

# Record of Determination A84 Pass of Leny

# **C**ontents

Project Details	4
Description	4
Location	4
Description of Local Environment	5
Population and Human Health	5
Biodiversity	6
Ecological Statutory Designated Sites	6
Diadromous Fish	6
Otter	6
Ornithology	6
Reptilians & Amphibians	7
Land	7
Soil	7
Water	7
Air	7
Climate Change	7
Material Assets	8
Waste	8
Cultural Heritage	
Vulnerability of the Project to Risks	8
Description of Main Environmental Impacts and Proposed Mitigation	8
Population and Human Health	9
Biodiversity	9
Ecological Statutory Designated Sites - LLTNP	
Ecological Statutory Designated Sites -River Spey SAC	
Biodiversity – Loss of Containment	10
Ornithology	11
Reptilians & Amphibians	11
Land	12
Soil	13
Water	13
Air	13
Climate Change	14
Material Assets	14
Fuel, Oils and Chemicals	14

# Environmental Impact Assessment Record of Determination

# Transport Scotland

Annex A	19
Statement of case in support of a Determination that a statutory EIA is not required	
Assessments of the Environmental Effects	17
Cumulative Effects	17
Vulnerability of the Project to Risks	17
Cultural Heritage	16
Waste	16

# **Project Details**

# **Description**

A review of road safety along the A84 Trunk Road identified multiple hazards at the Pass of Leny, with the existing barriers not conforming with current standards. Over the last 20 years, a high rate of accidents occurred at the Pass of Leny section, resulting in 3 fatalities, 7 serious injuries and 20 light injuries.

Subsequently, BEAR Scotland are proposing to upgrade the vehicle restraint system (VRS) infrastructure at Pass of Leny along the A84 to improve road safety. The proposed VRS upgrading works will involve:

- Approximately 280m of wall remains which are approximately 300mm high will be deconstructed to verge level and will form part of rear support for the proposed concrete log;
- Removal of stonewall sections totalling approximately 60m;
- Removal of approximately 204m of existing P1 VRS; and
- Installation of approximately 561m of new VRS utilising a continuous concrete log.

Works are intended to commence in September 2021 and will take approximately 4 to 6 weeks to complete with construction hours being 0700 to 1900. To facilitate the works and ensure the safety of site operatives, a temporary traffic light system will be implemented up to a maximum of 300m.

#### Location

The proposed works are situated along a section of the A84 Trunk Road near the Pass of Leny and runs from an easterly (project start: E:259301, N:708884) to northernly direction (project end: E:258763, N:709222). Figure 1 details the location of the scheme extent along the A84 Trunk Road.

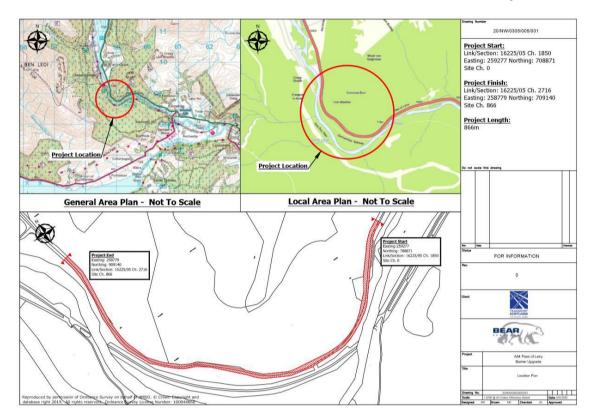


Figure 1: Location of the A84 Pass of Leny VRS upgrade works

# **Description of Local Environment**

The following baseline descriptions are listed to follow the appropriate Design Manual for Roads and Bridges (DMRB) Chapters for Environmental Assessment and do not reflect a ranking of sensitivity. A literature review with regards to baseline information was undertaken using relevant reports, research articles and consultation with statutory and non-statutory bodies.

# **Population and Human Health**

The Pass of Leny VRS scheme is situated in a rural setting with extremely limited urbanisation with no residential/commercial properties located within a 980m radius.

