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Environmental Impact Assessment Record of Determination

A75 680 C25 Ardachie Scour Maintenance & Masonry Repairs & Parapet Replacement

Contents

Project Details

Description

There are significant concerns regarding the structural integrity of the current A75 Ardachie culvert (structure 680 C25). The structure is past its serviceable life and remedial works are urgently required on the culvert to prolong the lifespan of the culvert, increase safety of road users, and repair scour to the culvert on both sides. Due to the confined nature of the culvert, it has not been possible to safely access inside the culvert to undertake temporary repairs. As a result, permanent repair works must be undertaken. Delays to these repairs could exacerbate the structural issues, leading to higher repair costs and increased safety risks. Scour has been occurring at the structure and, in the event that this is allowed to deteriorate further, it has the potential to cause significant damage and result in a catastrophic collapse of the structure.

Additionally, due to the narrow nature of the A75 over the structure and the small (non-standard) offset distances, the parapets of the structure are regularly damaged by passing vehicles. As a result, there is a need to setback the parapets to improve road safety and reduce maintenance costs. This requires increasing the length of the culvert to allow the verge to be widened and the installation of new parapets. These works will be informed by appropriate geotechnical investigations to ensure suitability of ground for foundations.

The construction activities include:

- Temporary access to allow vehicle and pedestrian access to the culvert will be made for the duration of the works. This will comprise of hardcore materials such as crushed concrete, bricks, or stone.
- Installation of a GRP Liner that will make the existing structure redundant. The GRP liners will be jacked through the culvert by a specialist sub-contractor, then a grout will be applied to any gaps between the new liner and existing masonry arch barrel culvert.
    - It may be possible to install the liner without restricting the flow of the watercourse; however, there remains a possibility that over-pumping may be required. Appropriate methods of construction will be determined by the sub-contractor.
    - Where it is not possible to install the structural liner under live flow conditions, a dry working area will be established. This will include the watercourse being temporarily dammed both upstream and downstream of the affected section. This will be achieved using sandbags or a similar approved method (e.g. inflatable dams or cofferdams), ensuring minimal disturbance to the riverbed and banks.

- Installation of wing walls and a head wall at the culvert both upstream and downstream.
- Installation of a compliant vehicle restraint system (VRS) which will require localised widening on the verge at the structure where they will be installed. Including GRP liner and wingwalls/apron, the culvert will be extended by approx. 4m on each side to accommodate the verge widening
- To ensure embankment protection, a minimum of one rock roll will be installed on each side of the watercourse, both upstream and downstream of the culvert. Each rock roll has a diameter of 250mm, resulting in a total width of 500mm across both sides of the watercourse.

The plant and machinery required includes:

- Hydraulic jack for pushing GRP liner through culvert.
- Excavators to complete groundworks for verge widening.
- A pump for grouting the liner.
- Dumpers to be used for making the temporary access track.
- Hand tools.
- Welfare unit.
- Water pumps (should over pumping be required).

Water-related construction is scheduled for July 2025, primarily during daylight hours, to align with seasonal restrictions linked to the fish spawning period. The remaining non-water-based activities will be undertaken later and are expected to take around 2 to 3 months to complete. Verge-widening work may be carried out overnight to help reduce traffic disruption.

It is likely full road closure will be required for the VRS installation and verge widening. When the A75 is closed, westbound traffic will be diverted by exiting the A75 by turning left onto the B735. Traffic will then continue along the B735 before turning right onto the B733 Main Street (Kirkcowan) and then left onto Station Road (B733). Traffic will carry on for 2.4km before turning left and rejoining the A75. Eastbound traffic follows the same route in reverse.

Please see below Figure 1: Diversion route for closure of the A75, traffic diverted through Kirkcowan.

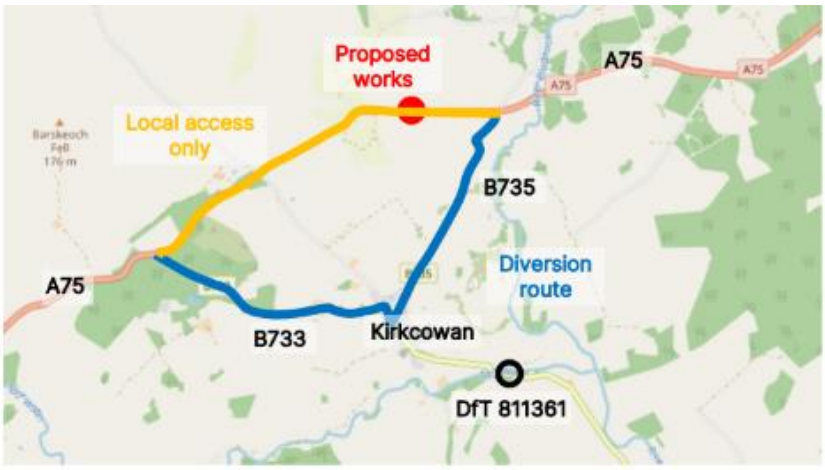

Figure 1 Diversion route for closure of the A75, traffic diverted through Kirkcowan. Contains public sector information licensed under the Open Government Licence v3.0. Contains OS data © Crown copyright and database right [2025]. Contains Royal Mail data © Royal Mail copyright and database right [2025]. Contains National Statistics data © Crown copyright and database right [2025].

