

Environmental Impact Assessment Record of Determination

A68 Millerhill Jct to B6414 Overpass

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Project Details

Description

BEAR Scotland has been commissioned by Transport Scotland to carry out filter drain replacement on both the northbound and southbound sides of the A68 across a 2.68 km stretch of the trunk road, which requires 8,055 tonnes of Type 2 filter material to be replaced. Existing filter material will be cleaned/recycled off-site and returned for backfill where possible.

Construction activities include:

- traffic management (TM) to be setup and site marked out,
- mini excavator to excavate filter drain material (e.g. Type B granular material and detritus) and place in tipper truck,
- Type B granular material and detritus removed from site,
- Type B granular material sieved and separated from detritus and returned to site,
- filter drain 'topped-up' with new Type B granular material,
- tipper truck and mini excavator removed from site,
- TM removed and road reopened.

The works are currently programmed to be completed within the 2023/2024 financial year (April 2023 – March 2024 inclusive). Works are expected to be completed over thirty nights (19:30 – 06:00). TM is currently anticipated to be a combination of lane closures with temporary traffic lights, in addition to five nights of full road closures. There are no pedestrian or other non-motorised user (NMU) facilities with connectivity to the scheme extents.

Location

The scheme lies on the A68 approximately 2 km north of Dalkeith, with agricultural land bordering the trunk road (Figure 1).

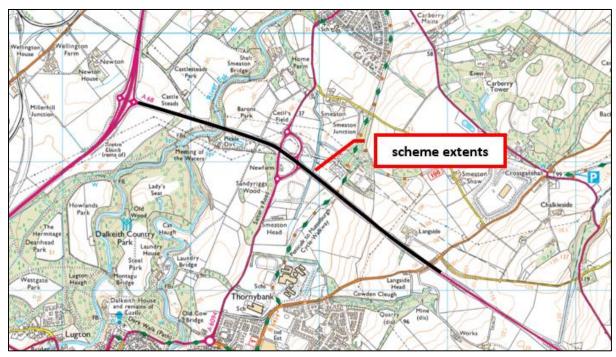


Figure 1: Extent of works. Source: Asset Management Performance System (AMPS). © Europa Technologies Ltd. Contains Ordnance Survey data © Crown copyright and database right 2018.

Description of local environment

Air quality

The scheme lies within the boundary of the Midlothian Council, which has no <u>Air Quality Management Areas</u> (AQMAs) within its administrative boundary, and East Lothian Council which has one AQMA. The nearest AQMA, 'High Street, Musselburgh', lies within the East Lothian administrative boundary approx. 3 km north of the scheme and has been declared for nitrogen dioxide (NO₂).

One site is registered on the Scottish Pollutant Release Inventory (SPRI) for air pollutant releases within 1 km of the scheme. Details of the site are as follows:

Smeaton Recycling Centre (waste and waste-water management) (0.5 km north).
 Baseline air quality within the study area is mainly influenced by vehicles travelling along the trunk road. Secondary sources are likely derived from vehicles travelling along the A720 and local road network, and day-to-day agricultural land management activities.

Cultural heritage

The <u>PastMap</u> and <u>Historic Environment Scotland</u> (HES) online mapping tools record five scheduled monuments within 300 m of the scheme. The nearest scheduled

monument, 'Newton, Pit alignment 600 m SE of' (SM5705), lies outwith the trunk road boundary approx. 10 m north and 10 m south of the scheme extents.

'Dalkeith House (Palace)' Garden and Designed Landscape partially covers the scheme extents. 'Dalkeith House & Park' Conservation Area also lies approx. 200 m south of the scheme.

Forty-seven undesignated cultural heritage assets (UCHAs) also lie within 300 m of the scheme. Twelve of these are depicted as being within the scheme extents; however, surface evidence of these features will have been removed due to construction of the A68. The remaining UCHAs lie outwith the trunk road boundary, with the nearest approx. 5 m southwest of the scheme.

Landscape and visual effects

The scheme is not situated within a <u>National Park</u> (NP) or <u>National Scenic Area</u> (NSA).

