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Environmental Impact Assessment Record of Determination

A702 Overburns to Coulter

Contents

Project Details **3**
Description 3
Location 4
Description of local environment 4
Air quality 4
Cultural heritage 5
Landscape and visual effects 6
Biodiversity 8
Geology and soils 9
Material assets and waste 9
Noise and vibration 10
Population and human health 10
Road drainage and the water environment 11
Climate 11
Policies and plans **12**
Description of main environmental impacts and proposed mitigation **13**
Air quality 13
Landscape and visual effects 14
Biodiversity 14
Material assets and waste 16
Noise and vibration 18
Population and human health 20
Road drainage and the water environment 21
Climate 22
Vulnerability of the project to risks 23
Assessment cumulative effects 23
Assessment of the environmental effects **24**
Statement of case in support of a Determination that a statutory EIA is not required **24**
Annex A **26**

Project Details

Description

BEAR Scotland has been commissioned by Transport Scotland to carry out resurfacing works on the A702 carriageway. The works will consist of a surface course inlay throughout the scheme extents, with sections of deeper 100mm to 190mm patches and the reinstatement of road markings for a length of 3168m (1.3ha).

The construction activities for the resurfacing procedure are as follows:

- Set up traffic management (TM) and mark out site.
- Milling of existing bituminous material by road planner.
- Jackhammer and compressor for breaking up surfaces not accessible by planer (e.g. around gullies).
- Loader/excavator used to collect and move excess material.
- 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 (in accordance with Chapter 5).
- Remove TM and open road.

The works are currently programmed to be completed within the 2024/2025 financial year with works expected to begin on 21st August 2024. Works are programmed to be completed over 13 nights, excluding Saturdays and Sundays (19:30-06:00). Traffic management (TM) will comprise of a full night-time closure of the A702 between Overburns and Coulter. Traffic will be diverted between Maidencoates Roundabout and Melbourne Crossing adding an additional 16 minutes and 11.7 miles to journey time. There are no pedestrian routes, or other community assets, with connectivity to the scheme extents.

Location

The scheme lies on the A702 carriageway, south of Coulter (Figure 1).

Figure 1: Location Plan of Scheme Extents – Source: Asset Management System (AMPS). © Europa Technologies Ltd. Contains Ordnance Survey data © Crown copyright and database right 2018.

Description of local environment

Air quality

Properties within 300m of the scheme – refer to 'Population and Human Health'.

A search of the Air Quality in Scotland online mapping tool records that air quality zones in the wider area record bandings in the 'green zone' (Low Index 1-3).

The scheme lies within the boundary of South Lanarkshire Council, which has three AQMA's within its administrative boundary. The nearest AQMA, 'Lanark Air Quality Management Area,' lies approx. 14.8km north west of the scheme extents and has been declared for nitrogen dioxide (NO_2).

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

- Kirklawhill Poultry Farm, Broughton, by Biggar – Intensive Livestock Production and Aquaculture, declared for ammonia (NH_3), lies approx. 7km north east of the scheme.
- St. John's Kirk, Symington, Near Biggar – Intensive Livestock Production and Aquaculture, declared for ammonia (NH_3), lies approx. 4.6km north west of the scheme.

The baseline air quality within the scheme extents is primarily influenced by motor vehicles travelling along the A702 trunk road. Secondary sources are derived from day-to-day woodland and agricultural land management activities.

Cultural heritage

The PastMap and Historic Environment Scotland (HES) online mapping tool records that the northern scheme extents border the Coulter Conservation Area (CA). The architectural buildings within Coulter CA comprise important characteristics which help bind the buildings together to form pleasing groupings and individual detailing which should be safeguarded.

An additional 11 designated cultural heritage assets lie within 300m of the scheme extents, the closest of which lies approx. 20m north east of the scheme:

- Mill Cottage – Category C Listed Building (LB1428).

The remaining cultural heritage assets do not share connectivity with the scheme extents i.e., they lie >20m from the scheme.