This route adds 1.1km and approximately 2 minutes onto people's journey for those travelling along the A75. For vehicles travelling from the point of the closure at each side of the structure, the detour will extend their journey by 6.5km, resulting in an additional 7 minutes of travel.

Location

The scheme is located on a remote section of the A75 in a rural area of Dumfries and Galloway (please see Figure 2: Scheme Location Plan). The scheme is located at the following National Grid References (NGRs):

- Scheme Location: NX 32841 62901

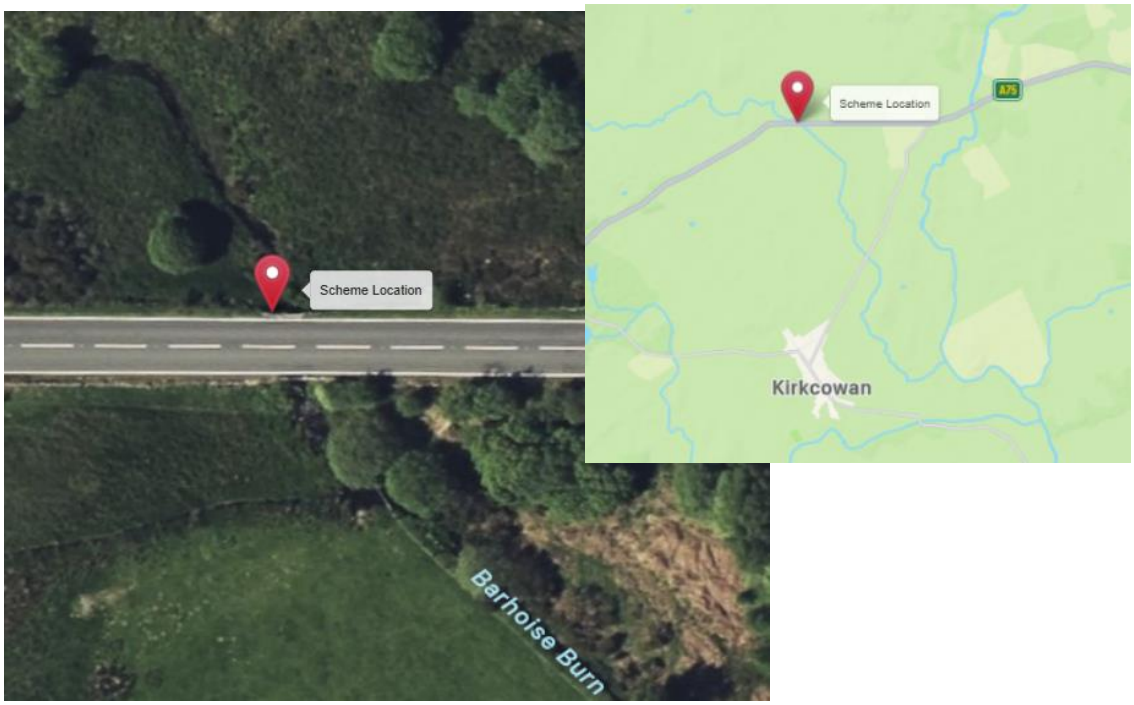

Figure 2: Scheme Location Plan: Contains public sector information licensed under the Open Government Licence v3.0. Contains OS data © Crown copyright and database right [2025]. Contains Royal Mail data © Royal Mail copyright and database right [2025]. Contains National Statistics data © Crown copyright and database right [2025].

Description of Local Environment

Air Quality

The scheme is located within a rural area of Dumfries and Galloway on the A75, surrounded by fields, grassland and woodland. There are no residential properties or other air quality receptors within 200m of the scheme.

Along the diversion route, which travels through Kirkcowan, there are approx. 30 residential properties. The following sensitive receptors are also located within 50m of the diversion route:

- Kirkcowan Primary School located along Willhouse Road approx. 30m north of the diversion route.
- Kirkcowan Parish Church located along the B733 approx. 40m south of the diversion route.

