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Environmental Impact Assessment Record of Determination

A75 680 C25 Ardachie

Contents

Project Details

Description

The proposed works are required to amend damage caused by multiple vehicle impacts to the westbound carriageway drystone wall, where the carriageway passes over the Barhoise Burn.

Construction activities will involve removing the damaged and loose stones and replacing the damaged drystone wall in several places. Existing stones will be removed to ground level and re-built using a combination of new stones and existing ones, where possible. Minor cut-back vegetation works may be required.

Construction is likely to take place in January 2022. Works are programmed to last for three day shifts (between 08:00 and 18:00).

Traffic management (TM) will consist of a single westbound carriageway closure, facilitated by temporary traffic lights.

Location

The scheme is located on the A75 carriageway where it passes over the Barhoise Burn, between Newton Stewart and Glenluce, Dumfries and Galloway.

The damaged wall is located at the following approximate National Grid Reference: NX 32841 62894.

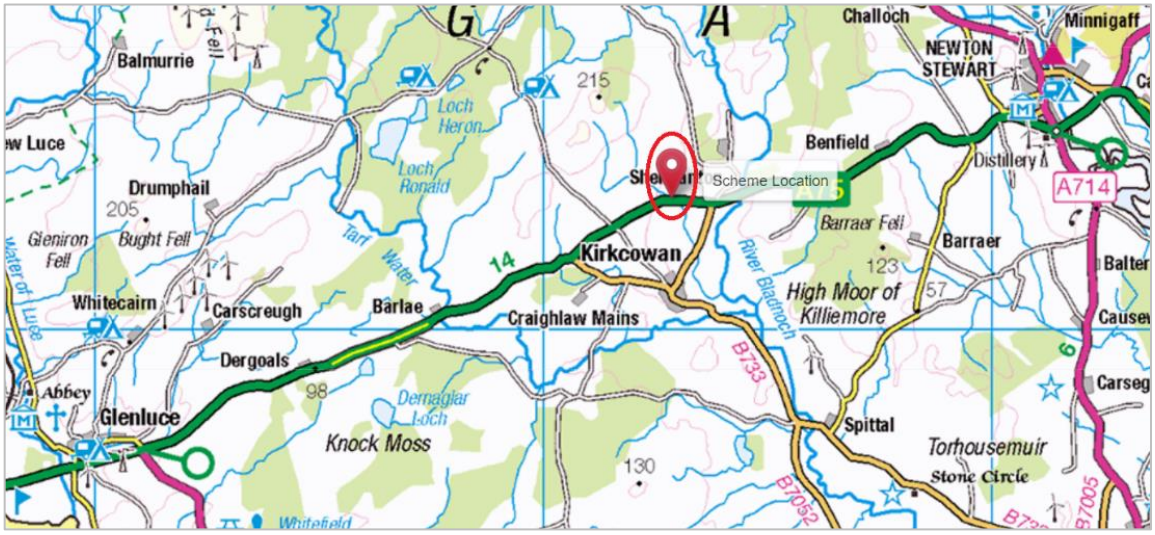

Figure 1 - Scheme Location

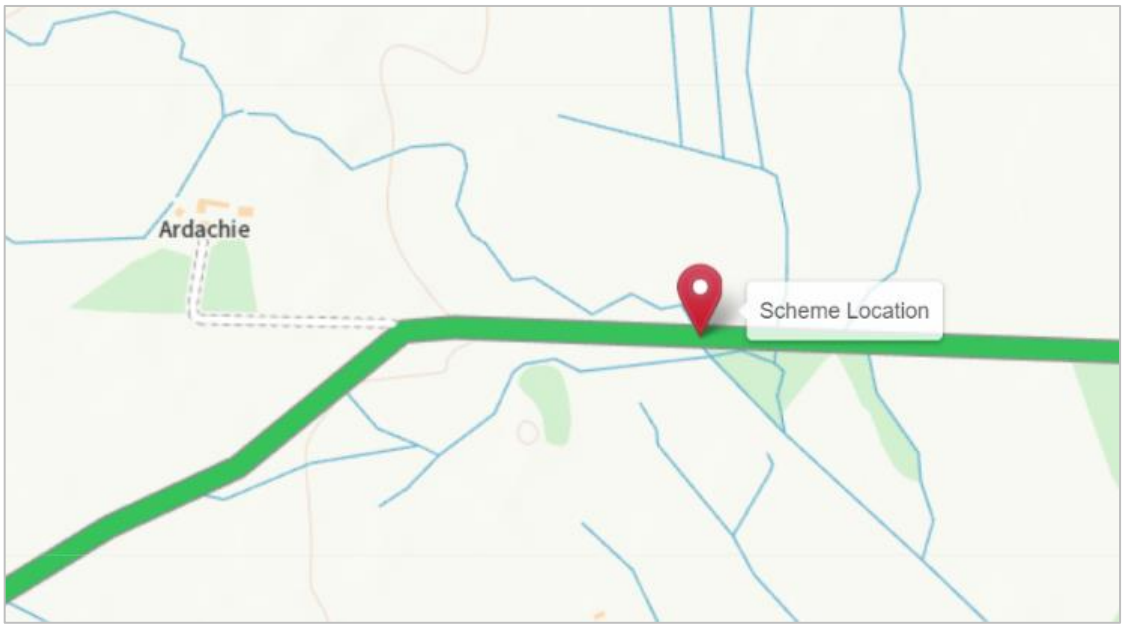

Figure 2 - Scheme Position

Description of local environment

Air quality

This section of the A75 is a rural carriageway primarily surrounded by agricultural land.

The Annual Average Daily Traffic Flows (AADT, 2020) at this location is 3,441 approximately 18% of which consists of Heavy Goods Vehicles (HGVs).

There are no Air Quality Management Areas (AQMA) declared by Dumfries and Galloway Council.

The works are minor and of a temporary nature and will not result in any permanent local changes to air quality levels.

It has been determined that the proposed project will not have direct or indirect significant effects to air quality.

Cultural heritage

PastMap has not identified any designated features of cultural heritage within proximity, therefore this impact has been scoped out of further assessment.

Landscape and visual effects

NatureScot Sitelink and PastMap have not identified any designated landscape features within proximity to the works.