Of lesser cultural heritage importance, approx. 21 undesignated cultural heritage assets (UCHAs) lie within 300m of the scheme extents, the closest of which lies approx. 20m north east of the scheme:

- Mill Cottage – Canmore (ID: 228558).

The remaining UCHA's do not share connectivity with the scheme extents i.e., they lie >20m from the scheme.

Construction of the A702 is likely to have removed any archaeological remains that may have been present within the trunk road boundary. The potential for the presence of unknown archaeological remains in the study area has therefore been assessed to be low.

While the works border the conservation area they are located outwith its boundary and given that they consist of like-for-like replacement of the road surface they do not have the potential to impact upon the cultural heritage designation. As such this

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 scheme extents fall within three Landscape Character Type's (LCT), the 'Southern Uplands – Glasgow & Clyde Valley' (no. 217), 'Upland Glen – Glasgow & Clyde Valley' (no. 209) and 'Broad Valley Upland' (no. 208). The key characteristics of 'Southern Uplands – Glasgow & Clyde Valley' are:

- Extensive, large-scale upland landscape with strong but smooth relief.
- Glacial carved and smoothed landforms, including u-shaped valleys, hanging valleys and corries.
- Extensive mosaics of heath, with a transition to rough grazing on lower tops or slopes.
- Prominent isolated conifer forests and old stands of Scots pine.
- Largely undeveloped, except for occasional upland farms, shielings and Clyde wind farm.
- Important travel and transmission lines pass through the area are the A74, west coast mainline railway and Scotland-England interconnector pylon line.
- Significant archaeological sites, particularly from the Bronze and Iron Age periods.
- Prominent hill ranges in views from many areas.
- Wide ranging panoramic views from the hill summits.

The key characteristics of 'Upland Glen – Glasgow & Clyde Valley' are:

- Glacially enlarged, smoothly contoured, U-shaped valleys cutting into the upland mass of the Southern Upland.
- Transition from moorland vegetation on upper slopes, through rough grassland and pastures on valley floor.
- Topography creates distinctive scenic vistas.
- Limited amounts of broadleaf woodland which tends to be concentrated along the course of rivers, on steeper sheltered slopes and in gullies and side glens.
- Important corridors for communication and settlement.
- Scattering cumulative impacts of transport infrastructure in the glen of the River Clyde, with large scale wind farm development on the surrounding Southern Upland hills.

- Small scale, domesticated character of glen floors, despite dominant transport infrastructure, which contrasts with the enclosing uplands.

The key characteristics of 'Broad Valley Upland' are:

- Medium to large scale landscape comprising a broad, flat bottomed, basin-like valley enclosed by the rounded hills to the north and the Southern Uplands - Glasgow & Clyde Valley to the south.
- Distinctive pattern of tree cover comprising shelterbelts on lower hill slopes and lines of mature trees along field boundaries.
- Medium to large agricultural field in central areas.
- Scattered pattern of rural settlement.
- Important navigation route evidenced by Roman camps and a road, which significant modern transport routes follow.
- Views predominantly focussed along the valley.

The national scale land capability for agriculture classifies land surrounding the scheme as being:

- 'Class 3.2' - Land capable of average production though high yields of barley, oats and grass can be obtained. Grass leys are common.
- 'Class 4.1' - Land capable of producing a narrow range of crops, primarily grassland with short arable breaks of forage crops and cereal.

Seven areas recorded as being native on the Native Woodland Survey of Scotland lie within 300m of the scheme extents:

- Nearly-native woodland (approx. 3.8ha), the closest of which is approx. 250m east of the scheme.
- Nearly-native upland birchwood (approx. 1.7ha), located approx. 120m north west of the scheme.
- Native upland birchwood (approx. 2.4ha) which borders the A702 within the southern extents of the scheme.

One area recorded as being ancient on the Ancient Woodland Inventory Scotland lies within 300m of the scheme extents:

- Long-established of plantation origin (approx. 21.8ha) which partially borders the A702 within the southern extents of the scheme.