Baseline air quality is likely to be influenced by the traffic along the A75. In 2023, the Annual Average Daily Flow (AADF) for all vehicles on the A75 where works are to be undertaken (manual count point: 10744 located approx. 3.2km east) was 4,565, with 620 of these being Heavy Goods Vehicles (HGVs). The closest manual count point to Kirkcowan is located approx. 1.3km southeast of the planned diversion route, at reference 811361. This shows that in 2023 the AADF of traffic along the B733 was 486 with 30 of these being HGVs.

Dumfries and Galloway Council have not declared any Air Quality Management Areas (AQMA).

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

Cultural Heritage

A desk-based assessment has been undertaken using Pastmap. No designated cultural heritage features have been identified within 300m of the scheme and no non-designated assets have been identified within 200m. Therefore, Cultural Heritage has been scoped out for further assessment. In accordance with DMRB Guidance document LA 116: Cultural Heritage, no further assessment is required.

Landscape and Visual Effects

The scheme is located within a rural area of Dumfries and Galloway on the A75. The scheme is surrounded by fields, grassland and woodland and there are no receptors that will have a view of the works. The Barhoise Burn is within the scheme extents.

Scotland's Environment Map does not highlight any ancient woodland or Tree Preservation Orders (TPOs) within 500m of the scheme extents. There are also no National Scenic areas or Garden and Designed Landscapes within 500m of the scheme.

The Historic Land-Use Assessment (HLA) Map notes the land within the scheme extents is made up of Rectilinear Fields and Farms and Rough Grazing.

The Landscape Character Type (LCT) Map notes the scheme is within LCT 168 Drumlin Pasture in Moss and Moor Lowland. The Key characteristics of this landscape include:

- Prominent pasture drumlins, set in flatter moss and moor, bounded by hedges and drystone walls to form medium sized fields.
- Colour contrast between green drumlins and brown moss and moor.
- Scattered antiquities including standing stones and cairns.
- Relatively poor road network connecting isolated houses/farmsteads.
- A few small forests and policy landscapes.
- Intimate scale and complexity of drumlin landscape.

Biodiversity

A desktop study, undertaken using SiteLink, has highlighted that the scheme is located within River Bladnoch Special Area of Conservation (SAC) (8355). No Sites of Special Scientific Interest (SSSIs) have been identified within 200m of the scheme.

According to the National Biodiversity Network (NBN) Atlas no protected species or Invasive Non-Native Species (INNS) have been identified within 500m of the works.

A search of Transport Scotland's Asset Management Performance System (AMPS) online mapping tool has highlighted the presence of the target species rosebay willowherb (*Chamaenerion angustifolium*) and common ragwort (*Jacobaea vulgaris*) within the scheme extents.

A Preliminary Ecological Walkover (PEW) has been undertaken by two competent ecologists on the 1st of May 2025.

Geology and Soils

SiteLink notes there are no Geological Conservation Review Sites or SSSIs designated for geological features within 200m of the scheme extent.

Scotland's Soils Map notes that's the soils within the scheme extents are made up of Dystrophic semi-confined peat with peaty rankers.

The Geology of Britian Viewer notes that the geological features within the scheme extents are made up of:

Bedrock Geology

- Gala Unit 1 - Wacke. Sedimentary bedrock formed between 443.8 and 440.8 million years ago during the Silurian period.

Superficial Deposits

- Peat - Peat. Sedimentary superficial deposit formed between 2.588 million years ago and the present during the Quaternary period.

The Scottish Environment Protection Agency (SEPA) Water Classification Map notes that the groundwater conditions in Galloway (ID: 150694) are considered to be in good condition.

A desktop study to determine potential sources of contamination has been undertaken and found that there are no landfill sites within 200m of the scheme extents.

Material Assets and Waste

Table 1: Key materials required for activities.

Activity	Material Required	Origin/ Content
Site Construction	• Asphalt (to tie in topside) • Extra soil required will be topsoil to finish of verges.	• Materials will be derived from recycled, secondary or re-used origin as far as practicable within the design specifications

Activity	Material Required	Origin/ Content
	• Precast concrete headwalls and wingwalls. • Grout for GRP Liner • Rock rolls • Metal VRS • Concrete for VRS posts	to reduce natural resource depletion and associated emissions. • Fill material and the rock rolls will be sourced from local quarries. Imported stone will be a general fill (Class 1A)

Table 2: Key wastes arising from activities.

Activity	Waste Arising	Disposal/ Regulation
Site Construction	• Unsuitable material from excavations (potentially including peat soils) • Masonry from old/existing parapets	• All waste will be stored in secure containers and segregated into different waste streams. • All waste leaving the site will be removed from site by a licence waste carrier. All waste documentation will be provided when requested. • Some of the excavated material will be reused to landscape the embankments where suitable – this includes the peat soils.

Noise and Vibration

The scheme is located within a rural area of Dumfries and Galloway on the A75. There is one residential property within 300m, located approximately 260m south. There are no other noise sensitive receptors within 300m of the scheme.

