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# Environmental Impact Assessment Record of Determination

A6091 Tweedbank

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# **Project Details**

## Description

BEAR Scotland has been commissioned by Transport Scotland to carry out improvements to an existing footpath adjacent to the northbound (NB) lane of the A6091. The works will include milling and widening the existing footpath and installing blister tactile tiles at junctions and dropped kerbs at pedestrian crossing locations. Hard standing tiles will be installed between the carriageway and the footpath edge. Excavation is required across the length of the scheme to allow the footpath to be widened to a width of either 3 m or 4 m. Some vegetation clearance is necessary to accommodate the wider footpath. Where the verge is to be widened at the roundabout a retaining wall and a filter drain will be installed.

Construction activities include:

- set up traffic management (TM) and mark out site;
- remove vegetation;
- break-out existing surface;
- remove existing kerbs;
- loader/excavator used to collect and move waste material;
- lighting columns to be relocated to accommodate footpath (where necessary);
- dig out foot of embankment and install small retaining wall with filter drain;
- replace and install new signage;
- sweep area to collect loose material and provide clean laying surface;
- replace kerbs and lay material and compress;
- replace tactile paving;
- remove TM and open road.

The works are currently programmed to commence within the 2022/2023 financial year (March 2023), with works to continue into the 2023/2024 financial year (April 2023 to February 2024). Works are expected to be completed over twenty days (09:30 – 15:30). Traffic management (TM) is currently anticipated to be in the form of daytime temporary traffic lights. Traffic lights would be removed each night and implemented again in the morning. Pedestrians and other non-motorised users (NMUs) utilising the footpath where works are scheduled will be accommodated within TM arrangements.

## Location

The scheme lies on the periphery of Darnick, with urban development bordering the southbound (SB) carriageway and agricultural land bordering the NB carriageway (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

The scheme lies within the boundary of the Scottish Borders Council, which no <u>Air</u> <u>Quality Management Areas</u> (AQMAs) within its administrative boundary. The nearest AQMA, 'City Centre', lies within the City of Edinburgh administrative boundary approx. 46 km northwest of the scheme and has been declared for nitrogen dioxide (NO<sub>2</sub>).

There are no sites registered on the Scottish Pollutant Release Inventory (SPRI) for air pollutant releases within 1 km of the scheme.

Baseline air quality is mainly influenced by vehicles travelling along the trunk road. Secondary sources are likely derived from day-to-day urban activities, agricultural land management activities, and vehicle movement on the local road network.

# **Cultural heritage**

The <u>PastMap</u> and <u>Historic Environment Scotland</u> (HES) online mapping tools records fifteen listed buildings (LBs) within 300 m of the scheme. The nearest LB, 'Darnick Village Smith's Road Darnick Dairies' (Category C), lies outwith the trunk road boundary approx. 50 m east of the scheme. All LBs lie within 'Darnick' Conservation Area, which lies 35 m northeast of the scheme (at its nearest point). The scheme extents also lie within the boundary of the 'Battle of Darnick' Inventory Battlefield (IB) (BTL30).

Seventy-four undesignated cultural heritage assets (UCHAs) lie within 300 m of the scheme. One UCHA is recorded as being within the scheme extents and pertains to Tweedbank Industrial Estate. There is no connectivity between the scheme and the remaining UCHAs e.g., the nearest lies approx. 10 m northeast of scheme and pertains to a 19<sup>th</sup> century railway which is now used as a footpath.

#### Landscape and visual effects

The scheme is not situated within a National Park (NP).

The eastern scheme extents partially lie within the 'Eildon and Leaderfoot' National Scenic Area (NSA) (EU Site Code 18989). 'Eildon and Leaderfoot' NSA is designated for its special qualities: (i) great landscape diversity within a compact area, (ii) the distinctive triad of the Eildon Hills, (iii) spectacular views from the hill summits, (iv) a strongly united landscape pattern of lively rhythm and colour, (v) a richly wooded scene of great variety, (vi) the Tweed, an iconic river of international renown, (vii) a rich array of historic buildings, structures and estates (viii) the hub of Border settlement, (ix) a harmonious and varied prospect from unequalled viewpoints, (x) inspiration for the arts, literature and painting, (xi) Border country ballads and battles, (xii) the historic crossings of Leaderfoot, (xiii) Scott's View, and (xiv) the Wallace Statue.