The scheme will result in permanent change to the wall adjacent to the westbound carriageway. However, as these works will be reinstating the previous site condition, residual visual change is considered to be negligible.

It has been determined that the proposed project will not have direct or indirect significant effects to landscape or visual effects.

Biodiversity

The scheme is surrounded by agricultural, semi-improved grassland, scrub and woodland habitats. The A75 passes over the Barhoise Burn at this location.

NatureScot Sitelink Interactive Map has identified Barhoise Burn as part of the River Bladnoch Special Area of Conservation (SAC).

Approx. 3km downstream, Barnhoise Burn flows into the larger River Bladnoch SAC, and eventually into the Cree Estuary Site of Special Scientific Interest (SSSI) and the Solway Firth SPA, approximately 30km further downstream.

No other designated sites (either nationally or locally) have been noted within proximity to the works location.

Amey's Roadkill Database (2013 – 2021) has not identified any protected species within proximity to the scheme extents.

Amey's Invasive Non-native Species (INNS) Database has not identified any INNS within proximity to the scheme extents.

Geology and soils

The National Soil Map of Scotland has identified the surrounding local soils to consist of peats.

A desktop study using the British Geological Survey Map has identified major local geology type as the following:

Bedrock

Gala Unit 1 - Wacke. Sedimentary bedrock formed approximately 441 to 444 million years ago in the Silurian Period. Local environment previously dominated by deep seas.

Superficial

Peat - Peat. Superficial Deposits formed up to 3 million years ago in the Quaternary Period. Local environment previously dominated by organic accumulations.

Material assets and waste

Table 1 – Key Materials Required for Activities

Activity	Material Required	Origin/ Content
Site Construction	• Stone • Lime mortar	Exact type and quantity of stone unknown at time of writing Where lime mortar is needed, aggregates should be repurposed from secondary sources where possible.

Table 2 – Key Waste Arising from Activities

Activity	Waste Arising	Disposal/ Regulation
Site Construction	• Existing damaged stone	Existing stones from the collapsed wall should be repurposed on site, where possible.