The A84 Trunk Road is a single carriageway at this location and carries commercial and public traffic, serving as a very popular tourist route through the Loch Lomond and The Trossachs National Park (LLTNP) from large cities like Stirling.

The section of the A84 Trunk Road on which works are proposed does not form part of any designated cycling or walking routes, however, Section 7 of the National Cycle Network runs south of the proposed works across River Uisage (sustrans, 2021). Pedestrians are also likely to occasionally use the road given the proximity to the tourist attraction Falls of Leny. Equestrians are unlikely to frequently use the road as it is relatively narrow, very busy and of high speed.

# **Biodiversity**

### **Ecological Statutory Designated Sites**

The proposed works are situated within the boundaries of the LLTNP which covers approximately 186,339 Ha.

At its closest point, the proposed works are <10m north-west from River Uisage. River Uisage is designated as part of the larger River Teith Special Area of Conservation (SAC).

Approximately 25m south-west of the works, across River Uisage, lies the Pass of Leny Flushes Special Site of Scientific Interest (SSSI) which is designated for upland oak woodland and springs (including flushes). As the proposed works are limited to the A84 Trunk Road, the site is located across River Uisage and considering its qualifying features, no ecological connectivity exists. Thus, the site is not further considered.

Across River Uisage also lies the Great Trossachs Forest National Nature Reserve which covers approximately 16,541 Ha. As with the SSSI, no ecological connectivity exists between the works and the site. Therefore, the site is not further considered.

#### **Diadromous Fish**

River Uisage is known to support habitat and migration routes for multiple diadromous species. Presence and migration of European eel (Anguilla angeuilla) and sea trout (Salmo trutta morpha trutta) is not known, however, it can be reasonably assumed the species occur within the waters given the occurrence of other diadromous species.

#### Otter

Suitable European otter (*Lutra lutra*) habitat exists along the wider River Uisage, however, no records of the species within 2 km over a 10-year period on the National Biodiversity Network (NBN) were identified. While suitable habitat exists, which at its closest is situated <10m from the works, the very steep road verge drop-offs make it impossible for the species to occur in immediate vicinity of the works. The very steep drop-offs also prevent otter surveys being undertaken safely. Given the suitable habitat availability but survey constraints, the species is considered a sensitive receptor and taken forward for assessment.

# **Ornithology**

Within 2 km of the works over a 10-year period 68 ornithological species were recorded. Under the Wildlife and Countryside Act 1981 all wild birds and their active nests are protected.

The habitat along the A84 Trunk Road section on which work are proposed provides sustainable breeding bird habitat in form of shrubs, young and mature trees between March and August (inclusive). Works are intended to commence in September and take approximately 4 to 6 weeks to complete, making it is unlikely that breeding birds are encountered. The works also require no vegetation removal that could support birds, for example trees or shrubs. Therefore, breeding birds are not further considered.

### Reptilians & Amphibians

During consultation with the LLTNP, the LLTNP advised that the stonewalls and its remains to be deconstructed provide suitable hibernation habitat for reptilian and amphibian species. However, review NBN identified no records of reptilian or amphibia species. As a precautionary measure, reptilian and amphibian species are considered a sensitivity.

#### Land

The proposed works are situated in a rural area with no residential/commercial properties located within a 980m radius. Land use in the area is dominated by agriculture and localised commercial woodland plantations to the north and south of the scheme. Tourism plays a significant economic role in the area, especially within summer months.

#### Soil

Bedrock within the scheme extents was classified as a psammite and pelite formation. Superficial soils are categorised as alluvium - clay, silt, sand and gravel.

#### Water

At its closest, the works are situated <10m north-west of River Uisage which flows adjacent to the A84 Trunk Road from an easterly to northernly direction. The river was categorised by the Scottish Environment Protection Agency (SEPA) (ID:4718) as having an overall good status and chemical pass in 2018.

The scheme footprint crosses no surface waters.