Additional woodland within 300m of the scheme extents consists of:

- Broadleaved woodland (approx. 12.7ha).

- Young trees (approx. 18.8ha).
- Conifer woodland (approx. 55.1ha).
- Assumed woodland (approx. 4.5ha).

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 low volume, fast-flowing traffic, road markings, 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, any 'European Sites' designated for biodiversity features e.g., SAC, SPA, Ramsar.

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

A search of the NBN online mapping tool records no invasive non-native species (INNS), injurious weeds (as listed under The Weeds Act 1959) or invasive native perennials (as listed in the Trunk Road Inventory Manual) within 2km of the scheme extents (within the last 10-years).

A search of the Asset Management Performance System (AMPS) online mapping tool records rosebay willowherb *(Chamaenerion angustifolium)*, an invasive native perennial, within the scheme extents (2018).

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 alongside sections of broadleaved tree and shrub shelterbelt and woodland areas. 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 fast-flowing traffic. The presence of the trunk road also restricts continuity of, and connectivity between, habitats either side of the trunk road boundary.

Out with the trunk road boundary, agricultural land, predominantly pastoral fields, dominates the landscape with smaller pockets of plantation woodland bordering and in proximity to the road. The result of this intensive land management is to restrict the occurrence of semi-natural and natural vegetation types.

Geology and soils

The A702 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 the generalised soil type and major soil group within the scheme extents is Brown Soils.

The British Geological Survey online mapping tool records that the superficial geology within the scheme extents is comprised of:

- Till, Devensian (Diamicton).
- Alluvium (Silt, Sand and Gravel).

The bedrock geology within the scheme extents is recorded as:

- Biggar Volcanic Formation, Basaltic Lava and Andesitic Lava.
- Biggar Volcanic Formation (Conglomerate).

There is no evidence if 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:

- TS2010 10mm surface course Site Class 1 and 3.
- AC20 dense binder 40/60pen.
- AC20 dense base 40/60pen.
- Tack/bond coat.
- Paving grade bitumen.

- Eurolite thermoplastic road markings.
- Eurolite screed road markings.
- Embedded and surface mounted road studs.

The value of the scheme is greater than £350,000 therefore, a Site Waste Management Plan (SWMP) is required.

The 3168m scheme involves removal of the surface course and localised areas of base and binder course. In total, approx. 5927 tonnes of bituminous material (European Waste Catalogue Code: 17 03 02) will be removed from site, 608 tonnes of which is classified as hazardous material containing coal tar (European Waste Catalogue Code: 17 03 01*). Of the coal tar planings, approx. 124 tonnes will be disposed of at an approved facility and approx. 483 tonnes will be re-used on site under ex-situ recycling clause 948 of the specification for highway works.

Noise and vibration

Receptors – refer to 'Population and Human Health.'

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

There is no record on Scotland's Noise Scotland's Environment of the night-time modelled noise level (Lnight) within the scheme extents. However, as noted within 'Population and Human Health' traffic flows are generally low through the scheme and as such, noise levels are not expected to be high.

Baseline noise and vibration in the study area is mainly influenced by vehicles traveling along the trunk road. Secondary sources are derived day-to-day agricultural management activities.

Population and human health

Several residential properties lie within 300m of the scheme extents, particularly at the north eastern extents within the village of Coulter. A small number of these residential properties border the A702 within the scheme extents and have little to no screening with only narrow hedgerows separating them from the works. The remaining properties are partially screened from the scheme by intervening properties and vegetation (trees, hedgerows) present within gardens bordering the roadside.

In addition to the above, Coulter Hall lies approx. 260m north east of the scheme and Coulter Primary School lies approx. 239m north east of the scheme, both of which

are screened from the scheme extents by intervening properties and dense woodland.

Street lighting is absent throughout the scheme.

There are no non-motorised (NMU) or community facilities with connectivity to the scheme extents.

The A702, within the scheme extents is a single carriageway with the national speed limit applying. The Annual Average Daily Traffic (AADT) flow is low (4,206 motor vehicles (ID: 10792, 2023)) (Road Traffic Statistics).

