



**TRANSPORT  
SCOTLAND**  
CÒMHDHAIL ALBA

# **Environmental Impact Assessment Record of Determination**

## **M8 After Junction 3 Westbound**

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## Project Details

### Description

BEAR Scotland has been commissioned by Transport Scotland to carry out carriageway resurfacing works. The proposed works will remove the identified defects and maintain pavement serviceability while increasing the lifespan of the road within the scheme by replacing existing sections of the pavement.

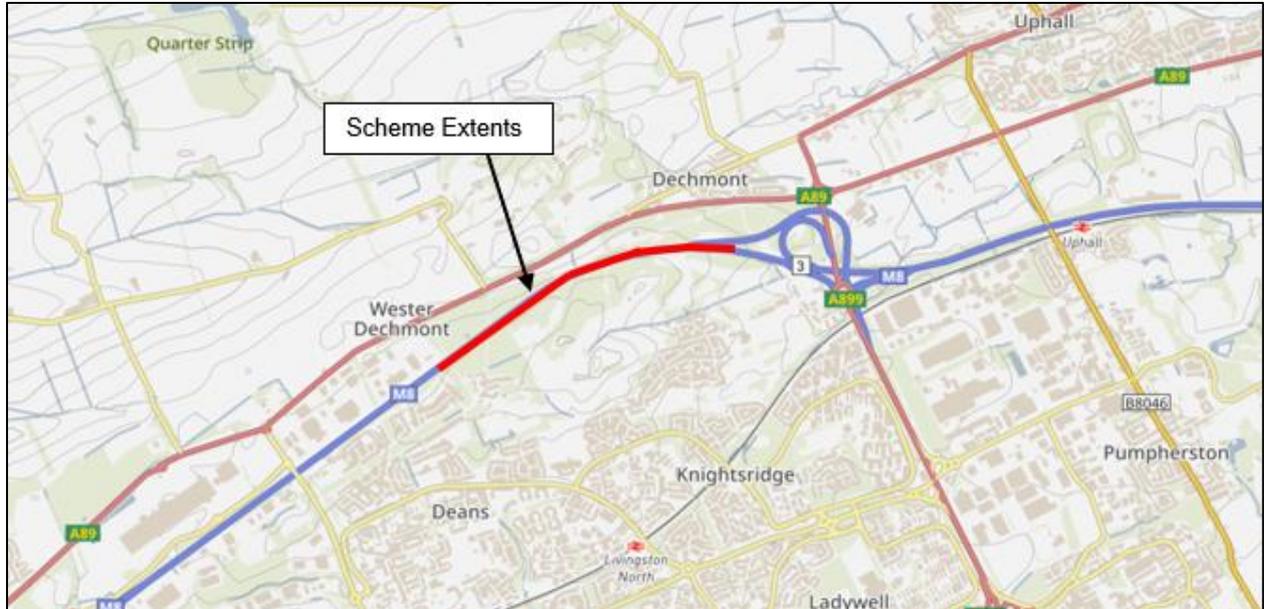
Construction activities include:

- Set up traffic management (TM) and mark out site.
- Mill existing bituminous material by road planer.
- Break up surfaces not accessible by planer (e.g., around gullies) with jackhammer and compressor.
- Collect and move excess material with loader/excavator.
- Sweeper to collect loose material and provide clean laying surface.
- Milled out/excavated materials all taken off site.
- Tack/bond coat laid.
- Binder material laid and compressed by paver (where required).
- Material compacted using a heavy roller.
- New bituminous surface course material laid by paver.
- Material compacted using a heavy roller.
- Mechanical sweeper to collect loose material.
- HGV for removal and replacement of material.
- Road markings and studs applied where necessary.
- New traffic counter installed.
- Remove TM and open road.

The works are currently programmed to be completed within the 2024/2025 financial year (April 2024 – August 2025 inclusive). Works are expected to commence on 5<sup>th</sup> May 2024 and are expected to be completed over eight nights (20:30 – 06:00). Traffic management (TM) is currently anticipated to consist of a night-time road closure of the M8 westbound carriageway, with a signed diversion in place. Traffic will be diverted off of the M8 at Junction 3, via A89, A779 and back onto the M8 heading WB at Junction 3a. As the scheme is located on a motorway, pedestrian routes will not be directly impacted by the scheme.

## Location

The scheme lies on the M8 south of Dechmont, with woodland predominantly bordering the carriageway within the scheme extents (Figure 1).



**Figure 1: Extent of works.** Source: Asset Management Performance System (AMPS). © Europa Technologies Ltd. Contains Ordnance Survey data © Crown copyright and database right 2018.

## Description of local environment

### Air quality

A search of the Air Quality in Scotland online mapping tool records that the scheme extents are not located within an Air Quality Management Area (AQMA), and air quality zones in the wider area record bandings in the 'green zone' (Low Index 1-3).

The scheme lies within the boundary of West Lothian Council, which has three AQMA's within its administrative boundary. The nearest AQMA is 'Broxburn' which lies approx. 4.8km northeast of the scheme. The 'Broxburn' AQMA has been declared for nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub>).

There are 13 sites registered on the Scottish Pollutant Release Inventory ([SPRI](#)) for pollutant releases to air within 10km of the scheme:

- Caradale Bricks, Etna Works, Armadale – mineral industry, declared for fluorine and inorganic compounds (lies approx. 8.8km west of the scheme).
- Beeches Poultry Farm, Longridge, Bathgate – intensive livestock and aquaculture production, declared for ammonia and particulate matter (PM<sub>10</sub>) (lies approx. 9.9km southwest of the scheme).