The scheme is located within the boundaries of the Trossachs groundwater body (ID:150680) which was assessed by SEPA as having an overall good status and chemical pass in 2018.

#### Air

The Air Quality in Scotland website that contains centralised air quality data for Scotland was reviewed to establish the baseline air quality parameters in the vicinity of the proposed works.

There are no air quality monitoring stations within close proximity of the scheme. Existing air quality is primarily influenced by the A84 Trunk Road and natural emissions. The scheme location is rural in nature; therefore, air quality is assumed to be good.

# **Climate Change**

As the scheme is situated in a rural setting with extremely limited urbanisation within a 1 km radius, anthropogenic greenhouse gas (GHG) emissions arise mostly from traffic using the A84 Trunk Road and local land use, primarily agriculture. The proposed works will result in direct and indirect generation of GHG emissions through material consumption and the use of machinery and equipment.

#### **Material Assets**

The proposed works will require a variety of materials, the main materials comprising of metals in form of VRS (524m of VRS) and concrete (approximately 176m³). A variety of miscellaneous materials like wood, metals and plastics will also be required.

Materials will be transported to site via the Trunk Road network via 'just in time' delivery to minimise the requirement of stockpiling onsite.

#### **Waste**

The proposed works will give rise to a variety of waste streams, including:

- Rock from wall remains removal (exact quantities at this stage are unknown);
- Metal from removal of 204m old VRS; and
- 230m³ trench materials from continuous concrete log installation.

Works will also give rise to a variety miscellaneous waste like wood and plastics, including waste from welfare facilities.

# **Cultural Heritage**

The Historic Environment Scotland (HES) Interactive Map PastMap was utilised to establish the cultural heritage baseline within the vicinity of the proposed development.

Within a 300m corridor along the proposed A84 works, several local/regional cultural heritage features are located. Identified features include Historic Environment records and features listed on the Canmore database. However, none of the cultural heritage features have connectivity or are situated within the scheme footprint. No Listed Buildings, Scheduled Monuments, Battlefield or World Heritage Sites were identified within a 300m corridor of the proposed works.

# **Vulnerability of the Project to Risks**

The following environmental factors were identified as potential risks to the project:

- Unidentified ecological constraints;
- Unidentified archaeological constraints;
- Disturbance of protected species; and
- Complaints from local residents.

# Description of Main Environmental Impacts and Proposed Mitigation

As a result of a desktop study and site visits, issues requiring consideration have been identified and potential effects have then been considered. Potential environmental effects have been split into construction and operational effects; conclusion whether an effect is likely to be significant is based on consideration of

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mitigation measures discussed in each topic section. However, consideration of potential operational effects will be limited to landscape and visual impacts as the proposed works will not result in fragmentation or alteration. But will alter the visual appearance at a very localised level through removal of wall remains and installation of a new VRS.

Disruption due to construction' and impacts on 'policies and plans' are covered within each environmental topic heading where applicable. Unless otherwise stated, the study area considered for the assessment of potential impacts extends 200m in each direction from the construction footprint.

# **Population and Human Health**

The proposed works will utilise a range of plant, machinery and equipment, including percussive tools causing noise. Elevated noise over prolonged periods can cause annoyance and in extreme circumstances pose a risk to human health. However, the small-scale of the works will only require limited number of machinery and equipment, likely resulting in very limited noise emissions over a period of 4 to 6 weeks within the hours of 0700 and 1900. Furthermore, all works will be undertaken in line with industry best practice and BS5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control and Construction and Open Sites to reduce the generation of construction noise. Impacts on residential/commercial properties will also not occur as none are located within 980m radius of the works. Therefore, it is assessed that noise impacts on human receptors are short-term, localised and negligible, constituting to a negligible non-significant effect.

No adverse significant impacts on road users through the works are also not anticipated as no road closure is required with traffic flow allowed to via temporary traffic light system.

Completion of the works will result in a minor localised positive impact on road users by the new VRS providing improved protection from vehicles leaving the Trunk Road and dropping of the steep road verge.