Along the diversion route, which travels through Kirkcowan, there are approx. 30 residential properties. The following sensitive receptors are also located within 50m of the diversion route:

- Kirkcowan Primary School located along Willhouse Road approx. 30m north of the version route.
- Kirkcowan Parish Church located along the B733 approx. 40m south of the diversion route.

Baseline noise is likely to be influenced by traffic along the A75. In 2023, the AADF for all vehicles on the A75 where works are to be undertaken (manual count point: 10744 located approx. 3.2km east) was 4,565, with 620 of these being HGVs. The closest manual count point to Kirkcowan is located approx. 1.3km southeast of the planned diversion route, at reference 811361. This shows that in 2023 the AADF of traffic along the B733 was 486 with 30 of these being HGVs.

According to Scotland Noise Map, the noise within the scheme extents ranges from 68.01 d to 56.24 dB LDAY during daytime hours. During nighttime hours the noise within the scheme extents ranges from 64.62 dB to 54.16 dB LEVG.

The scheme is not located within a Candidate Noise Management Area (CNMA).

Population and Human Health

The scheme is located within a rural area of Dumfries and Galloway on the A75. The scheme is surrounded by fields, grassland and woodland. The current agricultural practices immediately surrounding the scheme appear to include livestock grazing. One residential property lies within 300 metres of the site, situated approximately 260 metres to the south. It is accessed via a minor road branching from the A75, though it falls outside the boundaries of the scheme. There are no other community facilities within 300m of the scheme. The closest village to the works that provides community facilities, including a church, primary school and a doctor's surgery, is Kirkcowan which is located approx. 2km south of the works.

There are no core paths, National Cycle Network Routes or Bridleways within 300m of the scheme extents .

The scheme extents are not street lit and there are no bus stops or laybys within the scheme extents. Other land uses located within 300m of the works include agricultural fields, however, there are no access points to these within the scheme extents.

Road Drainage and the Water Environment

The works are located within the Barhoise Burn. This watercourse is not classified according to SEPA's water classification hub. However, the Balhoise Burn is a tributary of the River Bladnoch which has a 'good' overall ecological potential.

According to SEPA Flood Maps, the scheme is located within an area with high likelihood of river flooding. This suggests that each year this area has a 10% chance of flooding.

The scheme is located within the Galloway (ID: 150694) groundwater catchment which is considered to be in good condition. The scheme is not within a Nitrate Vulnerable Zone (NVZ).

Drainage within the scheme extents is unknown.

Climate

Carbon Goals

The Climate Change (Scotland) Act 2009 sets out the target and vision set by the Scottish Government for tackling and responding to climate change (The Climate Change (Scotland) Act 2009). The Act includes a target of reducing 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 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019).

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

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

Monitoring, Management and Opportunities

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

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

Further information identifying how Amey will obtain the above Carbon Goals can be viewed within the Carbon Management and Sustainability Plan Roadmap to net-zero: STRNMC – South West.

Policies and Plans

This Record of Determination (RoD) has been undertaken in accordance with Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017 (RSA EIA Regulations) along with Transport Scotland's Environmental Impact Assessment Guidance (Guidance – Environmental Impact Assessments for road projects (transport.gov.scot)). Relevant guidance, policies and plans accompanied with the Design Manual for Roads and Bridges (Design Manual for Roads and Bridges (DMRB)) LA 101 and LA 104 were used to form this assessment.

Description of Main Environmental Impacts and Proposed Mitigation

Air Quality

Impacts

- On site construction activities carry a potential to produce airborne particulate matter and generate emissions that may have a temporary impact on local air quality levels.
- TM implemented during the scheme may result in an increase in vehicle emissions through idling vehicles and increased congestion. This may result in a temporary deterioration in local air quality particularly in Kirkcowan, located along the diversion route.
- The impacts identified will be temporary for the duration of the works only and therefore no change is predicted on air quality.
- Post construction there will be no change to the traffic volume, speed or road alignment.

Mitigation

- Best practice and measures as outlined in the 'Guidance on the assessment of dust from demolition and construction (January 2024)' published by the Institute of Air Quality Management (IAQM), which includes the following mitigation relevant to this scheme will be followed:
    - Drop heights from conveyors and other loading or handling equipment will be minimised;
    - Vehicles entering and leaving the work area will be covered to prevent escape of materials during transport;
    - Equipment will be readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods; and
    - When not in use, plant, vehicles and NRMMs will be switched off and there will be no idling vehicles.
    - Plant, vehicles and NRMM will be regularly maintained, paying attention to the integrity of exhaust systems to ensure such fuel operated equipment is not generating excessive fumes.
- Green driving techniques will be adopted, and effective route preparation and planning will be undertaken prior to works.
- Where possible, materials will be sourced locally.