- Stend Poultry Farm, West Calder, West Lothian – intensive livestock and aquaculture production, declared for ammonia and PM<sub>10</sub> (lies approx. 4.7km south of the scheme).
- Shin-Etsu Handotai, Wilson Road, Livingston – chemical industry, declared for ammonia and non-methane volatile organic compounds (NMVOCs) (lies approx. 2.3km south of the scheme).
- API Foils, Houston Industrial Estate, Livingston – other activities, declared for NMVOCs and toluene (lies approx. 2km northeast of the scheme).
- Wyman Gordon Limited, Livingston – production and processing of metals, declared for carbon dioxide (CO<sub>2</sub>) and trichloroethylene (lies approx. 1.7km northeast of the scheme).
- Clapperton Poultry Complex, Broxburn, West Lothian – intensive livestock and aquaculture production, declared for ammonia and PM<sub>10</sub> (lies approx. 4.6km east of the scheme).
- VION Food Scotland Limited, Broxburn – animal and vegetable products from the food and beverage sector, declared for CO<sub>2</sub> (lies approx. 5.5km northeast of the scheme).
- Hillwood Quarry, Ratho, Midlothian – mineral industry, declared for CO<sub>2</sub> and PM<sub>10</sub> (lies approx. 9km northeast of the scheme).
- Clifton Poultry Farm, Clifton Road, Newbridge – intensive livestock and aquaculture production, declared for ammonia and PM<sub>10</sub> (lies approx. 6.9km east of the scheme).
- Raw Camps Poultry Farm, Kirknewton, West Lothian – intensive livestock and aquaculture production, declared for PM<sub>10</sub>, PM<sub>2.5</sub> (lies approx. 7.6km southeast of the scheme).
- Ravelrig Quarry, Kirknewton, Midlothian – mineral industry, declared for PM<sub>10</sub> and PM<sub>2.5</sub> (lies approx. 9.9km southeast of the scheme).
- Kaimes Quarry Landfill Site, Kirknewton – waste and waste-water management, declared for methane (lies approx. 9.6km southeast of the scheme).

The baseline air quality within the scheme extents is primarily influenced by motor vehicles travelling along the M8 trunk road. Secondary sources are most commonly derived from motor vehicles travelling along local network roads and day-to-day urban and woodland management activities

## Cultural heritage

The [PastMap](#) and [Historic Environment Scotland](#) (HES) online mapping tool records that Bangour Village Hospital Conservation Area (CA) lies approx. 140m north of the scheme. No other designated cultural heritage assets are found within 300m of the scheme extents.

Of lesser cultural heritage value, five undesignated cultural heritage assets (UCHAs) lie within 300m of the scheme extents. There is no connectivity between the scheme and the UCHAs.

Construction of the M8 carriageway is likely to have removed any archaeological remains that may have been present within the motorway boundary. The potential for the presence of unknown archaeological remains in the study area has therefore been assessed to be low.

Factor has no constraints that are likely to be impacted by the proposed works and has therefore been scoped out of further environmental assessment.

## Landscape and visual effects

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

The Landscape Character Type (LCT) within the study area is 'Urban' (no. 0), ([Scottish Landscape Character Types](#)) which has no defining characteristics.

[Land use](#) within 300m of the scheme is categories into the following:

- Rectilinear fields and farms.
- Plantation.
- Motorway and major roads.
- Recreation area.
- Urban area.
- Rough grazing.
- Golf course.
- Reservoir.
- Designed landscape.

The [national scale land capability for agriculture](#) classifies land surrounding the scheme as being:

- 'Class 888' – urban.
- 'Class 4.1' – land capable of producing a narrow range of crops, primarily grassland with short arable breaks of forage crops and cereal.
- 'Class 3.1' – land capable of producing consistently high yields of a narrow range of crops and/ or moderate yields of a wider range. Short grass leys are common.

Woodland within 300m of the scheme extents is categorised into the following:

- Approx 34.9ha of conifer woodland.

- Approx 3.7ha of broadleaved woodland.
- Approx. 2.9ha of young trees.
- Approx. 0.5ha of mixed mainly broadleaved woodland.
- Approx 3.1ha of assumed woodland.
- Approx. 6.5ha of felled woodland.

Approx. 1.9ha of lowland mixed deciduous woodland and 0.9ha of wet woodland are assessed as being native on the [Native Woodland Survey of Scotland](#). This woodland is located to the north of the scheme bordering the M8 eastbound carriageway along the scheme extents. Approx 6.4ha of long-established plantation origin is registered on the [Ancient Woodland Inventory Scotland](#) bordering the scheme within the western extents. There are no trees covered by a Tree Preservation Order (TPO) with connectivity to the scheme extents.

The existing trunk road is a prominent linear landscape feature. The trunk road corridor, for example, has a distinct character shaped by fast-flowing traffic, road markings, safety barriers, signage, landscaping etc. The scale of the trunk road detracts from the quality and character of the wider landscape.

## Biodiversity

The [NatureScot Sitelink](#) online mapping tool identifies that the scheme is not situated within 2km of, and does not share connectivity with, a 'sensitive area' designated for biodiversity features e.g., SAC, SPA, Ramsar, SSSI, etc.

There are no [Local Nature Conservation Sites](#) (LNCS) or Local Nature Reserves (LNRs) designated for biodiversity features within 300m of, or which share connectivity to, the scheme.

The [National Biodiversity Network](#) (NBN) online mapping tool records no mammal species of conservation importance, within 2km of the scheme (in last 10-years). Only records with open-use attributions (OGL, CC0, CC-BY) were included in the search criteria.

A search of the NBN online mapping tool records the following species within 2km of the scheme (in last 10-years):

Two invasive non-native species (INNS):

- Himalayan balsam (*Impatiens glandulifera*).
- Rhododendron (*Rhododendron ponticum*).