The Landscape Character Type (LCT) in the study area is 'Settled Upland Fringe Valley' (no. 118) (Scottish Landscape Character Types). 'Settled Upland Fringe Valley' is found at the center of the Scottish Borders region where the River Tweed emerges from the uplands to join with two of its major tributaries, the Ettrick and the Gala. It is a densely settled, well ordered landscape of arable land, pasture and woods, in an enclosed valley setting. Land cover in the study area is recorded as a mixture of 'broadleaved deciduous woodland', 'agriculturally-improved', 're-seeded and heavily fertilized grassland, including sports fields and grass lawns', 'arable land and market gardens', and 'buildings of cities, towns and villages/low density buildings' (Scotland's Environment).

Land use within 2 km of the scheme is categorised into the following: (i) rectilinear fields & farms (ii) urban area, (iii) medieval village, (iv) industrial or commercial area, and (v) plantation.

The scheme lies on the periphery of Darnick, with urban development bordering the SB carriageway and agricultural land bordering the NB carriageway.

The <u>national scale land capability for agriculture</u> classifies land surrounding the scheme as being '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). Field patterns are an important landscape element, varying in size and shape to fit the local topography. Field boundaries, for example, highlight the landform by accentuating undulating land and flatter areas. Most field boundaries are post-and-wire fencing, with vegetative features further delineating field boundaries e.g., shrub hedgerow, rough grassland, ruderal herb stands, scrub and tree shelterbelt.

Approx. 3.3 ha of 'young trees' (registered on the <u>Native Woodland Survey of</u> <u>Scotland</u>) border the SB carriageway at the central and northern scheme extents. A 1.1 ha area of broadleaved tree shelterbelt borders the trunk road boundary at Melrose Roundabout at the northern scheme extents. There are no areas of woodland registered on the <u>Ancient Woodland Inventory Scotland</u> in proximity to the scheme extents.

# **Biodiversity**

The <u>NatureScot Sitelink</u> online mapping tools identifies that the scheme is not situated within, and does not share connectivity with, a 'sensitive area' designated for biodiversity features e.g., Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar, Site of Special Scientific Interest (SSSI), etc.

The scheme is not situated within a Local Nature Conservation Site (LNCS) or Local Nature Reserve (LNR) designated for biodiversity features.

The <u>National Biodiversity Network</u> (NBN) records nine mammal species of conservation importance within 2 km of the scheme (in last 10-years) within 10 km grid square NT17. A Preliminary Ecological Appraisal (PEA), undertaken on the 31<sup>st</sup> January 2023, did not note any signs of protected mammal species (e.g. permanent habitat, feeding signs, resting places, droppings, etc.).

The trees which are planned to be felled are not protected by a Tree Preservation Order (TPO) and have no other statutory or non-statutory protection.

The Preliminary Roost Assessment (PRA), undertaken on the 31<sup>st</sup> January 2023, found no bats or evidence of bats (e.g., droppings, scratching, staining) roosting in the trees which are planned to be felled. The trees were also noted to have negligible summer and winter bat roost potential. No birds were observed nesting in the trees at the time of the survey.

A search of the NBN online mapping tool records Giant hogweed (*Heracleum mantegazzianum*), Himalayan balsam (*Impatiens glandulifera*), and Japanese knotweed (*Reynoutria japonica*) (all invasive non-native species (INNS)) within 2 km of the scheme extents. The nearest record pertains to Japanese knotweed recorded in 2022, approx. 240 m east of the scheme. A search of the Asset Management Performance System (AMPS) online mapping tools records Rosebay willowherb (*Chamaenerion angustifolium*) (an invasive native perennial (as listed in the Trunk Road Inventory Manual)) within the trunk road boundary scheme extents. There are no records of INNS or injurious weeds (as listed in the Weeds Act 1959) recorded throughout the scheme extents. The PEA did not note any INNS, injurious weeds or invasive native perennials within the scheme extents.