No significant effects are anticipated and therefore no further assessment is required in accordance with DMRB Guidance document LA 105: Air Quality.

Landscape and Visual Effects

Impacts

- The construction works will temporarily affect both the views of and from the road due to the presence of traffic management measures, construction plant, and associated activities.
- The works will also have a short-term impact on the surrounding landscape, altering its visual character during the construction phase.
- The works will permanently change the surrounding landscape as works include installation of VRS and enhancements to the culvert.

Mitigation

- Plant/machinery/materials will be stored in unobtrusive areas when not in use.
- Reinstatement of vegetation using native species will be implemented to help minimise the visual impact of the works.

On the condition that the above mitigation measures and best practice are adhered to, no significant impacts on the local landscape are anticipated, particularly given the absence of visual receptors in the vicinity .

Therefore, in accordance with DMRB Guidance document LA 107: Landscape and Visual, no further assessment is required.

Biodiversity

Impacts

- An increase in noise levels has the potential to disturb any protected species nearby.
- Due to the proximity of the works to the watercourse, dust and pollution incidents including spills, leaks or seepage of fuels and oils, may enter the water course which will negatively impact the River Bladnoch.
- The proposed works have the potential, in the absence of appropriate mitigation, to negatively impact qualifying species for which the SAC is designated. A Habitats Regulations Appraisal has been undertaken which concluded that with mitigation measures implemented, there will be no Adverse Effects on Site Integrity.

- In-channel works and/or the diversion of water flow could adversely impact fish species within the burn, particularly if works occur during the migration and spawning season (October to April).
- Sedimentation during works can impact the aquatic species using the watercourse.
- Longer culverts can alter the natural flow regime of the watercourse; this could also have an impact on the aquatic species within this habitat. However, given the minimal alteration to the natural flow regime and channel characteristics, the impact on aquatic species is expected to be negligible.
- The placement of rock rolls will narrow the watercourse by approximately 50cm, occupying over 10% of its total width.
- Reptiles present within the proposed works area could be directly adversely impacted by the works in the absence of mitigation, particularly via vegetation clearance and the removal of potential refugia.

Mitigation

- Site personnel will remain vigilant for the presence of any protected species throughout the works period.
- Effects from noise will be kept to a minimum through the use of appropriate mufflers and silencers fitted to machinery. All exhaust silencers will be checked at regular intervals to ensure efficiency.
- A reptile survey has been undertaken to determine the potential presence and population of reptile species within the works area. Based on the findings, a detailed reptile method statement has been developed, outlining safe working methodologies to minimise impacts to reptiles during construction and any potential effects on local reptile populations. These methods include:
    - All on-site staff will remain highly vigilant for reptiles at all given times when within or surrounding the proposed works area.
    - No equipment will be stored within suitable reptile habitat. If equipment storage is required, this will be restricted to a designated works compound.
    - Biosecurity measures will be implemented when bringing equipment onto site/taking equipment offsite to prevent the spread of Snake Fungal Disease (SFD) which has been reported in the UK. The use of disinfectants such as Virkon are appropriate to prevent the spread of SFD.
    - Storage of soil or rock material on site will be avoided as far as possible.
    - Any stone or subsoil material requiring storage overnight will be compacted to render it less suitable for reptiles to use as a resting place.

    - These works will require an Ecological Clerk of Works (ECoW) to be present on site.
- A Reptile and protected species toolbox talk will be delivered to site operatives prior to works.
- Due to the requirement for vegetation clearance to widen the verge a pre-works nesting bird check will be required prior to any vegetation cutback. The pre-works nesting bird check will be carried out by a suitably qualified/experienced ecologist before works can proceed during breeding bird season (March to August).
- Where equipment can be used with hoods, doors or sleeves to reduce noise levels, these will be used wherever possible.
- Open excavations will be fenced off and/or covered to avoid animals becoming trapped or injured. A mammal ladder (e.g. wooden plank) will be erected to allow any that may become trapped to escape. All excavations will be checked each morning to ensure no animals have become trapped overnight and an ecologist contacted for advice should any animals be encountered.
- In the event that damming and overpumping is not required, the river channel will remain open at all times and fish movement upstream will be possible throughout the course of the proposed scheme. If damming and overpumping is required for the works, specialist fish rescue will be undertaken.
- Galloway Fisheries Trust have been consulted due to the need for working in water. This has concluded that the Fisheries Trust will conduct a fish rescue before works can commence. This will include:
    - Electrofishing prior to the works in the river.
    - A team of three qualified staff will catch and remove the fish which will then be transported and relocated away from the works.
    - Biosecurity guidance will be followed with all equipment disinfected before and after entering the water.
- Post-construction monitoring will be implemented by Amey to assess the watercourse flow and the fish passage success.
- The design of the extended culvert incorporates features that support fish passage, with only negligible changes to the natural flow regime. As such, no significant disruption to aquatic habitat or species movement is anticipated.
- Silt curtains will be used to mitigate against potential impacts to pollution and siltation-sensitive fish.