Five injurious weeds (as listed under the Weeds Act 1959):

- Curled dock (*Rumex crispus*).
- Spear Thistle (*Cirsium vulgare*).
- Creeping thistle (*Cirsium arvense*).
- Broad-leaved dock (*Rumex obtusifolius*).

- Common ragwort (*Senecio jacobaea*).

One invasive native perennial (as listed in the Trunk Road Inventory Manual):

- Rosebay willowherb (*Chamerion angustifolium*).

The nearest record pertains to rhododendron recorded 0.13km south of the scheme extents in 2016.

A search of the Asset Management Performance System (AMPS) online mapping tool records common ragwort and rosebay willowherb within the verge of the westbound carriageway within the scheme extents (2017, 2014 respectively).

Habitat immediately bordering the trunk road tends to be of low intrinsic value because the existing road verge is subject to cyclic maintenance e.g., grass cutting, weed control, tree, and shrub cut-back etc. The roadside verges therefore comprise a homogenous species-poor semi-improved grassland which is bordered predominantly by woodland throughout the scheme extents with intermitted areas of scrub, Deer Park Golf Course located to the south and an active construction site for Bangour Village Estate located to the north bordering the A89. Roadside vegetation generally offers low ecological habitat value due to its limited scale, fragmented nature and high potential for disturbance owing to cyclic trunk road landscape maintenance, and the proximity of the trunk road (with its fast-flowing traffic).

## Geology and soils

The M8 within the scheme extents is not located within a [Geological Conservation Review Site](#) (GCRS), and there are no [Local Geodiversity Sites](#) (LGS) with connectivity to the scheme extents.

The [National Soil Map of Scotland](#) online mapping tool records that within the scheme extents the generalised soil types are Brown Soils and Mineral Gleys and the major soil groups are Brown Soils and Gleys.

The [British Geological Survey](#) online mapping tool records that the superficial geology within the scheme extents is comprised of:

- Till, Devensian (Diamicton).

The bedrock geology within the scheme extents is recorded as:

- Hopetoun Member, Sedimentary Rock Cycles (Strathclyde Group Type).
- Midland Valley Sill, Complex (Quartz-Microgabbro).

There is no evidence of historical industrial processes or the storage of hazardous materials that could have given rise to significant land contamination within the scheme extents.

Factor has no constraints that are likely to be impacted by the proposed works and has therefore been scoped out of further environmental 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/surface-mounted road studs.

The 1.98km scheme involves removal of the surface course and localised areas of base and binder course. In total, approx. 4,050 tonnes of bituminous material (European Waste Catalogue Code: 17 03 02) will be removed from site. Bituminous material classified as hazardous material containing coal tar (approx. 658 tonnes) (European Waste Catalogue Code: 17 03 01\* (bituminous mixtures containing coal tar (Hazardous))) will also be removed from the site.

The value of the scheme exceeds £350,000 and as such, a Site Waste Management Plan (SWMP) will be created for these works.

## Noise and vibration

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

The night-time modelled noise level ( $L_{night}$ ) within the scheme extents ranges between 70 and 75 decibels, with levels dropping to between 55 and 60 decibels at the nearest noise sensitive receptor (NSR) (residential property) ([Scotland's Noise Scotland's Environment](#)).

Baseline noise and vibration in the study area is mainly influenced by vehicles traveling along the motorway. Secondary sources are most commonly derived from motor vehicles travelling along local network roads and day-to-day urban and woodland management activities.

## Population and human health

There are several properties (residential, business and industrial) that lie within 300m of the scheme extents. The nearest of which (residential properties) lie approx. 65m south west of the scheme extents which are screened from the scheme by woodland shelterbelt (approx. 53.5m wide). Business properties to the north west of the scheme extents are located at their closest approx. 70m and have limited screening from the works. All remaining properties are found >130m from the scheme and are screened by a combination of woodland and intervening roads.

In addition to the above, Dechmont Infant School lies approx. 273m north of the scheme extents and is screened from the scheme by a combination of woodland shelterbelt (approx. 246m wide) and the A89 road.

There is one non-motorised user (NMU) facility with connectivity to the scheme:

- Dechmont Circular footpath surrounds the scheme extents. A section of the route spans the motorway within the scheme extents via an overpass. This footpath is also recorded as a Core Path (CP ID: 28).

There are no other NMU or community facilities present within, or that have connectivity to, the scheme extents.

Street lighting is not present throughout the scheme extents.

The M8, within the scheme extents is a dual carriageway with the national speed limit of 70mph applying. The Annual Average Daily Traffic (AADT) flow is high (59,849 motor vehicles (ID: 80499, 2022) ([Road Traffic Statistics](#)) and is comprised of:

- 39 two wheeled motor vehicles.
- 39,705 cars and taxis.
- 226 buses and coaches.
- 13,436 light goods vehicles.
- 6,444 heavy goods vehicles.

There are no congestion issues noted on the M8 within the scheme extents during the proposed working hours.

## Road drainage and the water environment

The Scottish [Environment Protection Agency \(SEPA\) River Basin Management Plan](#) online mapping tool records no classified surface waterbodies located within 300m of the scheme extents.

There are no unclassified waterbodies spanned by or culverted beneath the scheme extents. However, two small minor unclassified waterbodies, considered to be minor tributaries or drainage channels and herein referred to as Drain1 and Waterbody1 are located within 300m of the scheme extents:

- Drain1 is present approx. 30m north.
- Waterbody1 is present approx. 180m north and connects with Broxburn, located 430m north of the scheme.

A search of the [SEPA's Flood Map](#) online mapping tool records M8, within the scheme extents, is at a medium risk of surface water flooding (i.e., each year the area has a 0.5% chance of flooding).