Noise and vibration

The works are located on a rural stretch of the A75 carriageway. The closest residential property is Ardachie, approximately 500m west of the scheme location.

Baseline noise levels are likely primarily influenced by vehicle traffic from the carriageway, with secondary sources from local agriculture activity.

The scheme does not fall within a Candidate Noise Management Area (CNMA) as defined by the Transportation Noise Action Plan, Road Maps.

The Annual Average Daily Traffic Flows (AADT, 2020) at this location is 3,441 approximately 18% of which consists of Heavy Goods Vehicles (HGVs).

Given the minor scale of the works, daytime programming, and lack of sensitive properties within close proximity, the residual impact on noise and vibration is deemed neutral.

It has been determined that the proposed project will not have direct or indirect significant effects to noise and vibration.

Population and human health

The scheme is located in a rural location. The carriageway does not contain footpaths, cycleways or designated bridleways.

Traffic management will involve a single carriageway closure of the westbound carriageway, facilitated by traffic lights. The carriageway will remain open throughout the works. No significant delays are anticipated.

It has been determined that the proposed project will not have direct or indirect significant effects to population and human health.

Road drainage and the water environment

The Scottish Environment Protection Agency's (SEPA) Water Classification Hub has identified Barhoise Burn located directly beneath the A75 at this location. It is unclassified by SEPA. It flows into the River Bladnoch (ID: 10508) and eventually into the Cree Estuary/Solway Firth.

Several small field drains are also present within proximity.

The Indicative River & Coastal Flood Map by SEPA has highlighted a risk of river water flooding along the Barhoise Burn within the scheme extents.

Climate

The Climate Change (Scotland) Act sets out the target and vision set by the Scottish Government for tackling and responding to climate change. The Act includes a target of reducing CO_2 emissions by 80% before 2050 (from the baseline year 1990).

Scotland is working to reduce emissions of all major greenhouse gases by at least 75% by 2030, with the aim of reaching net zero by 2045**.**

Amey, working on behalf of Transport Scotland, undertake carbon monitoring. Emissions from our activities are recorded using Transport Scotland's Carbon Management System.

To support the journey towards carbon neutral and zero waste, Amey include potential opportunities for enhancement utilising circular economy principals within assessment of material assets.

Description of main environmental impacts and proposed mitigation

Biodiversity

Impacts

- Vegetation works will be undertaken during winter, out-with the bird nesting season.
- Works have the potential to result in a minor pollution event within the River Bladnoch SAC which would have a detrimental effect on aquatic life.

Mitigation

- Due to the proximity of the River Bladnoch SAC, these works have been subject to a Habitats Regulations Appraisal (HRA) screening, and the conclusions will be agreed with NatureScot prior to works commencing, where necessary.
- It has been proposed that there will be no working within the water course. If this should change then NatureScot, SEPA and the Fisheries Trust must all be notified in advance. It is likely that no working within the water will be permitted during fish spawning season (October to May inclusive).
- Debris and dust generated as a result of the works must be prevented from entering nearby watercourses or drains. This can be implemented via the use of drain covers, containment boards or similar.
- Should the works become delayed, any vegetation works taking place during bird nesting season (March – August inclusive) will first be subject to a bird nesting survey.
- The nesting survey must take place no more than 2-3 days prior to vegetation works taking place. This can be carried out by a competent personal (i.e. operative, supervisor, landscaper) or the E&S Team.

It has been determined that the proposed project will not have direct or indirect significant effects to biodiversity.

Geology and soils

Impacts

- Works may involve excavation to facilitate the works. Excavations will result in soil disturbance, which lead to erosion and polluted watercourses.

Mitigation

- Any excavation of soils should be kept to a minimum and only where necessary, with any excavated soils being backfilled or re-used on site as far as reasonably practicable.
- Weather reports should be monitored prior to the works, with all construction activities temporarily halting in the event of predicted high rainfall or wind.

It has been determined that the proposed project will not have direct or indirect significant effects to geology and soils.

Material assets and waste

Impacts

- Contribution to resource depletion through use of virgin materials.
- Greenhouse gas emissions generated by material production and transporting to and from site.