Road drainage and the water environment

The Scottish Environment Protection Agency (SEPA) River Basin Management Plan online mapping tool records one classified surface waterbody within 300m of the scheme extents:

- Coulter Water is a river (ID: 10107) in the River Clyde catchment of the Scotland River basin district. The main stem is approx. 12.7km in length, is classified as 'Good' and lies approx. 62m south east of the scheme. The waterbody is separated from the scheme by the A702 mainline and residential properties.

Two unnamed and unclassified waterbodies which are tributaries of Coulter water lie within 300m of the scheme extents, with one located approx. 74m south east and one approx. 52.5m north of the scheme (at their nearest point).

A search of the SEPA's Flood Map online mapping tool records that the trunk road within the scheme extents is not at risk of surface water flooding.

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

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 (NVZ).

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_2 emissions by 80% before 2050 (from the baseline year 1990). The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 amended the Climate Change (Scotland)

Act 2009 to bring the target of reaching net-zero emissions in Scotland forward to 2045 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019).

The Scottish Government has since published its indicative Nationally Determined Contribution (iNDC) to set out how it will reach net-zero emissions by 2045, working to reduce emissions of all major greenhouse gases by at least 75% by 2030 (Scotland's contribution to the Paris Agreement: indicative Nationally Determined Contribution - gov.scot (www.gov.scot)). By 2040, the Scottish Government is committed to reducing emissions by 90%, with the aim of reaching net-zero by 2045 at the latest.

Transport Scotland is committed to reducing carbon across Scotland's transport network and this commitment is being enacted through the Mission Zero for Transport (Mission Zero for transport | Transport Scotland). Transport is the largest contributor to harmful climate emissions in Scotland. In response to the climate emergency, Transport Scotland are committed to reducing their emissions by 75% by 2030 and to a legally binding target of net-zero by 2045.

Policies and plans

This Record of Determination has been undertaken in accordance with all relevant regulations, guidance, policies and plans, notably including the Environment and Sustainability Discipline of the Design Manual for Roads and Bridges (Design Manual for Roads and Bridges (DMRB)) and Transport Scotland's Environmental Impact Assessment Guidance (Guidance - Environmental Impact Assessments for road projects (transport.gov.scot)).

Description of main environmental impacts and proposed mitigation

Air quality

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 cold milling in preparation of carriageway resurfacing, as well as exhaust emissions from ancillary plant and vehicles. As a result, there is potential for impacts to local air quality.

However, considering the nature and duration of the scheme, along 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.
- 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.
- 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).
- 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 activities that have the potential to impact local air quality are occurring. In the unlikely event that unacceptable dust or exhaust emissions 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) minimizing cutting and grinding on-site, (b) reducing the operating hours, (c) 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 on the A702, and construction works are programmed to be undertaken at night (13 nights). As such, the visual impact of the works will be somewhat reduced.

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

Upon completion of the works, no residual impacts on landscape and visual effects are anticipated e.g., when complete the visual appearance will remain largely unaffected, with a renewed road surface being the only discernible change.

Landscape and visual effects mitigation measures:

- 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.
- 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.

Biodiversity

A temporary short-term increase in noise levels may cause disturbance to local wildlife if present in the vicinity of the works. 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 delivery of materials and the presence of personnel to facilitate the improvements to the road surface. 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 noise and visual disturbance pertaining to vehicle movements on the A702, furthermore, the scheme is of a short duration (13 nights). The potential for significant species disturbance within the area of construction is therefore somewhat diminished.

Invasive native perennial rosebay willowherb has been identified along the verge within the scheme extents. However, all works are restricted to the existing made-ground on the A702 carriageway surface, with only like-for-like replacement of carriageway road surface being undertaken. As such, there is limited potential for the spread of rosebay willowherb or introduction of INNS, injurious flowering plants, or any other invasive native perennial species.