A search of the [Scotland's Environment](#) (SE) online mapping tool determined that the trunk road, within the scheme extents, lies on the 'Livingston' groundwater, which has been classified as 'Poor'.

A search of the [SE](#) online mapping tool determined that the trunk road, within the scheme extents, does not lie within a Nitrate Vulnerable Zone.

## Climate

The Climate Change (Scotland) Act 2009 sets out the target and vision set by the Scottish Government for tackling and responding to climate change ([The Climate Change \(Scotland\) Act 2009](#)). The Act includes a target of reducing CO<sub>2</sub> emissions by 80% before 2050 (from the baseline year 1990). The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 amended the Climate Change (Scotland) Act 2009 to bring the target of reaching net-zero emissions in Scotland forward to 2045 ([Climate Change \(Emissions Reduction Targets\) \(Scotland\) Act 2019](#)).

The Scottish Government has since published its indicative Nationally Determined Contribution (iNDC) to set out how it will reach net-zero emissions by 2045, working to reduce emissions of all major greenhouse gases by at least 75% by 2030 (<https://www.gov.scot/publications/scotlands-contribution-paris-agreement-indicative-ndc/>). 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

During the construction phase, activities undertaken on site could potentially have some minor localised and short-term air quality impacts in proximity to the works. The construction phase will, for example, require a range of ancillary plant, vehicles, and non-road mobile machinery (NRMM) which will contribute to local dust and air pollutants. The main sources are likely to be dust generated by milling of the existing carriageway surface, as well as exhaust emissions from ancillary plant and vehicles. As a result, there is potential for dust, particulate matter, and exhaust emissions to be emitted to the atmosphere.

However, considering the nature of the scheme, and with implementation of mitigation detailed below, the proposed works impacts on local air quality levels during the construction period are assessed to be temporary negligible adverse in magnitude.

Upon completion of the works, no residual air quality impacts are anticipated.

Air quality mitigation measures:

- A water-assisted dust sweeper will sweep the carriageway after dust-generating activities, and waste will be contained and removed from site as soon as is practicable.
- Ancillary plant, vehicles and NRMM will have been regularly maintained, paying attention to the integrity of exhaust systems.
- Ancillary plant, vehicles and NRMM will be switched off when stationary to prevent exhaust emissions (e.g., there will be no idling vehicles).
- Materials that have a potential to produce dust will be removed from site as soon as possible, and vehicles that remove cold-milled material from site will have sheeted covers.
- Cutting, grinding, and sawing equipment (if required) will be fitted or used in conjunction with suitable dust suppression techniques e.g., local exhaust ventilation system that fits directly onto tools.
- Regular monitoring (e.g., by engineer or Clerk of Works) will take place when there is potential for dust, particulate matter, and exhaust emissions to be emitted to the atmosphere. In the unlikely event that unacceptable air pollutants are emanating from the site, the operation will, where practicable, be modified and re-checked to verify that the corrective action has been effective. Actions to be considered include: (a) minimising reducing the operating hours, (b) changing the method of working, etc.

## Landscape and visual effects

There will be a short-term impact on the landscape character and visual amenity of the site as a result of the presence of construction plant, vehicles, and TM.

However, people, ancillary plant, vehicles, NRMM and materials are restricted to areas of made/engineered ground within the M8 carriageway, and construction works are programmed to be undertaken at night (eight nights) on a rolling programme. In addition, the M8 within the scheme extents is screened from the majority of the wider environment by a combination of roadside embankments and tree shelterbelt planting. As such, the visual impact of the works will somewhat be reduced.

Considering the nature of the scheme, and with implementation of mitigation detailed below, impacts on landscape and visual effects are assessed as temporary minor adverse in magnitude.

Upon completion of the works, no residual impacts are anticipated e.g., when complete, the visual appearance will remain largely unaffected, with the resurfaced carriageway being the only discernible change.

Landscape and visual effects mitigation measures:

- Where possible, construction vehicles will not be left in places where soil or vegetation can be damaged. If damage to road verge occurs this will be lightly cultivated or graded (upon completion of the works) to allow natural recolonization by local species and promote integration with existing landscape character.
- The site will be monitored regularly for signs of litter and other potential contaminants and litter will be removed before and after works take place.
- The site will be left clean and tidy following construction.

## Biodiversity

The scheme is not situated within 2km of, and does not share connectivity with, any other 'sensitive areas' designated for biodiversity features e.g. SAC, SPA, Ramsar, SSSI, etc.

There are no LNCSs or LNRs designated for biodiversity features within 300m or with connectivity to the scheme extents.

A temporary short-term increase in noise levels may cause disturbance to other local wildlife. The works will, for example, require a range of ancillary plant, vehicles and NRMM which will emit noise and create potential disturbance. The works will also

require removal of materials and the presence of personnel to facilitate the carriageway resurfacing. However, the number of construction vehicles and construction operatives required onsite is low given the scale and scope of works. In addition, any species in the area are likely to be accustomed to road noise and visual disturbance pertaining to vehicle movements on the M8, and the scheme will be undertaken over eight nights. The potential for species disturbance within the area of likely construction disturbance is therefore somewhat diminished.

Common ragwort and rosebay willowherb have been identified along the verge of the westbound carriageway within the scheme extents, however, all works are restricted to areas of made ground on the M8 carriageway surface, with only 'like-for-like' replacement of road surface being undertaken with no vegetation clearance required. As such, there is limited potential for the spread of the above identified species or for the introduction or spread of INNS, invasive native perennials, or injurious flowering plant species. Common ragwort and rosebay willowherb (and any other invasive or injurious flowering plant species) will also be controlled/treated by cultural methods and/or chemical weed control as per the SE Annual Landscape Management Plan.

