



**TRANSPORT  
SCOTLAND**  
CÒMHDHAIL ALBA

# **Environmental Impact Assessment Record of Determination**

## **A75 Muil Farm**

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## Project Details

### Description

The works are required to maintain the safety and integrity of the A75 carriageway within the scheme extents. The main driver for this scheme is failing surface course, which is displaying extensive areas of cracking.

Works will involve surface course treatment using TS2010 via inlay (depths yet to be fully determined). The total area of the works is approximately 17,449m<sup>2</sup>.

Construction activities will likely include:

- Milling of existing bituminous material by road planer;
- Hand-held jackhammer and compressor for breaking up surfaces not accessible by planer;
- Loader/excavator used to collect and move excess material;
- Base/binder material laid and compressed (where required);
- New bituminous material laid by a paver;
- Material compacted using a heavy roller;
- Mechanical sweeper to collect loose material;
- HGV for removal and replacement of material; and,
- Road markings replaced.

The works have been programmed for July 2022 and will involve nightworks. Exact duration and timings have yet to be fully determined.

Traffic management is likely to consist of weekend / overnight closures with a suitable diversion route put in place.

Dumfries and Galloway Council were contacted on the 12th of May 2022 regarding the night works. No comments have been made.

### Location

The works are located on the A75 carriageway south-east of Kirkcowan, within Dumfries & Galloway. The works have the following National Grid References:

Scheme Start: NX 29752 61360

Scheme End: NX 27916 60436

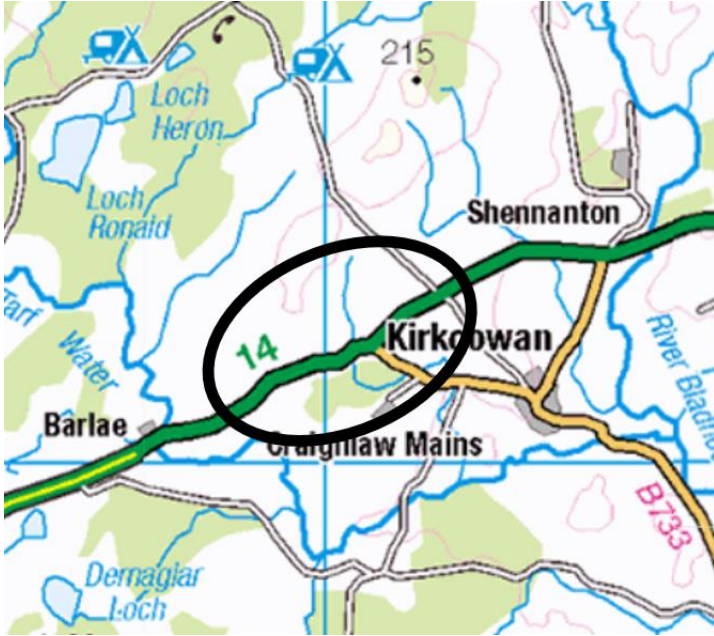


Figure 1 - Scheme Location

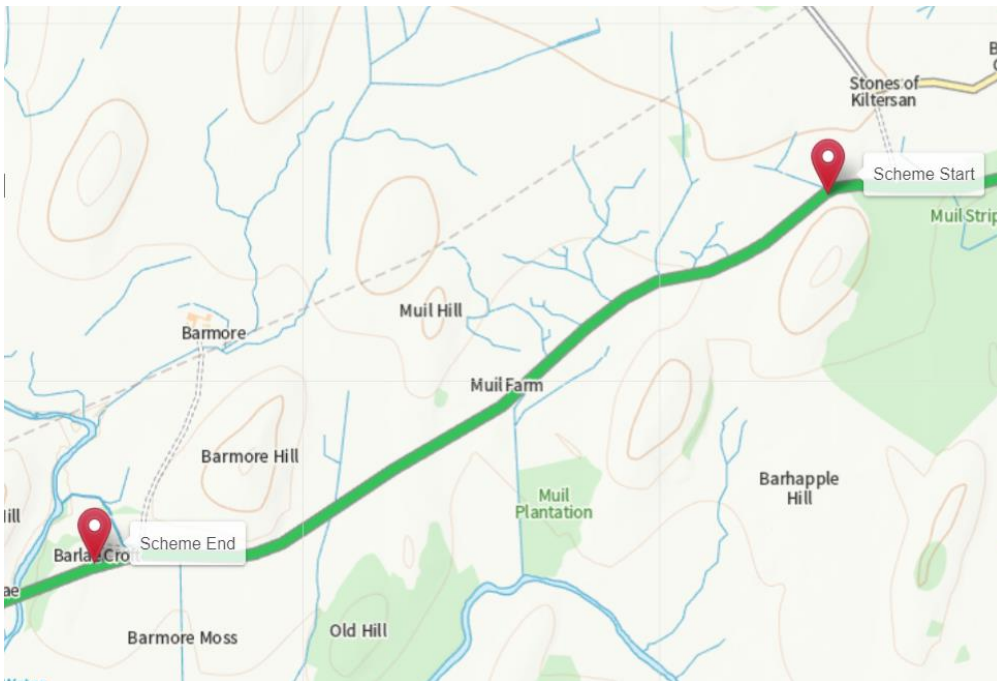


Figure 2 - Scheme Extents

## Description of local environment

### Air quality

The works are located on a rural stretch of the A75 carriageway, primarily surrounded by agricultural land. Two residential properties, Barlae Croft and Muil Farm, are located within the scheme extents, both directly adjacent to the carriageway.