### **Geology and soils**

The A6091 within the scheme extents is not located within a <u>Geological</u> <u>Conservation Review Site</u> (GCRS), and there are no <u>Local Geodiversity Sites</u> (LGS) with connectivity to the scheme extents.

The <u>National Soil Map of Scotland</u> online mapping tool records that the Generalised Soil Type and Major Soil Group within the study area is Brown soils.

The <u>British Geological Survey</u> online mapping tool records that the superficial geology underlying the scheme extents is comprised of (i) Glaciofluvial Deposits (gravel, sand and silt), and (ii) Till, Devensian (diamicton). The bedrock geology underlying the scheme extents is comprised of Hawick Group (wacke).

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

#### Material assets and waste

The proposed works involve widening the existing footway, installing a retaining wall with filter drain, and some minor vegetation clearance. Materials used will consist of:

- Type one pedestrian footway
- Concrete
- Type 2 filter material

The scheme is executed by the operating company as site operations e.g. 'As-of-Right' scheme of value less than £350,000. As a result, a Site Waste Management Plan (SWMP) is not required.

The main wastes produced during the construction phase will be 329.6 tonnes of bituminous material (European Waste Catalogue (EWC) Code: 17 03 02) (which will be removed from site), and 1095.5 tonnes of excavated verge material. The verge material to be excavated was tested at various locations across the scheme extents and no contamination was found. This material has therefore been classified as 'soil and stones other than those mentioned in 17 05 03' e.g., non-hazardous (EWC Code: 17 05 04), and will be backfilled on site.

## **Noise and vibration**

Works are not located within a <u>Candidate Noise Management Area</u> (CNMA) or <u>Candidate Quiet Area</u> (CQA).

The day-time modelled noise level (Lden) within the scheme extents ranges between 65 and 70 decibels, with noise levels dropping to between 60 and 65 decibels at the nearest NSR (residential property) (<u>Scotland's Noise Scotland's Environment</u>).

Baseline noise levels are mainly influenced by vehicles travelling along the trunk road. Secondary sources are likely derived from day-to-day urban activities, agricultural land management activities, and vehicle movement on the local road network.

## **Population and human health**

Numerous properties (including an ambulance station, Borders General Hospital, Tweeddale Industrial Park, Darnick Village Hall and a farmstead) lie within 300 m of the scheme. Approx. ten properties lie within 50 m of the scheme and have limited screening from the trunk road provided by hedgerow/tree shelterbelt (5 m wide). The ambulance station lies approx. 60 m southeast of the scheme and has limited screening from the scheme by tree shelterbelt (10 m wide). The hospital lies 150 m southeast of the scheme and is screened tree shelterbelt (10 m wide) and the intervening ambulance station. The remaining properties are screened by a combination of intervening properties, roadside embankment, and tree shelterbelt (approx. 35 m wide).

The works are scheduled to take place on the local shared footpath (utilised by pedestrians, cyclists, mobility scooters, etc.), which runs parallel with and adjacent to the NB lane of the trunk road for the length of the scheme extents. Street lighting is present across the scheme extents.

The A6091, within the scheme extents, is a single-lane carriageway with the national speed limit applying throughout. The Annual Average Daily Traffic (AADT) flow is 20,103 (ID: 92124, 2021 data) (<u>Road traffic statistics</u>) and is comprised of:

- 81 two wheeled motor vehicles,
- 16,617 cars and taxis,
- 53 bus and coaches,
- 2,816 Light Goods Vehicles (LGVs), and
- 535 Heavy Goods Vehicles (HGVs).

There is an average of 3 pedal cycles using the route per day.

There are no congestion issues noted on the A6091 within the scheme extents during the proposed working hours.

#### Road drainage and the water environment

The <u>Scottish Environment Protection Agency</u> (SEPA) River Basin Management Plan online mapping tool records no classified or unclassified surface waterbodies spanned by, culverted beneath or which share direct connectivity with the scheme extents.