# **Biodiversity**

# **Ecological Statutory Designated Sites - LLTNP**

As the proposed works are situated within the boundaries of the LLTNP, extensive consultation with the Park Authority was undertaken between 2020 and 2021. During the consultation, the National Park Authority raised several concerns. BEAR Scotland acknowledged the consultees concerns and revised its proposals to eliminate matters that were of concern by the National Park. Actions taken to address the National Park comments will be implemented.

The nature of the works requires habitat alteration and removal through the deconstruction of approximately 280m of wall remains of an average height of 300mm and 60m of stonewall. However, resulting habitat alteration and removal is very localised to the A84 Trunk Road verge and of minor size. Design of the new VRS will also not require tree felling or pruning through implementation of strategic breaks in the shallow concrete log foundations, enabling a reduced setback of the barrier. The method will also prevent damaging the trees root systems. Considering

this and the actions taken to address the LLTNP comments, no significant impacts on the LLTNP are expected.

## **Ecological Statutory Designated Sites - River Spey SAC**

Proposed works at its closest are located <10m north-west from River Uisage which is designated as part of the River Spey SAC. While works will not result in a direct impact on the Spey SAC as no works are undertaken within its boundaries, a potential indirect risk through the loss of containment exists. Loss of containment, such as fuels, oils and concrete can have significant adverse environmental impacts where it enters the water environment, the severity being depended on substance and quantities lost. However, construction of the concrete log requires a trench to be constructed first and then filled with concrete, the trench itself acting as containment. Majority of the works will also be undertaken further than 10m from the SAC, with vegetation acting as a buffer if an accidental loss of containment were to occur. In addition, all hazardous material will be stored and handled in line with standard industry practice and pollution prevention guidance as detailed in the SEMP. reducing the likelihood of a loss of containment occurring. Appropriate spill kits will be available on site with all staff appropriately trained in their use. Therefore, a loss of containment with significant environmental effects on River Uisage and the River Spey SAC is considered very unlikely.

### **Biodiversity - Loss of Containment**

Accidental loss of hazardous substances like hydrocarbons (e.g. fuel and oils) has the potential to result in direct and indirect negative effects on fauna and flora. Impacts associated to pollution can be acute; high concentrations or substances may result in increased mortality rates over short periods. Also, pollution events may cause chronic impacts, with pollutants causing phenotypic plasticity or accumulation in organic tissue (particularly liver and kidney cells) and enabling transition of pollutants thought the ecosystem via prey and predator relationships. Effects including behavioural changes, reduced fertility rates and lethality have also been reported after both short and long-term pollution exposure in fish.

The proposed works will require several materials with pollution potential, notably of which include:

- Concrete;
- · Cement wash; and
- Fuel, oils and chemicals including hydraulic fluid associated with construction plant and machinery

However, the accidental release of pollutants is an extreme unlikely event as pollution prevention measures will be strictly enforced on site and the relevant Pollution Prevention (PPGs) and Guidance for Pollution Prevention (GGP) will be strictly adhered to. Minimizing the risk of a pollution event capable of affecting flora and fauna. These are discussed in detail in the Waste, Materials and Use of Natural Resources Section. Therefore, the effect of loss of containment on fauna or flora is not anticipated to give rise to a significant effect.

### **Ornithology**

There is potential to impact wild birds using the area during the works as a result of increased anthropogenic noise associated with use of plant, machinery and equipment, including percussive tools causing noise and vibrations. It is known that construction noise and increased human presence can adversely affect wild birds, impacting physiology and behaviour of birds.

An avoidance response at localised scale from ornithological species that are present in the immediate vicinity of the works is anticipated due to the construction activities and arising noise. This would result in a localised loss of nesting and foraging habitat. However, the wider area provides good foraging and nesting habitat, meaning the lost area would be negligible in proportion to the wider surrounding land. The resting and foraging habitat loss will also be temporary with the site returning to baseline conditions following completion of works, meaning ornithological species are likely to return upon completion of the works.