The Landscape Character Type (LCT) in the study area is 'Lowland River Valleys – Lothians' (no. 270) and 'Lowland Hills and Ridges – Lothians' (no. 272) (Scottish Landscape Character Types). The 'Lowland River Valleys – Lothians' LCT is characterised by meandering rivers and streams, with deeply incised river valleys and areas of dense woodland and open pastures. The 'Lowland Hills and Ridges – Lothians' LCT is characterised by hills, hill forts and arable landcover, with small farm woodlands and small villages.

Land use within 300 m of the scheme is categorised into the following:

- rectilinear fields & farms,
- motorway and major roads,
- managed woodlands,
- country park,
- cultivated former parkland,
- quarry,
- power generation.

The <u>national scale land capability for agriculture</u> classifies land surrounding the scheme as being 'Class 2' – land capable of producing a wide range of crops, and '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.

Approximately 2.5 ha of riparian woodland, registered on the <u>Ancient Woodland Inventory Scotland</u>, is spanned by the trunk road within the scheme extents at the location of the River South Esk. There is no native woodland (registered on the <u>Native Woodland Survey of Scotland)</u> in proximity to the scheme extents.

Biodiversity

The <u>NatureScot Sitelink</u> online mapping tools identify 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 trunk road within the scheme extents spans the 'Esk Valley' Local Nature Conservation Site (LNCS). There are no Local Nature Reserves (LNR) designated for biodiversity features with connectivity to the scheme extents.

The <u>National Biodiversity Network</u> (NBN) records two mammal species of conservation importance within 2 km of the scheme (in the last 10 years) within 10 km grid square NT36.

A search of the NBN online mapping tool records Giant hogweed (*Heracleum mantegazzianum*), Japanese knotweed (*Reynoutria japonica*) and Himalayan balsam (*Impatiens glandulifera*), all invasive non-native species (INNS), within 2 km of the scheme (in the last 10 years). Broad-leaved dock (*Rumex obtusifolius*) (an injurious weed (as listed under the Weeds Act 1959)) and Rosebay willowherb (*Chamerion angustifolium*) (an invasive native perennial (as listed in the Trunk Road Inventory Manual)) were also recorded within 2 km of the scheme extents. The nearest record pertains to Rosebay willowherb, which was recorded approximately 10 m north of the scheme (2015). A search of the Asset Management Performance System (AMPS) records Giant hogweed, Common ragwort (*Jacobaea vulgaris*) and Spear thistle (*Cirsium vulgare*) (both injurious weeds), and Rosebay willowherb within the trunk road boundary scheme extents.

Geology and soils

The A68 within the scheme extents is not located within a <u>Geological Conservation</u> <u>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 and Gleys.

The <u>British Geological Survey</u> online mapping tool records that the superficial geology underlying the scheme extents is comprised of:

- Glaciofluvial Sheet Deposits (sand and gravel),
- River Terrace Deposits (sand and gravel),
- Till, Devensian (diamicton).

The bedrock geology underlying the scheme extents is comprised of:

- Scottish Middle Coal Measures Formation (sedimentary rock cycles, coal measure type),
- Scottish Lower Coal Measures Formation (sedimentary rock cycles, coal measure type),
- Passage Formation (sedimentary rock cycles, Clackmannan group type),
- Castlecary Limestone (limestone),
- Upper Limestone Formation (sedimentary rock cycles, Clackmannan group type),
- Limestone Coal Formation (sedimentary rock cycles, Clackmannan group type).

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 the replacement of filter drain material, hence the material used for the scheme consists of filter drain material (typically Type B granular material).

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

The majority of the 8,055 tonnes of filter drain arisings (graded stone and filter drain detritus) will be cleaned and reused with an approximate recovery rate of 50% - 70%. Therefore, approx. 4,027 – 5,638 tonnes of filter drain material will be reused onsite, with the actual waste being approximately 2,416 – 4,027 tonnes. Waste classification testing has determined that the List of Waste code for the filter drain materials is considered to be '17 05 04 soil and stones other than those mentioned in 17 05 03', i.e., non-hazardous waste. Materials classified as non-hazardous may be disposed of at an inert waste facility subject to meeting inert Waste Acceptance Criteria (WAC) thresholds. Full WAC testing was carried out on twenty-eight samples taken from the filter drain sections (TP01 – TP28). Exceedances of the inert WAC thresholds were recorded in one sample (TP06, within Section 1 on the northbound side). The exceedance is considered to be fairly marginal, and it is noted that all

other samples within this section (and from the wider site) did not record any exceedances of inert WAC thresholds. Therefore, it is considered that the body of waste as a whole can be considered to be inert.