Considering the nature, duration, size, and scale of the scheme, and with implementation of mitigation detailed above, the proposed works impacts on biodiversity throughout the construction period is 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:

- 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 tree shelterbelt, woodland etc.) to ensure minimal impact on nocturnal species.
- All site workers will have received adequate training relevant to their role prior to working on the site, including specific environmental inductions and ‘toolbox talks’ as required.
- Given that rosebay willowherb is recorded within the verge of the scheme extents, Toolbox Talk TTN-009 ‘Working with Injurious Weeds & Invasive Plants’, will be briefed to all staff 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 (including compounds), works will be temporarily halted until the animal(s) move at least 50m away from the construction site, or until BEAR Scotland’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 (including birds) to move away from the disturbance.
- All equipment stored onsite, if necessary, will be checked at the start of each workday to ensure mammal species are not present. Any storage containers/plant within the compound will also be secured overnight to prevent exploration by 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 are required to be undertaken out with the carriageway boundary.
    - 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.

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. Furthermore, the reuse of coal tar plannings on site after ex-situ recycling will result in a reduction of waste being sent to landfill. Specifying TS2010 surface course also 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 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 UK legislation.

Considering the nature, duration, size, and scale 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 assets and waste mitigation measures:

- A SWMP will be completed by the Designer and Contractor as required.
- Good materials management methods (e.g., 'just-in-time' delivery) will be implemented wherever possible.
- 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. Waste transfer notes and/or waste exemption certificates (if required) will also be completed and retained.
- The contractor will be responsible for gaining SEPA approval for the ex-situ recycling of tar bound planings prior to the commencement of works.
- The Contractor is responsible for the reuse / disposal of road planings, and this has been registered in accordance with a Paragraph 13(a) waste exemption issued by SEPA as described in Schedule 3 of the Waste Management Licensing Regulations 2011 (exemption number: WML/XS/2008617), the rules of which will be complied with.
- Approximately 607 tonnes of bituminous material classified as hazardous due to the presence of coal tar will be appropriately processed of 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 road planings will be transported by a registered waste carrier and be accompanied by a SEPA-issued consignment note or code.

SEPA will be notified, at least 72 hours before and no longer than one month before, prior to Special Waste leaving site. The approx. 124 tonnes being disposed of 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.

- Designated areas will be identified within which all materials and personnel, including construction compounds, where necessary, 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 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 their relevant waste regulations. 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 road works will, for example, require a range of ancillary plant, vehicles and NRMM for cold milling in preparation for carriageway resurfacing. Noise will also be generated by using breakers (jackhammers), chipping hammers, use of rollers, etc. As a result, there is potential for noise and vibration effects to residential properties within the local area, the closest of which border the A702 within the scheme extents.

However, the works are not located within a CNMA or CQA, and works will also be completed over 13 nights, with the aim being to complete the noisiest works by 23:00. In addition, the proximity of road space suggests that residents have a degree of tolerance to noise and disturbance.

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 the 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.

Considering the likely sources of noise and vibration, with 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.

Noise and vibration mitigation measures:

- The local authority environmental health department will be notified of nighttime working by BEAR Scotland's design engineer.
- 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.
- 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 will be undertaken away from surrounding properties, if possible.
- 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) minimizing cutting and grinding on-site, (b) reducing the operating hours, (c) repositioning equipment, (d) changing the method of working etc. Corrective actions will be actioned through the non-conformance 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, TM will only be in place for 13 nights (when traffic flows will be at a minimum), and no congestion issues are noted during the proposed construction hours.

As noted above, residential properties are found bordering and in proximity to the scheme extents. As such there is potential for impacts to local residents in the form of noise / vibration impacts, visual disturbance and delays due to traffic management. However, providing mitigation measures detailed below, and those listed within the noise and vibration section, are adhered to the impacts are assessed to be somewhat reduced.

Considering the nature, duration, size, and scale of the scheme, and with implementation of the mitigation described above, impacts on population and human health are assessed as temporary, minor adverse in magnitude. Upon completion of the works, there will be a positive impact in relation to population and human health due to the improvement of usability and safety provided by the new carriageway surface.