The best practice means, as defined in Section 72 of the Control of Pollution Act 1974 and BS5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites will always be employed to reduce noise to a minimum. Noisy activities along the entire scheme length are also not anticipated to occur simultaneously. Subsequently, noise and vibration impacts associated with the works are not anticipated to significantly affect ornithological species, with any effects localised, temporary and not impacting the conservation status of any ornithological species.

The A84 is an active road which experiences moderate to high volumes of traffic, with summer months seeing a significant traffic increase due to an influx of tourists. Subsequently, the presence of construction operatives will not significantly deviate from the current baseline, meaning additional human presence is unlikely to cause significant disturbance to ornithological species present in the vicinity of the works that will already experience a high level of anthropogenic disturbance.

Excessive or misdirected artificial light during darker months or at night can adversely affect ornithological species, particularly migratory species. Known effects on birds include phototaxis, disorientation (profoundly in migrating sea birds).

Artificial lighting on the worksite along the A84 Trunk Road may be required to facilitate safe working during darker days. However, the overall use of artificial lighting should be limited as construction hours are limited 7am to 7pm. Where lighting is required, the site lighting layout will be positioned and angled to only illuminate the localised active working areas and be temporary in nature, not shining onto the waters of River Uisage. Where it is identified that lighting spreads beyond the immediate construction boundary, screening will be installed to prevent light leaving the site boundary. Subsequently, artificial lighting impacts on ornithological species are not anticipated.

# Reptilians & Amphibians

The LLTNP advised the stonewall and wall remains provide suitable hibernation for reptilians and amphibians. Both animal groups in Scotland are protected under the Wildlife and Countryside Act 1981 (as amended), with the Act providing varying levels of protection for different species.

Removal of the sections of wall remains and stonewall will result in habitat loss for reptilians and amphibians. However, any sections of wall that are being removed, are only being deconstructed to the existing verge level and much of the walls will remain in-situ, at the rear of the verge/embankment, making any habitat loss very localised and small.

During work, there is the potential to impact reptilians and amphibians directly through the wall removal activities which may lead to entrapment or injury. However, taking into account the nature, scale of the works and the following mitigation measures, no significant risks on either species group is considered to be significant:

- A pre-construction protected species survey will be undertaken by an appropriately qualified ECoW;
- A appropriately qualified ECoW will be present at all times when wall remains and stonewall removal operations are undertaken, allowing works to be temporarily stopped by the ECoW and any spotted reptilians or amphibians relocated;
- Only small sections of wall remains and stonewall will be removed at a time;
- Wall remains and stonewall removal operations will only be undertaken within September; and
- All site operatives will be given a toolbox talk on working with reptilians and amphibians as part of the SEMP and the site introduction.

#### Land

The nature of the works will not affect the integrity of the current or future land use within the local area.

During the construction phase there will be a temporary very localised visual impact as a result of the works along the A84 Trunk Road requiring traffic management, machinery and equipment. However, plant, machinery and equipment will be stored onsite only temporary with works intended to be completed within 4 to 6 weeks, making changes to the existing baseline temporary. Throughout all stages of the works, the site will also be kept clean and tidy, with materials, equipment and wastes appropriately stored, minimising the landscape and visual effects. Any lifting plant such as cranes will lower their arm when not in use. Thus, the visual impact associated with the construction phase is not anticipated to be significant and any visual effects will be temporary in nature.

Proposed VRS upgrade works requires the deconstruction of approximately 280m of wall remains which are approximately 300mm high to verge level, working part of rear support for the concrete log. A further removal of 60m of rockwall along the scheme length is also required to facilitate the installation of 561m of new VRS in sections. Deconstruction and installation of new VRS will result in a localised visual landscape effect which differs from the existing baseline. However, the visual landscape effect will be minor and localised to the immediate vicinity of the works. Following completion of the installation, all verges will also be reprofiled and reseeded, to lessen any visual and landscape impacts of the barriers and reinstate

disturbed soils. Considering the above, completed works are not expected to give rise to significant visual landscape effects.