Mitigation

- Materials will be derived from recycled, secondary or re-used origin as far as practicable within the design specifications to reduce natural resource depletion.

It has been determined that the proposed scheme will not have direct or indirect significant effects to the consumption of material assets or waste.

Road drainage and the water environment

Impacts

- Lime mortar may be used on site to bind the stones into place. If these substances enter the watercourse then this has the potential to cause a pollution incident.
- If not adequately controlled, debris and run off from the works could be suspended in the surface water, in the event of a flooding incident, this debris may be mobilised and could enter the road drainage having a detrimental effect on the surrounding local water environment.
- Potential for spills, leaks or seepage of fuels and oils associated with plant to escape and reach drainage systems and watercourses, if not controlled; and,
- Flooding/adverse weather may impact the scheme extents, resulting in delays.

Mitigation

- Appropriate measures should be implemented on site to prevent any potential pollution to the natural water environment (e.g. debris, dust and hazardous

substances). This should include spill kits being present onsite at all times, the use of funnels and drip trays when transferring fuel etc.

- Any mixing of mortar on site should be carried out a minimum of 10m from any watercourses or drains.
- Debris and dust generated as a result of the works must be prevented from entering nearby watercourses or drains. This can be implemented via the use of drain covers, containment boards or similar.
- Visual pollution inspections of the working area will be conducted in frequency, especially during heavy rainfall and wind.
- Weather reports shall be monitored prior and during all construction activities. In the event of adverse weather / flooding events, all activities should temporarily stop, and only reconvene when deemed safe to do so, and run-off / drainage can be adequately controlled to prevent pollution.

Best practice, as detailed by SEPA's Guidance for Pollution Prevention (GPPs), will always be adhered to onsite. The residual impact for the water environment is considered neutral.

It has been determined that the proposed project will not have direct or indirect significant effects to the water environment.

Climate

Impacts

- Greenhouse gas emissions will be emitted through the use of machinery, material production, materials used (containing recycled and virgin materials), and transporting to and from site.

Mitigation

- Where possible local suppliers will be used as far as practicable to reduce travel time and greenhouse gas emitted as part of the works.
- Vehicles / plant shall not be left on when not in use to minimise and prevent unnecessary emissions being emitted.
- Further actions and considerations for this scheme are detailed in Material Assets and Waste.

It has been determined that the proposed project will not have direct or indirect significant effects to climate.

Vulnerability of the project to risks

As the works will be limited to the reinstatement of an existing wall, there is no change to the vulnerability of the road to the risk or severity of major accidents/disasters that would impacts on the environment.

It has been determined that the proposed project is not expected to alter the vulnerability of the existing trunk road infrastructure to risk of major accidents or disasters.

Assessment of cumulative effects

There are no other schemes close to this which will contribute to a cumulative impact on the environment.

Assessments of the environmental effects

The following environmental surveys / reviews have been undertaken:

- A design Initial Environmental Review, undertaken by the Environmental and Sustainability Team at Amey in October 2021.
- A Habitats Regulations Appraisal, undertaken by the Environmental and Sustainability Team at Amey in December 2021. As no LSEs were identified, no Appropriate Assessment will be 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 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 in whole or in part in River Bladnoch 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:

- Construction activities will be limited to the reinstatement of the existing wall structure.
- All operations will be undertaken during the day.
- Materials will be derived from recycled, secondary or re-used origin as far as practicable within the design specifications.

Location of the scheme:

- As the works take place over the River Bladnoch SAC, these works have been subject to a Habitats Regulations Appraisal (HRA) screening, which has concluded that there will be no likely significant effects on the SAC as a result of the works.
- It has been proposed that there will be no working within the water course.

Characteristics of potential impacts of the scheme:

- No significant residual impacts are predicted. Disruption due to construction activities are not expected to be significant and will be mitigated as far as is reasonably practicable.
- As the works will be limited to the reinstatement of an existing wall, there is no change to the vulnerability of the road to the risk or severity of major accidents/disasters that would impacts on the environment.

References of supporting documentation

A75 680 C25 Ardachie Habitats Regulations Appraisal.

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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