Considering the nature of the scheme, and with the implementation of mitigation detailed below, the proposed works impacts on biodiversity throughout the construction period are therefore assessed to be temporary minor adverse in magnitude.

Upon completion of the works, no residual impacts are anticipated in relation to biodiversity.

Biodiversity mitigation measures:

- Given the presence of injurious common ragwort and invasive native perennial rosebay willowherb, within the carriageway verge scheme extents Toolbox Talk TTN-009 Working with Injurious Weeds & Invasive Plants will be briefed prior to works commencing. Site personnel will remain vigilant for the presence of any potentially unrecorded instances of invasive or injurious weeds in road verges throughout the works period.
- Site personnel will remain vigilant for protected species and will not approach or touch any animals seen on site. Any sightings of protected species will be reported to BEAR Scotland's Environmental Team. Should a protected species be encountered or move within 50m of the active works, works will be temporarily halted until the animal(s) move at least 50m away from the construction site, or until BEAR's Environmental Team can provide advice.
- The Contractor will employ 'soft-start' techniques for all noisy activity to avoid sudden and unexpected disturbance during works. Each time the activity is started up after a period of inactivity, the noise levels will be gradually

increased over a period of 30 minutes to permit animals (and birds) to move away from the disturbance.

- Where possible, artificial lighting used during night works will be sufficiently screened and aligned to ensure that there is no direct illumination of neighbouring habitat (e.g., locations adjacent to tree shelterbelt, woodland, surface waterbodies) to ensure minimal impact on nocturnal species.
- All equipment stored onsite, where necessary, will be checked at the start of each workday to ensure any mammal species are not present. Any storage containers/plant left on site, where necessary, will also be secured overnight to prevent exploration by any mammal species. Any areas where an animal could become trapped (e.g., storage containers) will also be covered at the end of each working day.
- People, ancillary plant, vehicles, NRMM and materials will be restricted to areas of made/engineered ground (as much as is reasonably practicable). If during works unforeseen access to the surrounding environment is required, works will cease in this area and BEAR Scotland's Environmental Team will be contacted to allow consideration of potential environmental effects.
- BEAR Scotland's Environmental Team will be contacted to allow consideration of potential environmental effects if:
  - Unforeseen site clearance is required.
  - Unplanned works must be undertaken outwith the carriageway boundary and adjacent verge.
  - There is any deviation from the agreed plan, programme and/or method of working.
  - Nesting birds are found onsite.
- BEAR Scotland's Control Room will be contacted if there is a pollution incident.

## **Material assets and waste**

Minimising impacts arising from construction materials are focussed upon making the most efficient use of materials onsite to reduce the need for imported primary materials and minimise the creation and disposal of waste through (i) reduction, (ii) re-use, and (iii) recycling. Potential impacts have been assessed for both the construction and operational phases of this scheme. It is anticipated that most material impacts are likely to arise during construction, though long-term residual impacts could occur post construction during the operational phase e.g., during the disposal of materials arising from routine maintenance operations. Furthermore, given the identification of coal tar within the area required to be resurfaced there is also potential for impacts to occur as a result of the improper storage or disposal of waste.

However, the detailed design will reduce the requirements for primary materials e.g., the carriageway surfacing and subbase will be carefully considered to minimise the

requirements for importing primary material. Materials will also be derived from recycled, secondary, or re-used origin as far as practicable within the design specifications to reduce natural resource depletion. Specifying TS2010 surface course allows a wider array of aggregate sources to be considered when compared to typical stone mastic asphalt (SMA). As a result, the use of TS2010 should reduce the usage of imported aggregates and increase the use of a wider range of sustainable aggregate sources. The design life for the TS2010 surfacing is also estimated to be 20 years. The enhanced durability of TS2010 therefore reduces reoccurring routine maintenance and associated levels of traffic disruption to this section of road over the period.

A SWMP template will be partially completed by the Design Engineer and then will be issued to the Contractor with the SWMP to complete the contract delivery section. The SWMP will provide details of the following:

- The quantity and type of waste that will be produced,
- How waste will be minimised, reused, recycled, recovered, or otherwise diverted from landfill,
- How materials that cannot be reused, recycled, or recovered will be removed from site and consigned, transported and disposed of in full accordance with all relevant legislation.

Considering the nature of the scheme, and with implementation of the mitigation detailed below, the proposed works impacts on material assets and waste throughout the construction period are therefore assessed to be temporary negligible adverse in magnitude.

Upon completion of the works, no residual impacts are anticipated on materials or waste.

Material and waste mitigation measures:

- A Site Waste Management Plan (SWMP) will be completed by the Designer and Contractor as required.
- Approximately 658 tonnes of road planings containing coal tar are required to be removed and 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, but not be limited to:
  - Coal tar contaminated road planings will be classified as a Special Waste.
  - All waste will be appropriately segregated, with coal tar contaminated planings being kept separate from uncontaminated planings.
  - Coal tar contaminated planings will be transported by a registered waste carrier and be accompanied by a SEPA-issued consignment note. SEPA will be notified no less than three working days (72 hours) before and no longer than one month before, prior to Special Waste leaving site. Special Waste 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.
- Good materials management methods (e.g., 'just-in-time' delivery), will be implemented wherever possible.
- The Contractor is responsible for the reuse / disposal of non-hazardous road plannings, 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/2008241), the rules of which will be complied with.
- The Contractor will comply with all 'Duty of Care' requirements, ensuring that any surplus materials or waste are stored, transported, treated, used, and disposed of safely without endangering human health or harming the environment. Material transfer notes and/or waste exemption certificates (if required) will also be completed and retained.
- Designated areas will be identified within which all materials and personnel, including construction compounds (within the confines of the TM), will be contained to limit environmental disturbance during construction works. This will include a designated area (if required) for segregation and reuse of waste materials.
- The selection of areas for materials stockpiling will avoid sensitive locations such as road drainage. Stockpiled materials with leachate potential, for example, will be stored away from road drainage to prevent cross-contamination with other materials, wastes, or groundwater.
- Materials will be stored with the appropriate security to prevent loss, theft, or vandalism.
- All temporary road signs and traffic cones will be removed from site on completion of works.
- Wastewater from mobile welfare facilities (if required) will be subject to effluent treatment followed by tanker removal.
- If hazardous substances are used onsite, each substance will be subject to assessment under the Control of Substances Hazardous to Health (COSHH) Regulations 2002. Hazardous substances will also be clearly labelled, and disposed of, in line with COSHH safety data sheets and the Special Waste Regulations 1996. Special waste will also not be mixed with general waste and/or other recyclables.