Noise and vibration

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

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

Baseline noise levels within the study area are mainly influenced by vehicles travelling along the trunk road. Secondary sources are likely derived from vehicles travelling along the A720 and local road network, and day-to-day agricultural land management activities.

Population and human health

Seven properties (including four farmsteads) lie within 300 m of the scheme. The nearest property (farmstead) lies 80 m south of the scheme and is screened by roadside embankments. The remaining properties are also screened from the scheme by roadside embankment. There are no sensitive receptors/land uses within 300 m of the scheme.

The A68, within the scheme extents, is a single-lane carriageway with the national speed limit applying throughout. The Annual Average Daily Traffic (AADT) flow is 13,359 (ID: 90135, 2021 data) (Road traffic statistics) and is comprised of:

- 29 two wheeled motor vehicles,
- 9,407 cars and taxis.
- 17 bus and coaches.
- 2,484 Light Goods Vehicles (LGVs), and
- 1,422 Heavy Goods Vehicles (HGVs).

There are no pedal cycles recorded using the route.

There are no congestion issues noted on the A68 within the scheme extents.

Road drainage and the water environment

The <u>Scottish Environment Protection Agency</u> (SEPA) River Basin Management Plan online mapping tool records the River South Esk (Gore Water to N Esk confluences), a classified surface waterbody (ID: 3801) in the River Esk (Lothian) catchment of the Scotland river basin district, is spanned by the trunk road within the scheme extents. The main stem is approximately 13 km in length and has been assigned a Water Framework Directive 2000/60/EC (WFD) overall classification of 'Poor', an ecological classification of 'Poor', and a classification of 'Good' for fish migration.

One small, minor unclassified surface waterbody, considered to be a minor tributary and herein referred to as WB1, is also culverted beneath the scheme extents. The culvert of WB1 extends 10 m beyond the northbound (NB) lane and 15 m beyond the southbound (SB) lane. The culvert is separated from the scheme extents on both sides by a grassed verge (approx. 5 m - 10 m wide).

The works lie on the 'Dalkeith' and 'Esk Sand and Gravel' <u>groundwaters</u>, (which are also <u>Drinking Water Protected Areas</u>), which have been classified as 'Poor' and 'Good' respectively.

The works do not lie within a Nitrate Vulnerable Zone.

The SEPA indicative surface water online <u>flood mapping</u> tool records an approx. 140 m stretch of the A68, within the scheme extents, is at a high risk of surface water flooding (i.e., each year this area has a 10% chance of flooding).

Road drainage is provided by roadside gullies and filter drains.

Climate

The Climate Change (Scotland) Act 2009 sets out the target and vision set by the Scottish Government for tackling and responding to climate change (<u>The Climate Change (Scotland) Act 2009</u>). The Act includes a target of reducing CO₂ emissions by 80% before 2050 (from the baseline year 1990). The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 amended the Climate Change (Scotland) Act 2009 to bring the target of reaching net-zero emissions in Scotland forward to 2045 (<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 (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 excavation of the filter drain material, 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, considering the nature of the scheme, and with implementation of mitigation detailed below, the proposed works impacts on local air quality levels during the construction period are assessed to be temporary negligible adverse in magnitude.

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

Proposed air quality mitigation measures:

- 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.
- 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 A68 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, the works do not entail any significant earthworks (minor excavation of existing filter drain to a depth of 0.8 m) or vegetation clearance, and people, ancillary plant, vehicles, NRMM and materials are restricted to areas of made/engineered ground within the boundary of the A68. As such, there is negligible risk of disturbing or damaging previously undiscovered or unrecorded items of cultural interest.