With the above mitigation measures and best practice being adhered to, no significant effects are predicted on biodiversity.

Therefore, in accordance with DMRB Guidance document LA 108: Biodiversity, no further assessment is required.

Geology and Soils

Impacts

- Due to the works requiring excavation for the widening of the verge and the installation of VRS, this will cause soil disturbance which can create adverse conditions, including erosion and polluted soils.
- Excavation within peat soils can result in a carbon release which contributes to greenhouse gas emissions being released.
- Peat soils have low shear strength and high compressibility which will prevent the VRS being constructed on these soils.

Mitigation

- A Peat Method Statement will be prepared in advance of the works. This will include mitigation such as:
    - Minimise peat excavation and disturbance to prevent the unnecessary production of waste.
    - Peat will be reused as soon as possible following excavation and handled in a manner that preserves its structure and moisture content. Where immediate reuse is not feasible, peat will be temporarily stored in accordance with best practice—protected from erosion, compaction, and decomposition, with moisture levels actively monitored and maintained through measures such as water spraying as required.
- There will be no unnecessary storage of materials or parking of vehicles on soft ground or grassy areas, as this may destroy the soil structure and damage grass. Hardstand will be provided. If damage occurs appropriate re-instalment will be carried out as specified.
- Excavated soils will be appropriately contained/covered and protected from the elements.
- Spill kits will be present on site and all operatives will be fully trained in their use. Any fuels or chemicals required for use will be stored securely with dip trays used appropriately and stored under any chemical or fuel containers.
- If any unusual odours or soil colourations are identified during the works, the works will cease, and the environmental team will be notified.

On the condition that the above mitigation measures and best practice are adhered to, the residual effect on geology and soils is considered not significant due to the size of the scheme. However, in accordance with DMRB Guidance document LA 109: Geology and Soils, ground investigation works will be undertaken to determine the requirements for dealing with the peat**.**

Material Assets and Waste

Impacts

- Transportation and recovery of materials/waste will require energy deriving from fossil fuel, a non-renewable source.
- The works will result in contribution to resource depletion through use of virgin materials.

Mitigation

- Where possible, materials will be obtained locally to reduce haulage and scheme associated journeys, reducing impact of associated Greenhouse Gases (GHG) emissions on climate change.
- Any waste leaving the site will be removed from site by a licence waste carrier. All waste documentation will be provided when requested. The contractor will adhere to waste management legislation and ensure they comply with waste management Duty of Care.
- As noted in the Geology and Soils section, a Peat Method Statement will be prepared in advance of the works.

No significant effects are predicted as a result of the material assets required and the wastes being produced.

Therefore, in accordance with DMRB Guidance document LA 110: Material Assets and Waste, no further assessment is required.

Noise and Vibration

Impacts

- The works will not change the existing baseline noise level post construction for any sensitive receptors.
- Construction activities such as the use of heavy plant and machinery including excavators and a Hydraulic jack associated with the proposed works have the potential to cause noise and vibration impacts to nearby noise sensitive receptors, including protected species.
- Changes in traffic volume on the roads along the diversion route may cause an increase in noise for the local residents and receptors in Kirkcowan. According to the DMRB, a change in noise level of 1 dB LA10,18h is equivalent to a 25% increase in traffic flow.

- There are no anticipated permanent negative impacts on noise and vibration following the completion of works.

Mitigation

- Effects from noise will be kept to a minimum through the use of appropriate mufflers and silencers fitted to machinery. All exhaust silencers will be checked at regular intervals to ensure efficiency.
- Unnecessary revving of engines will be avoided and equipment will be switched off when not in use.
- Drop height of materials will be minimised.
- 'Soft start' techniques will be utilised with noise heavy equipment/plant/ machinery in order to avoid disturbance.
- The noisiest works will be completed before 23:00 where feasible.

With best practice mitigation measures in place, no significant effects associated with Noise and Vibration are anticipated.

Therefore, in accordance with DMRB Guidance document LA 111: Noise and Vibration no further assessment is required.