#### Soil

Works require earthworks to facilitate the installation of the continuous concrete log and related new VRS. Earthworks will be localised, of minor nature and be limited to the immediate vicinity of the A84 Trunk Road verge. While the earthwork will result in a very localised disturbance of soil layers, the area of the earthwork will previously have been extensively disturbed during the construction and maintenance of the A84, thus, not resulting in a significant change of baseline conditions. Furthermore, following completion of the installation, all verges will be reprofiled and re-seeded, to reinstate any soils. Considering the above, no significant impacts no soils as a result of the works are anticipated.

#### Water

There is potential for impacts on water quality from works requiring several materials with pollution potential like concrete, fuel, oils and chemicals like hydraulic fluid associated with construction plant, machinery and equipment. If a spill were to occur along the A84 work section, the spill could enter River Uisage which at its closest is <10m south-east of works. The environmental impact posed by a pollutant is dependent on the type of material and quantity entering the environment.

Approximate volumes/tonnage of material with pollution potential at this stage are not known.

Construction of the concrete log requires a trench to be dug first and then filled with concrete (176m³), the trench itself acting as a containment reducing the likelihood of an accidental concrete spill. Majority of the works are also situated >10m from the watercourse with vegetation acting as a buffer if an accidental spill were to occur. Furthermore, all material will be appropriately stored and handled in line with industry best practice and pollution prevention measures as discussed in the Materials Assets Section to reduce the likelihood of a pollution event. Therefore, a loss of containment with potential to reduce water quality is very unlikely to occur.

Effects of loss of containment on biodiversity are discussed in the Biodiversity Section.

#### Air

During works, there is the potential for temporary impacts on air quality. Activities undertaken on site may cause dust and particulate matter to be emitted to the atmosphere. However, taking into account the nature and scale of the works and the following mitigation measures, the risk of significant impacts to air are considered to be low:

- All plant, machinery and vehicles associated with the scheme must be maintained to the appropriate standards and must switch their engines off when not in use.
- All delivery vehicles carrying material with dust potential will be covered when travelling to or leaving site, preventing the spread of dust beyond the work area.

 All construction activities will operate in line with good practice measures for construction as outlined in the SEMP.

# **Climate Change**

During works there is potential for impacts as a result of the emission of greenhouse gases through the use of vehicles and machinery, material use and production, and transportation of materials to and from site. However, taking into account the nature and scale of the works and the following mitigation measures, the risk of significant impacts to climate are considered to be low:

- BEAR Scotland will adhere to their Carbon Management Policy;
- BEAR Scotland undergo annual CEEQUAL Assessment;
- All plant, machinery and vehicles will be switched off when not in use;
- Where possible and coronavirus measures allow, construction operatives will be encouraged to car-share, use organised company transport or public transport, reducing greenhouse gas emissions;
- Where possible, materials are to be sourced locally to reduce greenhouse gas emissions associated with materials movement; and
- Where external lighting is required, these will be switched off when not required, minimising electricity/fuel usage, indirectly reducing greenhouse gas emissions, provided health and safety permits.

#### **Material Assets**

# Fuel, Oils and Chemicals

As discussed in the Biodiversity – Loss of Containment Section, a number of pollution sources will be onsite, including fuels, oils and chemicals associated with construction works, machinery, equipment and plant. Works at it closest are <10m from River Uisage. If a loss of containment at the site were to occur, there is a risk of loss of containment entering the River Uisage. However, standard industry mitigation measures and pollution prevention measures will be strictly adhered to throughout the construction works, reducing the likelihood of pollutants entering River Uisage.