There is no connectivity between the scheme and the scheduled monuments or conservation area, and works are like-for-like filter drain replacement which will not impact upon the garden and designed landscape.

Given the nature of the scheme, 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:

- 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. However, people, ancillary plant, vehicles, NRMM and materials are restricted to areas of made/engineered ground within the A68 carriageway boundary, and construction works are programmed to be undertaken at night on a rolling programme. In addition, the A68 within the scheme extents is screened from the wider environment by roadside embankments. As such, the visual impact of the works will be somewhat reduced.

Considering the nature 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 renewed 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.

The trunk road within the scheme extents spans the 'Esk Valley' LNCS; however, all works are restricted to the trunk road boundary, and due to the nature, duration, size and scale of the scheme there will be no residual impacts on the LCNS.

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 filter drain refurbishment. 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 A68, and the scheme will be undertaken over 30-nights on a rolling programme. The potential for significant species disturbance within the area of likely construction disturbance is therefore somewhat diminished.

The INNS, invasive native perennial and injurious weed records pertain to Giant hogweed, rosebay willowherb, common ragwort and spear thistle, all of which are recorded within the trunk road boundary scheme extents. However, a site visit (undertaken on the 24th March 2023) did not note any invasive or injurious plant species within the area of likely construction disturbance.

Considering the nature 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:

- Toolbox Talk on protected species will be briefed to all site personnel prior to works commencing.
- 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.
- 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.
- 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, surface waterbodies etc.) to ensure minimal impact on nocturnal species.
- 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:
 - unforeseen site clearance is required,
 - unplanned works must be undertaken outwith 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.

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 like-for-like filter drain refurbishment, with all works restricted to made/engineered ground within the A68 boundary. The 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 mitigation measures:

- 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. Any removal of potentially hazardous material is likely to constitute a net positive impact as this will remove the risk of any future contamination.
- Any areas of exposed soil/bare earth/damaged verge as a result of the filter drain works will be reinstated and re-seeded once the works are complete.

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, a SWMP template, which is available within BEAR SharePoint, will be partially completed be the Design Engineer (design section) and then the Design Engineer will supply 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 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 filter drain stone will be filtered and reused where possible.
- The body of waste as a whole can be considered to be inert for disposal purposes. The Waste Classification Report will be forwarded to the preferred waste receiver for review to confirm, prior to material being removed from the site.
- The disposal / re-use of filter stone has been registered in accordance with a Paragraph 13 exemption, as described in Schedule 3 of the Waste Management Licensing Regulations 2011 (exemption number: WML/XS/2005589), the rules of which will be complied with.

- The Contractor will comply with all 'Duty of Care' requirements, ensuring that any surplus materials or waste are stored, transported, treated, used, and disposed of safely without endangering human health or harming the environment. Material transfer notes and/or waste exemption certificates (if required) will also be completed and retained.
- Designated areas will be identified within which all materials and personnel, including construction compounds (within the confines of the TM), will be contained to limit environmental disturbance during construction works. This will include a designated area (if required) for segregation and reuse of waste materials.
- The selection of areas for materials stockpiling will avoid sensitive locations such as road drainage and surface waterbodies. Stockpiled materials with leachate potential, for example, will be stored away from road drainage to prevent crosscontamination with other materials, wastes, or groundwater.
- Materials will be stored with the appropriate security to prevent loss, theft, or vandalism.
- All temporary road signs and traffic cones will be removed from site on completion of works.
- Wastewater from mobile welfare facilities (if required) will be subject to effluent treatment followed by tanker removal.
- If hazardous substances are used onsite, each substance will be subject to
 assessment under the Control of Substances Hazardous to Health (COSHH)
 Regulations 2002. Hazardous substances will also be clearly labelled, and
 disposed of, in line with COSHH safety data sheets and the Special Waste
 Regulations 1996. Special waste will also not be mixed with general waste and/or
 other recyclables.

Noise and vibration

Activities undertaken on site could potentially have some localised and short-term noise impacts in proximity to the works. The works will, for example, require a range of ancillary plant, vehicles and NRMM for filter drain refurbishment. Noise will also be generated by the excavation of filter material, unloading materials, vehicle movement etc. As a result, there is potential for noise and vibration effects.