Population and Human Health

Impacts

- TM has the potential to temporarily disrupt road users and nearby residents, leading to congestion and increased travel times due to the diversion route implemented during construction.
- The works will improve road safety for all road users along this stretch of the A75.
- A total of 721m^2 of permanent land take is required, with some land take from either side of the A75 carriageway. This land take is required from agricultural land (rough grazing) from two separate landowners. It is not expected that the area of rough grazing land required for the scheme will result in any farm viability issues for the landowner.
- Temporary land take from private property is required for the access tracks. However, these will be reinstated once the works are complete.
- The diversion route adds 1.1km and approximately 2 minutes onto people's journey. For vehicles travelling from the point immediately either side of the closure, the detour will extend their journey by 6.5km, resulting in an additional 7 minutes of travel.

Mitigation

- TM restrictions/arrangements and any expected travel delays will be publicised within the local and wider area, in an effort to minimise disturbance to vehicular travellers.
- Robust traffic management measures will be in place throughout the works, with the aim of minimising disruption to road users and local residents. This will include clear signage, communication of any changes, and coordination with local authorities.
- Communication with landowner is required. This is already in progress.
- The local authority will be notified due to potential nighttime working.

No significant effects associated with Population and Human Health are predicted. Therefore, in accordance with DMRB Guidance document LA 112: Population and Human Health no further assessment is required.

Road Drainage and the Water Environment

Impacts

- If not adequately controlled, debris and run off from the works could be suspended in the river water. In the event of rainfall or 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, which may negatively affect the distant water environment, in particular Barhoise Burn.
- The cross-sectional area will be reduced by approx. 36% with the installation of the liner. This suggests that the structure can carry less water which may potentially increase the risk of flooding. A flood risk assessment has been undertaken and has concluded there is minor impact.
- The placement of rock rolls will narrow the watercourse by approximately 50cm, occupying over 10% of its total width. This will not impact the fish passage.
- Lengthening the culvert may impact the natural sediment movement, leading to erosion downstream or sediment buildup upstream. This in turn drives demand for further hard engineering responses (e.g. gabion baskets, concrete banks) which may create additional erosion and deposition problems, and the need to carry out sediment removal.
- Should flooding occur, this may delay the scheduled works.

Mitigation

Under the Water Environment (Controlled Activities) (Scotland) Regulations 2011, a simple licence is required for these works. SEPA have been consulted and an application submitted. Works will not be undertaken until the licence has been granted and all works will be undertaken in accordance with any licence conditions.

- Works will also be carried out in accordance with GBR9. This includes:
  - Machinery will only operate in water where it is impracticable for it to operate on dry land.
  - Refuelling will take place at least 10m away from any surface water.
  - Any static plant or equipment used within 10m of surface water will be positioned on a suitable drip tray with capacity for 110% of the fuel tank supplying the static plant or equipment.
  - Machinery used in or near surface water will not leak any oil.
  - Washing of any machinery will take place at least 10m away from any surface water and the washings will not be allowed to enter any surface water.
  - Machinery will not be operated in rivers, burns and ditches when fish are likely to be spawning in the affected surface water, or in the period between spawning and the subsequent emergence of juvenile fish.
  - Machinery will not be operated in rivers, burns and ditches during forestry operations.
  - Following the operation of the machinery, any damage caused by the operation to the bed and banks of the surface water will be repaired, including re-establishing vegetation on any areas of bare earth on the banks resulting from the operation, either by covering the area with grass turfs or lining them with a biodegradable geotextile and seeding.
- All debris which has the potential to be suspended in surface water and wash into the local water environment will be cleaned from the site following the works.
- Debris and dust generated as a result of the works will be prevented from entering the drainage system. This can be via the use of drain covers or similar.
- Appropriate measures will be implemented onsite to prevent any potential pollution to the natural water environment (e.g., debris, dust, and hazardous substances). This will include spill kits being present onsite at all times, and the use of funnels and drip trays when transferring fuel etc.
- The Amey control room will be contacted if any pollution incidences occur.
- Visual pollution inspections of the working area will be conducted in frequency, especially during heavy rainfall and wind.

- If a dry working area is required, discharge points will be stabilised to prevent erosion and minimise turbidity in the receiving watercourse. The site will also be reinstated to its original condition or better, including any necessary bank stabilisation or habitat restoration.
- Weather reports will be monitored prior and during all construction activities. In the event of adverse weather/flooding events, all activities will temporarily stop, and only reconvene when deemed safe to do so, and run-off/drainage can be adequately controlled to prevent pollution.
- Prior to works commencing, all operatives will be briefed on SEPA's Guidance for Pollution Prevention (GPP) documents (particularly GPP 1, GPP 2, GPP 5, PPG 6, GPP 8 and GPP 22).
- Silt traps/nets will be installed prior to any work in the watercourse
- Prior to works commencing, all operatives will be given the Water Pollution Prevention briefing.

All works will operate in accordance with current best practice, as demonstrated by the Scottish Environmental Protection Agency's (SEPA's) GPPs and will only be undertaken after a simple licence has been granted. The effect on Road Drainage and the Water Environment is considered not significant.