All onsite activities will be in accordance with relevant Pollution Prevention Guidelines (PPGs) and Guidance for Pollution Prevention (GPPs). Specific documents relevant to works include:

- GPP 1: Understanding your environmental responsibilities good environmental practices;
- GPP 4: Treatment and disposal of wastewater where there is no connection to the public sewer;
- GPP 5: Works and maintenance in or near water;
- PPG 6: Working at construction and demolition sites;

- GPP 8: Safe storage and disposal of used oils;
- PPG 18: Managing firewater and major spillages;
- GPP 21: Pollution incident response planning;
- GPP 22: Dealing with spills; and
- GPP 26: Safe storage drums and intermediate bulk containers.

All hazardous materials will be stored in accordance with the Control of Substances Hazardous to Health (COSHH) regulations. Any hazardous material to be utilised onsite is also required to undergo assessment under the COSHH Regulations 2002. These assessments will contain a section the on environment which highlights any precaution and mitigation requirements.

All hazardous material onsite will be stored in a designated storage area with oils and chemical stored in appropriately bunded storage cabinets. The COSHH store will be locked with only appropriate personal having access and an inventory register being maintained. Fuel stored on site and refuelling activities undertaken will be in line with the following:

- Only suitably double-skinned fuel bowser(s) or tank(s) in line with the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) will be utilised onsite.
- Fuel bowser(s) and/or tanks(s) must be stored away from water as far as practically possible and away from being struck by plant and machinery.
- All distribution and fuelling nozzles will be fitted with a shut-off valve.
- All refuelling activities are to be undertaken in a designated area onsite with a drip tray positioned underneath the nozzles when not in use.
- All fuel containers and nozzles are to be secured, for example with a lock when not in use.
- All staff undertaking refuelling activities are be appropriately trained and undertake these activities in line with site refuelling procedures.
- During refuelling of smaller mobile plant, a funnel and drip trays must be used.
- Generators and static plant may have the potential to leak fuel and/or other hydrocarbons and must have bunding with a capacity of 110%. If these are not available, then trip trays with a capacity of 110% must be placed beneath the equipment.

Where applicable and practicable, bio-degradable hydraulic fluids and oils should be utilising in machinery.

A spillage control procedure will be in place in which all staff are to be trained. Suitable spill kits will also be available onsite with all staff to be trained in their use.

All spills must be logged and reported. In the event of a spill, all works must stop, and the incident reported to the site supervisor and the BEAR Scotland Environment Team. SEPA must also be informed of any such incident as soon as possible and within 24 hours at the latest.

Where the above measures are implemented, no significant impact in relation to fuel, oils and chemical storage or spillage are anticipated.

#### Waste

The proposed project will give rise to a variety of wastes including rock (from wall deconstruction), plastics, metals and other miscellaneous material like packaging associated with both construction and welfare facilities. Earthworks to enable the installation of a continuous concrete log will also give rise soil and vegetation material, some of which will be retained on site for reprofiling.

All waste will be removed from site and disposed of safely in line will all relevant waste regulations.

To ensure waste is appropriately managed the waste hierarchy (Reduce, Reuse, Recycle and Dispose) will be employed throughout the construction works. Where possible, waste production will be minimised. Care will be taken to only order the correct quantity of required materials, preventing disposal of unused materials. Suppliers will also be requested to minimise all packaging of materials utilised on site where possible.

In addition, facilities onsite will be provided in a designated area to enable the correct segregation of waste, maximising recycling onsite. These are to be clearly marked and labelled. Likely materials suitable for recycling include rock, wood, glass, metals, plastics, oils and paper. Wastes not suitable for recycling will be sent to landfill or special waste treatment facilities, pending on the type of waste. All waste stored onsite will be adequately protected against the elements and vermin.

All wastes and unused materials will be removed from site in a safe manner by a licensed waste carrier upon completion of the works. The appointed waste carrier will have a valid SEPA waste carrier registration. A copy of which will be retained by BEAR Scotland. A copy of the waste transfer note is also to be provided to BEAR Scotland as early as practicably feasible and retained.

During the site induction all staff are to be informed that littering will not be tolerated. Staff are also encouraged to collect any litter seen on site.