However, works will be completed on a rolling programme, with the aim being to complete the noisiest works by 23:00. In addition, 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:

- Where possible, the noisiest work operations (e.g., excavation of filter material, unloading materials etc.) will be completed before 23:00.
- If unacceptable noise is emanating from the site the operation will, where possible, be modified and re-checked to verify that the corrective action has been effective. Actions to be considered include (a) 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 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 characteristic will (where practical) be shut down in intervening periods between site operations.
- 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, AADT flow at the scheme location is low, no congestion issues are noted, and TM will only be in place at night (when traffic flows will be at a minimum) on a rolling programme. Pedestrians and NMUs will also not be impacted. In addition, the proximity of road space suggests that residents will have a degree of tolerance to noise and disturbance.

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

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

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.
- Advanced signage will be strategically placed on the road to notify stakeholders
 of any road closures and diversions. Signage will be installed at least 7 days in
 advance of the road closures.
- 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 filter drain refurbishment 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, no 'in-water' works are required, therefore there will be no change in the hydrological regime or water quality within the River South Esk or WB1. In addition, works will not be undertaken directly above the River South Esk, as filter drains are only located north and south of the bridge. All land outwith the trunk road boundary is also considered out-of-bounds to all construction staff during the works 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 from, or discharges to a waterbody. The potential for a direct pollution incident within a waterbody is also unlikely e.g., experience gained from BEAR 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.

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

Upon completion of the works, it is expected that improvements will be made to the road drainage and water environment due to the alleviation of flooding.

Proposed road drainage and water environment mitigation measures:

- No work has been identified that would require entering any surface waterbodies.
 If such a need were identified onsite, 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 is not permitted.
- The Contractor will implement measures to minimise the risk of sediment or accidental spillages entering the road drainage system e.g., prior to works commencing any roadside gullies within 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, the River Esk and WB1, in order to comply with GPP 5 'works and maintenance in or near water'. Refuelling will only be undertaken at designated refuelling areas (e.g., on hardstanding, with spill kits available, and >10 m from drainage entry points the River Esk and WB1, 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 and surface waterbodies) will be conducted (e.g., site walkover by engineer or Site Supervisor), especially during periods of heavy rain.

 All vehicles and NRMM onsite will have been regularly maintained, paying attention to the integrity of oil tanks, coolant systems, gaskets etc. A checklist 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 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

An approx. 140 m stretch of the A68, within the scheme extents, is at a high risk of surface water flooding (i.e., each year this area has a 10% chance of flooding). However, refurbishment of the existing filter drain will improve drainage, alleviating flooding on the A68 upon completion of the works.

Works are restricted to areas of made/engineered ground within the boundary of the A68, with access to the scheme gained via the A68. TM is currently anticipated to be a combination of lane closures with temporary traffic lights, in addition to five nights of full road closures. There are no pedestrian or other NMU facilities with connectivity to the scheme extents. 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>Midlothian Council 'Simple Search'</u> and <u>East Lothian</u> <u>Council 'Simple Search'</u> identified that there are no planning applications within 300 m of the scheme. Therefore, 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) exceed 1 ha.

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 filter drain refurbishment, with all works restricted to made/engineered ground on the A68 carriageway verge.
- Works are programmed to take 30-days to complete on a rolling programme, with the aim being to complete the noisiest works by 23:00.
- No works are required within the River South Esk or WB1, which are spanned by/culverted beneath the A68 within the scheme extents, therefore there will be no change in the hydrological regime or water quality within the River South Esk or WB1.
- 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.
- Refurbishment of the existing filter drain will alleviate flooding on the A68 upon completion of the works, which will result in safer conditions for road users.

Location of the scheme:

- The scheme is not located wholly or in part in a 'sensitive area' as defined in the EIA (Scotland) Regulations 1999 (as amended).
- The scheme will not have any impact on the conservation area, garden and designed landscape or scheduled monuments noted within 300 m of the scheme.
- A site visit (undertaken on the 24th March 2023) did not note any invasive or injurious plant species within the area of likely construction disturbance.
- 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.

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- 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 the like-for-like filter drain refurbishment, 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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