## Noise and vibration

Activities undertaken on site could potentially have some localised and short-term noise impacts in proximity to the works. The works will, for example, require a range of ancillary plant, vehicles and NRMM for carriageway resurfacing. Noise will also be generated by loading/unloading materials, through the use of breakers (jackhammers)

and rollers along with during vehicle movement etc. As a result, there is potential for noise and vibration effects.

However, the works are not located within a CNMA or CQA, and the proximity of road space suggests that residents within the local area will have a degree of tolerance to noise and disturbance. Works will also be completed over eight nights on a rolling programme, with the aim being to complete the noisiest works by 23:00. Works with the potential to induce worst-case scenario noise and vibration will also be intermittent, temporary, transient and short-lived. The potential for disturbance will therefore be somewhat diminished.

The closest residential properties (i.e. 65m south west) are afforded a level of screening by the existing shelterbelt plantation, while business properties located approx. 70m north west have limited screening from the works, however the scheme will be undertaken at night when these buildings are not expected to be occupied. Considering the likely sources of noise and vibration, the distance from the point of generation to NSRs, the nature, duration, size and scale of the scheme, and with implementation of the mitigation detailed below, it is unlikely that noise and vibration associated with the works will lead to significant impacts, disruption and/or complaints. The proposed scheme is therefore anticipated to result in temporary minor adverse noise impacts.

The road surface is in a poor condition, with a series of defects. Replacing the life-expired surface course with TS2010 road surfacing affords the benefits of a reduction in mid-to-high frequency traffic noise and a reduction in ground vibrations. As a result, upon completion of the work, noise associated with the movement of vehicles on the trunk road should decrease post construction.

Noise mitigation measures:

- The local authority environmental health will be notified of nighttime working by BEAR Scotland's design engineer.
- Wherever possible, careful consideration will be given to the siting and orientation of particularly noisy items of NRMM so that it is located away from surrounding properties. Activities which have the potential to produce excessive noise e.g., cutting and grinding of materials will also, if possible, be undertaken away from surrounding properties.
- Where possible, the noisiest work operations (e.g., cold milling, using breakers (jackhammers), chipping hammers, use of rollers, etc.) will be completed before 23:00.
- If unacceptable noise is emanating from the site the operation will, where possible, be modified and re-checked to verify that the corrective action has been effective. Actions to be considered include (a) reducing the operating hours, (b) repositioning equipment, (c) changing the method of working etc. Corrective actions will be actioned through the nonconformance reporting procedure, which ensures a root-cause analysis is carried out on each incident. The non-conformance procedure also ensures that appropriate corrective and preventative action measures are

agreed and implemented in a timely fashion with all parties, and are recorded and actioned through to closeout, and fully auditable and traceable.

- Ancillary plant, vehicles and NRMM with directional noise characteristics will (where practical) be shut down in intervening periods between site operations.
- The use of paving breakers (jackhammers), chipping hammers etc. will be avoided (except where there is an overriding justification), and if used will be fitted with mufflers or silencers of the type recommended by the manufacturer.
- Drop heights from vehicles and NRMM will be kept to a minimum to minimise noise when unloading.
- All ancillary plant, vehicles and NRMM used onsite will have been regularly maintained, paying attention to the integrity of silencers and acoustic enclosures.
- All compressors will be 'sound-reduced' models fitted with properly lined and sealed acoustic covers which will be kept closed when in use.
- HGV, site vehicles and NRMM will be switched to the minimum setting required by HSE and, where possible, will utilise 'broadband non-tonal' or 'directional sound reversing' alarms. Speed limits will also be reduced through the works.

## Population and human health

During construction, activities undertaken on site have the potential to have temporary adverse impacts on local residents and road users. However, no congestion issues are noted, and TM will only be in place for eight nights (when traffic flows will be at a minimum). In addition, the proximity of road space suggests that residents will have a degree of tolerance to noise and disturbance.

Dechmont Infant School lies approx. 270m north of the scheme extents and is screened from the scheme extents. This coupled with the works being undertaken at night when the school is not in use will result in negligible impacts.

While a core path spans the motorway within the scheme extents, works will be restricted to the existing M8 carriageway and will not impact upon the core path above. There are no other NMU facilities, or community assets, with connectivity to the scheme extents.

Considering the nature of the scheme, and with implementation of the mitigation described below, impacts on population and human health are assessed as temporary minor adverse in magnitude.

Upon completion of the works, no residual impacts are anticipated in relation to population and human health.

Population and human health mitigation measures:

- Where appropriate, a communication strategy (e.g., social media, consultation with local authority and other stakeholders, letter drop (for night-time works), etc) will be initiated to keep local residents and businesses informed of the proposed working schedule, particularly the times and durations of noisy construction

activities. The community strategy will also provide a 24-hour contact number for the BEAR Scotland Control Room.