The works lie on the 'Peebles, Galashiels and Hawick' and 'Upper Tweeddale Sand and Gravel' <u>groundwaters</u>, (which are also <u>Drinking Water Protected Areas</u>), which have been classified as 'Good'.

The works do not lie within a Nitrate Vulnerable Zone.

The SEPA indicative surface water online <u>flood mapping</u> tool records that an approx. 90 m stretch of the trunk road, within the scheme extents, is at a high risk of surface water flooding (e.g., each year this area has a 10% chance of flooding).

Road drainage is provided by roadside gullies.

## Climate

The Climate Change (Scotland) Act 2009 sets out the target and vision set by the Scottish Government for tackling and responding to climate change (<u>The Climate</u> <u>Change (Scotland) Act 2009</u>). The Act includes a target of reducing CO2 emissions by 80% before 2050 (from the baseline year 1990). The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 amended the Climate Change (Scotland) Act 2009 to bring the target of reaching net-zero emissions in Scotland forward to 2045 (<u>Climate Change (Emissions Reduction Targets</u>) (Scotland) Act 2019.

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

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

# **Policies and plans**

This Record of Determination 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 excavation of the existing footpath and grassed verge, as well as exhaust emissions from ancillary plant and vehicles. As a result, there is potential for dust, particulate matter, and exhaust emissions (DPMEE) to be emitted to the atmosphere.

However, the scheme is not located within an AQMA, and there are no sites registered on the SPRI which could contribute to a cumulative impact. DPMEE associated with the construction phase will also be localised to the works footprint and of a short duration. Moreover, considering the nature, size, and scale 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.

Proposed air quality mitigation measures:

- Careful consideration will be given to the siting and orientation of NRMM so that it is located, as far as is possible, away from receptors (if possible, > 20 m from surrounding properties). Activities which have the potential to produce dust, particulate matter, and exhaust emissions (DPMEE) (e.g., cutting and grinding of materials) will, if possible, also be undertaken away from any surrounding properties.
- The works area will be swept after dust-generating activities, and waste will be contained and removed from site as soon as is practicable.
- Vehicles that remove cold-milled material from site must 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).
- Where practicable, if powered generators are required, the use of mains electricity or battery powered ancillary plant will be considered in place of diesel or petrol alternatives.

- 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.
- Materials that have a potential to produce dust will be removed from site as soon as possible.
- Regular monitoring (e.g., by engineer or Clerk of Works) will take place when DPMEE generating activities are occurring. In the unlikely event that unacceptable DPMEE 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.

## **Cultural heritage**

Construction of the A6091 road corridor is likely to have removed any archaeological remains that may have been present within the trunk road boundary scheme extents. The potential for the presence of unknown archaeological remains in the study area has therefore been assessed to be low. Moreover, people, ancillary plant, vehicles, NRMM and materials are restricted to areas of made/engineered ground within the boundary of the A6091. As such, there is negligible risk of disturbing or damaging previously undiscovered or unrecorded items of cultural interest e.g., pertaining to the 'Battle of Darnick' IB.

There is no connectivity between the scheme and the listed buildings. Moreover, the works do not include any alterations that would affect the historic and architectural character of these features. In addition, the works do not lie within the 'Darnick' Conservation Area. As such, application for consent or any other permission is not required.

Given the nature of the works, and with implementation of mitigation detailed below, the proposed works impacts on cultural heritage during the construction period are assessed to be negligible in magnitude.

Upon completion of the works, no residual impacts on cultural heritage are anticipated.

Proposed cultural heritage mitigation measures:

- Toolbox Talk TTN-046 Archaeology will be briefed prior to works commencing.
- All site personnel will be briefed on the importance of archaeological finds and will be instructed to inform the site supervisor where potential finds are made. If there are any unexpected archaeological finds, all works will temporarily stop, the area will be cordoned off and BEAR Scotland's Environmental Team will be contacted for advice.