All concrete washing will be undertaken in a designated area with full containment, preventing cement wash entering the natural surroundings. Cement washings will be captured and appropriately treated (settled out and pH corrected where required) prior to disposal off site.

Where the above measures are implemented, no significant impact in relation to waste is anticipated.

# **Cultural Heritage**

The desktop study identified several cultural heritage features within 300m of the proposed works as discussed in the Cultural Heritage baseline section. However,

none of the cultural heritage features have connectivity or are situated within the scheme footprint. Therefore, no significant impacts on cultural heritage are anticipated. Nonetheless, a protocol for unknown archaeological discoveries will be implemented as part of the SEMP.

# **Vulnerability of the Project to Risks**

There is potential for minor impacts on the project unidentified ecological and archaeological constraints, disturbance of protected species and complaints from road users. However, taking into account the nature and scale of the works, as well as the mitigation measures discussed in this document and detailed in the SEMP, the vulnerability of the project to risk is considered to be low.

#### **Cumulative Effects**

The proposed works will be limited to the A84 Trunk Road and its immediate road verge with potential arising impacts short-term and localised to within the scheme extent. There is potential for short-term impacts on vehicle travellers as a result of delays due to traffic management for multiple or consecutive schemes. However, due to the localised nature of the potential impacts and the short duration of the works with the following mitigation measures in place, no significant cumulative impacts are anticipated:

 Network restrictions as set out in Appendix 1/17 Restrictions – North West Unit of the 4G North West Term Contract will be adhered to.

# **Assessments of the Environmental Effects**

This assessment has not identified any significant effects on any environmental receptors as a result of the proposed works. No further assessment of environmental effects or consultation with statutory bodies is required.

# 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 which is situated in whole in the Loch Lomond and The Trossachs National Park and within close proximity of the River Spey SAC 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 works are localised, temporary and short-term and will be completed over 4 to 6 weeks during the hours of 0700 – 1900.
- Works run along the existing A84 Trunk Road verge, meaning they by virtue will not create a barrier effect or cause habitat fragmentation.

#### Location of the scheme:

- Land use will not change as a result of the works.
- While the works are situated in the Loch Lomond and The Trossachs National Park and within close proximity of the River Spey SAC, works are limited to the A84 Trunk Road and its immediate road verge vicinity.
- The scheme footprint experiences high anthropogenic disturbance in the form of traffic along the A84, which is especially high during summer months, reducing the suitability of the habitat for protected species.

#### Characteristics of potential impacts of the scheme:

- Any potential impacts of the works are expected to be localised, short-term and limited to the construction footprint.
- Mitigation measures will be in place to ensure no short-term or long-term significant negative impacts on biodiversity.
- Measures will be in place to ensure no short-term or long-term significant negative impacts on local residents or road users.
- Measures will be in place to ensure appropriate removal and disposal of waste.
- The SEMP will include plans to address environmental incidents.
- No impacts on the environment are expected during the operational phase as a result of the works.
- The scheme is designed to improve the safety of the A84 Trunk Road, which is considered to be a positive impact on human receptors.

# **Annex A**

"sensitive area" means any of the following:

- land notified under sections 3(1) or 5(1) (sites of special scientific interest) of the Nature Conservation (Scotland) Act 2004
- land in respect of which an order has been made under section 23 (nature conservation orders) of the Nature Conservation (Scotland) Act 2004
- a European site within the meaning of regulation 10 of the Conservation (Natural Habitats, &c.) Regulations 1994
- a property appearing in the World Heritage List kept under article 11(2) of the 1972 UNESCO Convention for the Protection of the World Cultural and Natural Heritage
- a scheduled monument within the meaning of the Ancient Monuments and Archaeological Areas Act 1979
- a National Scenic Area as designated by a direction made by the Scottish Ministers under section 263A of the Town and Country Planning (Scotland) Act 1997
- an area designated as a National Park by a designation order made by the Scottish Ministers under section 6(1) of the National Parks (Scotland) Act 2000.



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