Population and human health mitigation measures:

- Where appropriate, a communication strategy (e.g., social media, consultation with local authority and other stakeholders etc. will be initiated to keep local residents and/or businesses informed of the proposed working schedule, particularly the times and durations of noisy construction activities. The communication strategy will also provide a 24-hour contact number for the BEAR Scotland Control Room.
- Given the proximity of the residential properties to the scheme, Toolbox Talk TTN-042 'Being a Good Neighbour' will be briefed to all staff prior to works commencing.
- Advanced signage will be strategically placed on the trunk road seven days in advance to notify road users of the road closure and diversion.
- 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.
- 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 resurfacing works, 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 sediments, particulate matter, chemicals, fuels or by mobilisation of these in surface water caused by rain) during works have the potential to have a direct or indirect effect surrounding waterbodies.

However, the works are not hydrologically connected to any surrounding waterbodies with the closest being found approx. 52m north of the scheme. Furthermore, the works will be restricted to the existing A702 carriageway and all land outwith the A702 road boundary is also considered out-of-bounds to all construction staff during the works (i.e., no 'in-water' works required). As such providing mitigation measures detailed below are adhered to the risk of impacting surrounding waterbodies is considered to be negligible.

Considering the nature, duration, size, and scale 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.

Road drainage and the water environment mitigation measures:

- If any works are identified that would require entering a waterbody, 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 surface waterbodies identified will not be permitted.
- 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, set back from the carriageway verge and filter drains. Refuelling will only be undertaken at designated refuelling areas (e.g., on

hardstanding, with spill kits available, and >10m from any waterbodies, and 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 will have 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 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 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 and adverse in magnitude.

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

Climate mitigation measures:

- Local contractors and suppliers will be used as far as practicable to reduce fuel use and greenhouse gases emitted as part of the works.
- BEAR Scotland will adhere to its Carbon Management Policy.
- A proportion of the coal tar planings will be undergo ex-situ recycling reducing the volume of waste being sent to landfill.

- Where possible, waste will be removed to local waste management facilities.

Vulnerability of the project to risks

There will be no change to the likelihood of flooding on the A702 within the scheme extents upon completion of the works.

Works are restricted to areas of made ground on the A702 carriageway surface, with access to the scheme gained via the A702 mainline as per TM restraints. TM will employ of full night-time road closures between Overburns and Coulter. Traffic will be diverted between Maidencoates Roundabout and Melbourne Crossing adding an additional 16 minutes and 11.7 miles to journey time. Furthermore, no other community assets with connectivity to the scheme extents that have the potential to be impacted. As such, the proposed works impacts on road traffic accidents are 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 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 using the South Lanarkshire Council 'Simple Search' identified no planning applications within 300m of the scheme extents within the last two years.

A search of the Scottish Road Works Commissioner's website (map search) has identified that no other road works are currently ongoing, or noted as being planned, on the A702 trunk road or surrounding roads in proximity to the scheme which will be undertaken at the same time.

Considering the nature and scale of the minor resurfacing works being undertaken by BEAR Scotland, no in-combination effects are anticipated.

Assessment 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/damaged road surface, with all works restricted to made ground on the A702 carriageway surface.
- Works are not expected to result in significant disturbance to protected species that may be present in the wider area.
- The risk of major accidents or disasters is considered to be low.
- By removing the carriageway defects, this will provide this section of the A702 carriageway with another life cycle, and significantly improve the rid quality, which will result in safer road 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.

Location of the scheme:

- The scheme is not situated within 2km of and does not share connectivity with any ‘European Sites’ designated for biodiversity features.

- The scheme does not lie within any sites of historical, cultural, or archaeological significance but borders Coulter CA, however, due to the nature of the works it will not be impacted.
- 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 scheme is not located in a densely populated area.

Characteristics of potential impacts of the scheme:

- The waste hierarchy will be followed to reduce waste to landfill.
- Works are programmed to take 13 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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