- People, ancillary plant, vehicles, NRMM and materials will be restricted to areas
  of made/engineered ground (as much as is reasonably practicable). Where
  access outwith made/engineered ground is required for the safe and effective
  completion of the scheme, the area will be reduced as much as is reasonably
  practicable, and ideally will be accessed on foot.
- If a change to the construction programme onsite is required that necessitates additional earthworks or vegetation clearance, BEAR Scotland's Environmental Team will be contacted.

## 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.

The eastern scheme extents are partially within the 'Eildon and Leaderfoot' NSA. However, the works are not listed as an activity subject to planning procedures within an NSA. In addition, people, ancillary plant, vehicles, NRMM and materials are restricted to areas of made/engineered ground within the boundary of the A6091, and construction works are programmed to be undertaken over 20-days. Moreover, works will only be within the boundary of 'Eildon and Leaderfoot' NSA for approx. 5 days and will not have a permanent impact on the visual or landscape characteristics of the NSA. 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 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 a refurbished footpath and small localised retaining wall and filter drain being the only discernible change.

Proposed 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, and does not share connectivity with, a 'sensitive area' designated for biodiversity features e.g., SAC, SPA, Ramsar, SSSI, etc.

A PEA (undertaken on the 31<sup>st</sup> January 2023) did not note any signs of protected mammal species (e.g. permanent habitat, feeding signs, resting places, droppings, etc.).

A temporary short-term increase in noise levels may cause disturbance to 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 delivery of materials and the presence of personnel to facilitate the improvements to the footpath. 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 A6091, and the scheme will be undertaken over 20-days utilising a daytime working pattern (negating the requirement for artificial lighting). The potential for significant species disturbance within the area of likely construction disturbance is therefore somewhat diminished.

The trees which are planned to be felled are not protected by a Tree Preservation Order (TPO) and have no other statutory or non-statutory protection.

The PRA (undertaken on the 31<sup>st</sup> January 2023) found no bats or evidence of bats (e.g., droppings, scratching, staining) roosting in the trees to be felled. The trees were also noted to have negligible summer and winter bat roost potential.

No birds were observed nesting in the trees at the time of surveying.

The invasive native perennial record pertains to the presence of rosebay willowherb within the trunk road boundary scheme extents. However, the PEA (undertaken on the 31<sup>st</sup> January 2023) did not note any invasive or injurious plant species within the area of likely construction disturbance.

Considering the nature, duration, size, and scale of the scheme, and with implementation of mitigation detailed below, the proposed work 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.

Proposed biodiversity mitigation measures:

• Any unsupervised excavations/trenches > 0.5 m deep will be covered or have ramps installed when left unsupervised at the end of a working day.

- A pre-works nesting bird checks will be carried out within 48 hours prior to vegetation clearance.
- 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.
- 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 BEARs Environmental Team. Should a protected species be encountered or move within 50 m of the active works (including compounds), works will be temporarily halted until the animal(s) move at least 50 m 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.
- All equipment stored onsite will be checked at the start of each workday to
  ensure any mammal species are not present. Any storage containers/plant within
  the compound 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, to avoid
  mammals falling in and becoming trapped.
- 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: (i) unforeseen site clearance is required, (ii) unplanned works must be undertaken outwith the carriageway boundary, (iii) there is any deviation from the agreed plan, programme and/or method of working, (iv) nesting birds are found onsite.
- BEAR Scotland's Control Room will be contacted if there is a pollution incident.

#### **Geology and soils**

Road schemes have the potential to impact upon the geology and soils through direct and indirect impacts on sensitive sites, loss or sterilisation of mineral deposits or soil resources, disturbance of contaminated land, or surcharging of ground which may accelerate erosion and subsidence.

However, works are minor in nature and are restricted to existing footpath improvements, with all works restricted to made/engineered ground within the

boundary of the A6091The work corridor is also not located within a GCRS, geological SSSI or LGS.

Considering the nature of the scheme, and with implementation of the mitigation detailed below, the potential for impact on geology and soils within the area of likely construction disturbance is somewhat diminished. The proposed works impacts on geology and soils throughout the construction period are therefore assessed to be negligible in magnitude.