- Construction lighting will consider the need to avoid illuminating surrounding properties to avoid a nuisance at night, and non-essential lighting will be switched off at night.
- Advanced signage will be strategically placed on the trunk road to notify stakeholders of the road closure and diversion. Signage will be installed at least seven days in advance of the road closure.
- A Traffic Management Plan (TMP), which includes measures to avoid or reduce disruption to road traffic, will be produced in accordance with the Traffic Signs Manual (Department of Transport 2009). The TMP will ensure that there is no severance of community assets, access routes or residential development.

## **Road drainage and the water environment**

During carriageway resurfacing, there is potential for temporary adverse impacts on the water environment. Potential changes in water quality e.g., from pollution events (either by accidental spillage of chemicals, fuels or by mobilisation in surface water caused by rain) during works have the potential to have a direct or indirect effect on Drain1, Waterbody1 and surrounding waterbodies.

However, the works will be restricted to the existing M8 carriageway. All land outwith the motorway boundary is also considered out-of-bounds to all construction staff during the works (i.e. no 'in-water' works required) and there is no requirement for land take, site clearance or resources from within a waterbody. There is also no requirement for the abstraction or transfers of water from, or discharges to a waterbody. The potential for a direct pollution incident within a waterbody is also unlikely e.g., experience gained from BEAR Scotland maintenance schemes elsewhere on the network has shown that where standard best working practice is adopted (e.g., adherence to SEPA GPPs or PPGs, etc.), water quality is protected.

Considering the nature of the scheme, and with implementation of the mitigation detailed below, the proposed works impacts on the road drainage and water environment are assessed as temporary negligible adverse in magnitude.

Upon completion of the works, no residual impacts are anticipated in relation to the road drainage and water environment.

Road drainage and water environment mitigation measures:

- If any works are identified that would require entering Drain1 or WB1, BEAR Scotland's Environmental Team will be contacted (before works commence) to allow consideration of potential environmental effects.

- The abstraction or transfers of water from, discharges to, or the washing of tools in Drain1 or WB1 is not permitted.
- The Contractor will implement measures to minimise the risk of sediment or accidental spillages entering the road drainage system e.g., prior to works commencing any roadside gullies within 10m of work activities will be bunded (e.g., utilisation of drain covers or similar) to ensure full segregation of the works from the road drainage system. The Contractor will inspect bunds periodically to ensure that they have not been removed, damaged, or interfered with and they will be cleaned of silt and debris as necessary. If it is identified that bunds are not up to standard, the works will not commence until they have been reinstated to the condition they were originally in.
- All site personnel will be made aware of site spillage response procedures and in the event of a spill, all works associated with the spill will stop, and the incident reported to the Site Supervisor. Small spills that did not leave the site boundary and are cleaned up without material environmental harm or residual environmental impact would most likely not be required to be notified to SEPA or other authorities. However, all such incidents will be recorded and reported to BEAR Scotland's Environmental Team. In the event of a 'serious incident', SEPA will be notified without delay. Such notification will include: (i) the time and duration of the incident, (ii) a description of the cause of the incident, (iii) any effect on the environment as a result of the incident, and (iv) any measures taken to minimise or mitigate the effect and prevent a recurrence.
- All waste, vehicles, ancillary plant, NRMM and fuels will be stored in the compound(s) or laydown area and will be secured and located, if space is available, at least 10m from drainage entry points and Drain1 or WB1, in order to comply with GPP 5 'works and maintenance in or near water'. Refuelling will only be undertaken at designated refuelling areas (e.g., on hardstanding, with spill kits available, and >10m from drainage entry points, where practicable). Spill kits will also be available within all site vehicles and spill kits will be replenished onsite when required. Only designated trained and competent operatives will be authorised to refuel plant. Generators, and other ancillary plant and NRMM, where there is a risk of leakage of oil or fuel, will have internal bunding or a secondary containment system placed beneath them that meets 110% capacity requirements. Containment systems will also be emptied regularly. All waste, vehicles, ancillary plant, NRMM and fuels will also be stored in a manner that ensures they are protected from damage by collision or extremes of weather.
- Regular visual pollution inspections of the designated laydown area and work site (particularly near road drainage entry points and waterbodies) will be conducted (e.g., site walkover by engineer or Site Supervisor), especially during periods of heavy rain.
- All vehicles and NRMM onsite will have been regularly maintained, paying attention to the integrity of oil tanks, coolant systems, gaskets etc. A checklist will be present to make sure that the checks have been carried out.

## Climate

BEAR Scotland, working on behalf of Transport Scotland, undertake carbon monitoring of major projects and operational activities. Emissions from activities are recorded using Transport Scotland's Carbon Management System. BEAR Scotland also undertakes resource efficiency activities to manage and reduce emissions contributing to climate change. The carriageway resurfacing works will also extend the maintenance intervals required for future works. In doing so, the service life of the trunk road is also extended.

During works there is potential for impacts as a result of the emission of greenhouse gases through the use of equipment, vehicles, and NRMM, material use and production, and transportation of material/waste. However, considering the nature, duration, size and scale of the scheme, and the mitigation detailed below, the risk of significant impacts to climate are considered to be negligible adverse in magnitude.

Upon completion of the proposed scheme no residual impacts are anticipated on the climate.

Proposed climate mitigation measures:

- Local contractors and suppliers will be used as far as practicable to reduce fuel use and greenhouse gas emitted as part of the works.
- BEAR Scotland will adhere to its Carbon Management Policy.
- Where possible, waste will be removed to local waste management facilities.

## Vulnerability of the project to Major Accidents and Disasters

There will be no change to the likelihood of flooding on the M8 within the scheme extents upon completion of the works, although repairs to the carriageway pavement will provide localised benefits for road users.

