.

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 A9 and the scheme is of short duration. Therefore, with the following mitigation measures in place, the risk of significant impacts on biodiversity are considered to be low:

• Site personnel will be with the Toolbox talk 'Working with Injurious Weeds & Invasive Plants' prior to works commencing.

- Site personnel will remain vigilant for the presence of potentially unrecorded instances of INNS or 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 on additional mitigation measures.
- 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 are permitted.
- 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.
- Where possible, artificial lighting used during night works will be sufficiently screened and aligned so as to ensure that there is no direct illumination of neighbouring habitat (e.g., locations adjacent to riparian habitat, woodland, river etc.) to ensure minimal impact on nocturnal species.
- 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 species in the area are likely to be accustomed to road noise on the A9. Relevant toolbox talks will be included in the SEMP. The potential for significant species disturbance within the area of likely construction disturbance is therefore somewhat diminished.
- 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 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.
- 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 will be available for inspection. A copy of the Duty of Care paperwork shall 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 shall 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. Even though the works are programmed to take place during nightime working hours, the local receptors have a degree of screening from the scheme extents, providing a barrier to noise and visual impact. 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.
- For any night works, 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 shall be programmed to be as efficient as possible, with a view to limiting noise disruption to local sensitive receptors.
- Works with the potential to induce worst-case scenario noise and vibration (cold milling in preparation for carriageway resurfacing, using breakers (jackhammers), chipping hammers, use of rollers, steel cutters, etc.) will be intermittent, temporary, and short-lived, and the aim will be to complete the noisiest works by 23:00.
- All construction operatives will be briefed through toolbox talks prior to works commencing using the 'Being a Good Neighbour' toolbox talk template.
- 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. The identified human receptors have a degree of screening from the scheme extents and if their access is affected by the works, then they will be notified of works via letter drop. Although there are pedestrian facilities within the scheme extents, TM will only be in place for 10 nights (when footfall will be at a minimum). 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:

- If access to local residents properties are restricted then they will be notified
 of the impending works. Information will provide contact details (office
 phone number and e-mail address) for the Project Engineer as well as a 24-hour contact number for the BEAR Scotland Control Room.
- Local residents will be notified of the impending works and traffic management arrangements. Any changes of schedule (e.g. change from night-time works to daytime works) will be communicated to local residents 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 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 are detailed in the 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 shall be logged and reported. In the event of any spills into the
 water environment, all works will stop and the incident will be reported to
 the project manager and the BEAR Scotland Environmental Team. SEPA
 will be informed of any such incident as soon as possible using the SEPA
 Pollution Hotline.
- All plant and equipment will be regularly inspected for any signs of damage and leaks. A checklist will be present to make sure that the checks have been carried out.

- Storage of hazardous material, oil and fuel containers shall be distanced more than 10m away from any watercourses.
- If required, a designated refuelling area shall be identified. Fuel bowsers shall be stored on an impermeable area and will be fully bunded. This shall be distanced more than 10m from any watercourses.
- During refuelling of smaller mobile plant, a funnel shall 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.
- 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

Parts of the A9 carriageway within scheme extents are at high to low risk of surface water flooding (10% - 0.1% chance of flooding each year).

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 only 10 nights. Traffic management will consist of lane closures, which will be facilitated by temporary traffic lights and a convoy system. 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 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 Perth and Kinross Council Planning Portal (Map Search) did not identify any planning applications within 300m of the scheme.

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. Due to the nature of the proposed works, and absence of other developments in the vicinity or the works, there are no cumulative effects are anticipated.

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 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 1ha.

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 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 1.38ha.
- Works are restricted to like-for-like replacement of worn road surface, with all works restricted to made-ground on the A9 carriageway surface.
- 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 this part 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 scheme is not located wholly or in part in a 'sensitive area' as defined in the EIA (Scotland) Regulations 1999 (as amended).
- Although the works are located within 300m of the River Tay SAC, the highlevel HRA concluded that the works would not result in any likely significant effects (LSE) on the qualifying features.
- The scheme does not lie within any sites of historical, cultural, or archaeological significance.
- The scheme is not located within any areas designated for landscape interests.
- The scheme does not lie within any sites designated for geology or soils.
- The scheme will be confined within the existing carriageway boundaries and as a result will not require any land take and will not alter any local land uses.
- 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 worn road surface, 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.

Environmental Impact Assessment Record of Determination Transport Scotland

 Mitigation measures detailed above (and in the SEMP) will be 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, March 2023

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