Upon completion of the works, no residual impacts are anticipated in relation to geology and soils.

Proposed geology and soils mitigation measures:

- Topsoil and subsoil reused onsite will be spread evenly in a single layer < 200 mm in height to ensure the soil profile is maintained across the works location.
- Multiple handling of soil derived from excavations will be minimised.
- Topsoil used onsite will not be traversed by heavy machinery.
- The extent and duration of exposed soil will be kept to the minimum required for the works.
- Toolbox talk TTN-016 'Working with Soil' will be briefed to all personnel on-site prior to works commencing.
- If any contaminated land requiring remediation were encountered, it will be contained and/or removed in a safe and controlled manner to the standards required by SEPA.

#### 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 footpath 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.

The verge material to be excavated was tested at various locations across the scheme extents and no contamination was found and will therefore backfilled onsite, negating the requirement for disposal.

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.

Proposed material and waste mitigation measures:

- 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. Material transfer notes and/or waste exemption certificates (if required) will also be completed and retained.
- The Contractor is responsible for the reuse / disposal of non-hazardous footpath 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/2005418).
- Designated areas will be identified within which all materials and personnel, including construction compounds, 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 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 footpath widening. Noise will also be generated by using breakers (jackhammers), chipping hammers, use of rollers, excavators etc. As a result, there is potential for noise and vibration effects.

However, the works are not located within a CNMA or CQA, and works will be completed over 20 days utilising a daytime working pattern. Works with the potential to induce worst-case scenario noise and vibration (using breakers (jackhammers), chipping hammers, use of rollers, excavators etc.) will also be intermittent, temporary, and short-lived. The potential for disturbance will therefore be somewhat diminished. In addition, the proximity of road space suggests that residents will have a degree of tolerance to noise and disturbance. The hospital lies approx. 150 m southeast of the scheme and is screened from the scheme by tree shelterbelt (10 m wide) and the intervening ambulance station. The potential for disturbance will therefore be somewhat diminished.

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.

Proposed noise mitigation measures:

- 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 (if possible, >
  20 m 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.
- 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 onsite, (b) reducing the operating hours, (c) repositioning equipment, (d) 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 characteristic 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, vehicle travellers, and NMUs. However, the scheme does not require permanent (or temporary) land-take, accommodation works, site clearance or locally gained resources, and there is no requirement for a Compulsory Purchase Order (CPO).

NMUs utilising the local footpath where works are scheduled to take place will be accommodated within TM arrangements. In addition, the proximity of road space suggests that pedestrians and NMUs will have a degree of tolerance to noise and disturbance.

Considering the nature, duration, size and scale 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, the scheme is anticipated to have a moderate positive impact in relation to population and human health, by improving the safety of pedestrians and other NMUs, and encouraging active travel.

Proposed 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/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 urban development to the scheme extents, Toolbox Talk TTN-042 Being a Good Neighbour will be briefed prior to works commencing
- Pedestrians and NMUs will be accommodated within TM arrangements (if required). If pedestrians and NMUs cannot be accommodated within TM, alternative provision will be provided.
- Journey planning information will be available for drivers online at the trafficscotland.org website. Journey planning information will also be available for drivers online through BEARs social media platforms.
- 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 construction 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 on surrounding waterbodies.

However, there are no classified or unclassified surface waterbodies spanned by, culverted beneath, or which share direct connectivity with the scheme extents. All land outwith the A6091 road 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 a waterbody. The potential for a direct pollution incident within a waterbody is also unlikely e.g., experience gained from BEAR maintenance schemes elsewhere on the network has shown that where standard best working practice is adopted (e.g., adherence to SEPA GPPs or PPGs, utilisation of drain covers or similar, etc.), water quality is protected. The overall level of risk is therefore judged to be similar, or lower than that arising from road traffic accidents and spillages from current traffic travelling on the A6091. Moreover, given the nature, duration, size and scale of the scheme, the risk of a serious accidental spillage occurring is low and the works will be completed over 20-days, therefore the risk associated with a pollution incident is intermittent, temporary, and short-lived.