Works are restricted to areas of made/engineered ground within the boundary of the M8 carriageway, with access to the scheme gained via the M8. TM is currently anticipated to be night-time M8 WB lane closures with a signed diversion. There are no NMU facilities or other community assets that have the potential to be impacted by the works. As such, the proposed works impacts on the road traffic accidents is assessed to be of negligible magnitude.

A Site Environmental Management Plan (SEMP) will be produced by BEAR Scotland which sets out a framework to reduce the risk of adverse impacts from construction activities on sensitive environmental receptors. The Contractor will comply with all conditions of the SEMP during works and may be subject to audit throughout the contract.

Considering the above, 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 area anticipated with any other developments in the vicinity. Any future BEAR Scotland schemes will be programmed to take into account already-programmed works and as such, any cumulative effect will be limited.

An online search of the [Scottish Road Works Commissioner](#) records that there are no additional works occurring within 300m of the scheme.

In addition, a search using [West Lothian Council 'Simple Search'](#) identified that there are three planning applications within 300m of the scheme extents (Table 1).

Table 1: Planning Applications in Last 2 Years

Reference	Proposal	Status	Distance from scheme
0818/LBC/23	Listed building consent for proposed alterations including partial demolition, extension and conversion to former power station complex, including workshops and chimney stack and alteration and extension to Honeysuckle Cottage	Awaiting decision	260m north
0803/MSC/23	Approval of matters specified in conditions of planning permission 1019/P/19 for partial demolition of the boiler house complex to form three retail units totalling 569sqm, partial demolition of chimney stack, demolition of shop and erection of 126sqm community pavilion, erection of seven retail units totalling 723sqm and a 626sqm free standing retail unit, erection of energy centre for district heating system, erection of two padel tennis courts, extension to Honeysuckle Cottage with associated parking, access and landscaping	Awaiting decision	200m north
0782/MSC/23	Approval of matters specified in conditions of planning permission 1019/P/19 for the erection of 15 houses (modification to 0891/MSC/22 - increase of one unit)	Awaiting decision	260m north
0442/FUL/23	Installation of an entrance feature wall	Granted Planning Permission	180m north
0169/FUL/23	Erection of sales cabin and associated landscape and infrastructure works	Granted Planning Permission	272m north
0579/FUL/23	Siting of staff welfare cabin and bunded tank, erection of fence and formation of parking area	Granted Planning Permission	77m north

Reference	Proposal	Status	Distance from scheme
0891/MSC/22	Approval of matters specified in conditions of planning permission 1019/P/19 for the erection of 357 houses and 55 flats	Granted Matters Specified in Conditions	211m north

A large construction site is located 211m north which relates to planning application 0891/MSC/22 for the development of Bangour Village Estate. Construction of this site started in 2023 and is currently ongoing. While this will occur at the same time as the works, no cumulative impacts are expected due to the minor nature of the BEAR Scotland resurfacing scheme, given that it will be completed over the course of eight nights and on a rolling programme.

Furthermore, while it is not possible to gain an understanding on the timing or duration of the remaining planning applications detailed above, it is considered that even in the event that the above planning applications were being progressed at the same time as the planned BEAR Scotland resurfacing works, no in-combination effects are expected. This is due to the small scale nature of the remaining applications which relate to alterations to an existing house, the demolition / construction of a small number of retail properties, a small housing development and erection of a sales cabin and site welfare cabin, coupled with the minor nature of the resurfacing works, which as stated above will be of a short duration undertaken on a rolling programme.

## Assessments of the environmental effects

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

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

This is a relevant project in terms of section 55A(16) of the Roads (Scotland) Act 1984 as it is a project for the improvement of a road and the completed works (together with any area occupied by apparatus, equipment, machinery, materials, plant, spoil heaps, or other such facilities or stores required during the period of construction) exceed 1 hectare in area.

The project has been subject to screening using the Annex III criteria to determine whether a formal Environmental Impact Assessment is required under the Roads (Scotland) Act 1984 (as amended by The Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017). Screening using Annex III criteria, reference to consultations undertaken and review of available information has not identified the need for a statutory EIA.

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

Characteristics of the scheme:

- Works are restricted to like-for-like replacement of worn road surface, with all works restricted to made ground on the M8 carriageway surface.
- Works are not expected to result in significant disturbance to protected species that may be present in the wider area.
- No works are required within Drain1 or Waterbody1, therefore there will be no change in the hydrological regime or water quality within Drain1 or Waterbody1.
- No in-combination effects have been identified.
- The risk of major accidents or disasters is considered to be low.
- Removing the carriageway defects will provide this section of the M8 with another life cycles and will improve the ride quality of the road which will result in safer conditions for road users.
- Any potential impacts of the works are expected to be temporary, short-term, not significant, and limited to the construction phase. No impacts on the environment are expected during the operational phase as a result of the works.
- As the works are restricted to the like-for-like replacement of 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.

Location of the scheme:

- The scheme is not situated within 2km of, and does not share connectivity with, a 'sensitive area' designated for biodiversity features e.g., SAC, SPA, Ramsar, SSSI etc.
- The scheme will not have any impact on the Bangour Village Hospital Conservation Area located 140m north.
- The scheme is not located within any areas designated for landscape interests.
- Land use will not change as a result of the works.
- The works do not require any private land acquisition.
- The scheme does not lie within any sites designated for geology and soils.
- The majority of the scheme is not located within a densely populated area.

Characteristics of potential impacts of the scheme:

- The waste hierarchy will be followed to reduce waste to landfill and increase recycling.

- Works are programmed to take eight nights to complete on a rolling programme, with the aim being to complete the noisiest works by 23:00.
- With good practice pollution prevention measures implemented onsite, there is a negligible risk of a pollution event e.g., compliance with the SEMP.

## 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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