Therefore, in accordance with DMRB Guidance document LA 113: Road drainage and the water environment no further assessment is required.

Climate

Impacts

- GHG emissions will be generated through the use of machinery, vehicles and materials (both recycled and virgin) required for the scheme, as well as through transportation to and from the site.
- Excavation within peat soils can result in a carbon release which contributes to greenhouse gas emissions being released, however this will be minimal due to the small-scale nature of the works.

Mitigation

- Local suppliers will be used as far as reasonably practicable to reduce travel time and GHG emitted as part of the works.
- Vehicles/plant will not be left on when not in use to minimise and prevent unnecessary emissions.
- Further actions and considerations for this scheme are detailed in the above Material assets and waste section.

- Please refer to the geology and soils mitigation for further mitigation regarding peat soils.

With best practice mitigation measures in place, the residual significance of effect on climate is considered to be neutral.

Therefore, in accordance with DMRB Guidance document LA 114: Climate, no further assessment is required.

Vulnerability of the Project to Risks

There will be no change in vulnerability of the road to risk, or in severity of major accidents/disasters that would impact on the environment. However, as works will be undertaken in a watercourse with a high-risk of river flooding, there may be a risk of flooding within the scheme extents. The Flood Risk Assessment determined that the proposed works will result in only a negligible increase in flood risk during an extreme 1 in 200-year event. Hydraulic modelling indicates an estimated additional flow of approximately 10 litres directed east of the structure. This flow will be confined to an area already susceptible to flooding during events as frequent as the 1 in 5-year threshold, indicating no new receptors will be at risk to flood extents.

The works will be programmed as far as is reasonably practicable to avoid periods of adverse weather conditions, ideally during low water levels.

With measures and standard working practices being implemented, it has been determined that the vulnerability of the project to risks of major accidents and disasters is considered to be low.

Assessment Cumulative Effects

The Scottish Road Works Commissioner does not note any other works being undertaken within close proximity to the scheme.

Amey's Current Programme of Works notes there are no works being undertaken on the A75 where works are to be undertaken at the same time.

Dumfries and Galloway Councils planning portal does not note any other works being undertaken within close proximity to the scheme extents.

Any future schemes will be programmed to take into account already programmed works, and as such any effect (such as from TM arrangements and potential construction noise) will be limited.

Overall, it is unlikely the proposed works will have a significant cumulative effect with any other proposed works in the local area.

Assessments of the Environmental Effects

Following assessment as detailed within this Record of Determination, and provided that mitigation measures are in place and best practice is followed, the residual impact is deemed neutral and there will be no significant effects on the environment.

The following environmental surveys/reviews/consultations have been undertaken:

- Environmental Scoping Assessment (ESA) undertaken by Amey's Energy Transition & Sustainability Team in June 2025
- A Preliminary Ecological Walkover undertaken by the Amey Sustainability Solutions Team in June 2025.
- A Habitats Regulations Appraisal (HRA) process, a Stage 1 Screening, and Stage 2 Statement to Inform Appropriate Assessment (AA) in June 2025.
- A Reptile Species Protection Plan in June 2025.
- Consultations with relevant bodies SEPA, NatureScot, and Galloway Fisheries Trust undertaken by the Amey Sustainability Solutions Team in May/July 2025.

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 Barhoisie Burn which is within the 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:

- At end of life, components will be recycled where possible, reducing waste to landfill.
- The design option conveys sustainability benefits by significantly reducing the quantity of maintenance interventions required at the location.
- The successful completion of the scheme will provide several benefits, including prolonging the lifespan of the culvert, enhancing road user safety, and repairing scour on both sides of the culvert.

Location of the scheme:

- The scheme is situated in whole or in part in a “sensitive area” as listed under regulation 2 (1) of the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended).
- The works are located both upstream and downstream within Barhoisie Burn which is within the River Bladnoch SAC. A Habitats Regulations Appraisal (HRA) has been undertaken which concluded that with mitigation measures implemented, there will be no Adverse Effects on Site Integrity.

Characteristics of potential impacts of the scheme:

- Containment measures of the working area will be in place to prevent debris or pollutants from entering the surrounding water environment.
- Materials will be derived from recycled, secondary or re-used origin as far as practicable within the design specifications.
- Measures to minimise the potential disturbance to protected species including fish species will be implemented.
- Works within the river channel will be limited to between 1 May and 30 September to avoid time sensitive periods, as per SEPA best practice guidelines.
- The risk to major accidents or disasters is considered low.
- The works will be temporary and localised and completed with traffic management in place during daytime hours.

- Consultations with relevant bodies SEPA, NatureScot, and Galloway Fisheries Trust undertaken by the Amey Sustainability Solutions Team in May/July 2025.

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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