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

Proposed road drainage and water environment mitigation measures:

- 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 10 m 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 must to 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 10 m from drainage entry points, 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 >10 m 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 must 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 (particularly near road drainage entry points) 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 must 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 footway improvement works will also extend the maintenance intervals required for future works. In doing so, the service life of the footpath 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 A6091 within the scheme extents upon completion of the works.

Works are restricted to areas of made/engineered ground within the boundary of the A6091, with access to the scheme gained via the A6091. TM is currently anticipated to be in the form of daytime temporary traffic lights. Traffic lights will be removed each night and implemented again in the morning. Pedestrians and other NMUs utilising the footpath where works are scheduled will be accommodated within TM arrangements. As such, the proposed works impacts on 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 of cumulative effects

The proposed works are not anticipated to result in significant environmental effects. Due to the nature of the proposed works, no cumulative effects are anticipated with any other developments in the vicinity. Any future BEAR Scotland schemes will be programmed to take into account already-programmed works and as such, any cumulative effect will be limited.

In addition, a search using <u>Scottish Borders Council 'Simple Search'</u> identified that there is one planning application within 300 m of the scheme, which pertains to the installation of two wash bays and a 3 m high acoustic fence. Due to the minor nature of this planning application and the scale of the footpath improvement works, it is unlikely that the proposed works will have a significant cumulative effect with any other future works in the area.

# Assessments of the environmental effects

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

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

This is a relevant project in terms of section 55A(16) of the Roads (Scotland) Act 1984 as it is a project for the improvement of a road and the completed works (together with any area occupied by apparatus, equipment, machinery, materials, plant, spoil heaps, or other such facilities or stores required during the period of construction) are situated partially within the 'Eildon and Leaderfoot' NSA, which is a sensitive area within the meaning of regulation 2(1) of the Environmental Impact Assessment (Scotland) Regulations 1999.

The project has been subject to screening using the Annex III criteria to determine whether a formal Environmental Impact Assessment is required under the Roads (Scotland) Act 1984 (as amended by The Roads (Scotland) Act 1984 (Environmental

Impact Assessment) Regulations 2017). Screening using Annex III criteria, reference to consultations undertaken and review of available information has not identified the need for a statutory EIA.

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

Characteristics of the scheme:

- The total working area is less than 1 ha.
- Works are restricted to improvements to an existing footpath (including widening the footpath to between 3 m and 4 m, improving crossing points, and installation of small retaining wall with filter drain), with all works restricted to made/engineered ground within the boundary of the A6091.
- Works are programmed to only take 20-days to complete, utilising a daytime working pattern.
- Works are not expected to result in significant disturbance to protected species.
- No in-combination effects have been identified.
- The risk of major accidents or disasters is considered to be low.
- By widening the footpath and improving crossing points, NMUs will be safer when travelling along this stretch of the A6091.

Location of the scheme:

- Although the eastern scheme extents partially lie with the 'Eildon and Leaderfoot' NSA, a 'sensitive area', as defined in the EIA (Scotland) Regulations 1999 (as amended), this RoD has confirmed that the works will not result in the permanent degradation of any of its 'special qualities'.
- Works lie outwith the 'Darnick' Conservation Area.
- The scheme is not situated within, and does not share connectivity with, a 'sensitive area' designated for biodiversity features e.g., SAC, SPA, Ramsar, SSSI, etc.
- A PEA found no evidence of any protected mammal species, or invasive or injurious plant species within the area of likely construction disturbance.
- There are no classified or unclassified surface waterbodies spanned by, culverted beneath or which share direct connectivity with the scheme extents.
- 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 or soils.

• The scheme is not located within a densely populated area.

Characteristics of potential impacts of the scheme:

- Any potential impacts of the works are expected to be temporary, short-term, not significant, and limited to the construction phase.
- With good practice pollution prevention measures implemented onsite, there is a negligible risk of a pollution event e.g., compliance with the SEMP.
- As the works are restricted to existing footpath improvements, 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.
- No impacts on the environment are expected during the operational phase as a result of the works.

# 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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