The Annual Average Daily Traffic Flows (AADT, 2018) at this location is 4,390 approximately 19.9% of which consists of Heavy Goods Vehicles (HGVs).

No [Air Quality Management Areas](#) (AQMA) have been declared by Dumfries and Galloway Council.

### Cultural heritage

[PastMap](#) has identified 13 features noted on the Historic Environment Record and five Canmore features within 300m of the A75 within the proposed scheme extents. None of these features are found within the footprint of the A75.

The works will be limited to the existing man-made carriageway structure and are not currently expected to utilise a treatment depth beyond the existing pavement depth.

As a result of the lack of baseline features identified within the footprint of the proposed works, it has been determined that the proposed project does not carry the potential to cause direct or indirect impact to cultural heritage. As such, impact has been assessed as being 'no change' and has been scoped out of requiring further assessment.

### Landscape and visual effects

[NatureScot Sitelink](#) and [PastMap](#) have not identified any designated landscape features within proximity to the works.

Works will be like for like in nature and will not result in any lasting visual change. Views of and from the road will be temporarily impacted by the presence of traffic management, plant and vehicles during construction. This is predicted to be a slight temporary impact locally, with no permanent change to views following the completion of works.

As a result of the lack of baseline features identified, it has been determined that the proposed project does not carry the potential to cause direct or indirect impact to cultural heritage. As such, impact has been assessed as being 'no change' and has been scoped out of requiring further assessment.

## Biodiversity

The works are located within a rural environment, primarily surrounded by agricultural land. Minor areas of scrub vegetation can be found intermittently adjacent to both sides of the carriageway. A small area of managed broadleaf woodland, which joins onto a large area of plantation, is located approximately 40m east of the schemes starting location.

[NatureScot Sitelink](#) has identified the 'River Bladnoch' Special Area of Conservation (SAC) located approximately 200m west of the schemes end location.

Amey's Invasive Non-native Species Database has not identified any invasive plant species within the scheme extents.

Low lying agricultural fields dominate the surrounding habitat in proximity to the works. The area of broadleaf woodland is minor. Given the lack of suitable surrounding habitat coupled with a lack of recent roadkill, a site survey has been deemed unnecessary for the works.

## Geology and soils

The [National Soil Map of Scotland](#) has identified the surrounding local soils to consist of brown earths.

A desktop study using the [British Geological Survey Map](#) has identified major local geology type as the following:

### Bedrock

Gala Group - Wacke. Sedimentary bedrock formed approximately 428 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.

The works will be limited to the existing man-made carriageway structure and are not currently expected to utilise a treatment depth beyond the existing pavement depth.

As a result of the lack of baseline features identified and the nature of the proposed works, it has been determined that the proposed project does not carry the potential to cause direct or indirect impact to geology and soils. As such, impact has been assessed as being 'no change' and has been scoped out of requiring further assessment.

## **Material assets and waste**

### **Key Materials Required for Activities**

The following materials will be required for the works:

- TS2010 surface course
- AC32 base
- AC20 binder
- Bitumen
- Road paint
- Road studs

A proportion of reclaimed asphalt pavement (RAP) is used in asphalt production. Typical RAP values for base and binder are 10% -15% with up to 10% in surface course.

TS2010 Surface Course allows a wider array of aggregate sources to be considered when compared to typical SMA. As a result the use of TS2010 will reduce the usage of imported aggregates, and increase the use of a wider range of sustainable aggregate sources.

### **Key Waste Arising from Activities**

The following waste will be produced from the works:

- Road planings
- Old studs

No coal tar was identified within the core report.

All road planings generated as a result of the required works, will be fully recycled in accordance with the criteria stipulated within SEPA document 'Guidance on the Production of Fully Recoverable Asphalt Road Planings.

## Noise and vibration

The works are located on a rural stretch of the A75 carriageway. Two residential properties are located within the scheme extents, both directly adjacent to the carriageway.

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

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, 2018) at this location is 4,390 approximately 19.9% of which consists of Heavy Goods Vehicles (HGVs).

## Population and human health

Access to two residential properties, as well as local farmland access, is gained directly via the A75 within the scheme extents.

No non-motorised provisions or community facilities exist along the A75 within the scheme extents.

## Road drainage and the water environment

The Scottish Environmental Protection Agency's (SEPA) [Water Classification Hub](#) has identified the following waterbodies:

- Several unclassified drains/issues culverted directly below the carriageway;
- Tarf Water (u/s Bladnoch);
  - Located approximately 200m west of the works
  - SEPA has classified this waterbody as having an overall status of moderate, an ecological status of moderate and a chemical status of pass.

The [Indicative River & Coastal Flood Map](#) by SEPA has highlighted small areas of surface water flood risk within the scheme extents.

Road drainage is provided in the form of over-edge filter drains.



## 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<sub>2</sub> 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

### Air quality

#### Impacts

- The use of vehicles, plant and generators emitting carbon emissions may temporarily affect air quality and will require the use of finite resources.
- On site construction activities carry a potential to produce airborne particulate matter that may have a slight impact on local air quality levels.
- The implementation of a diversion route during the construction phase of this project may result in a temporary decrease to air quality along the diversion route.
- Impacts are however expected to be relatively minor due to the temporary nature of the diversion route, and this only being implemented during periods where traffic flows are anticipated to be significantly lower (nights / weekends).

#### Mitigation

- All works shall operate in accordance with current best practice as outlined in the Guidance on the assessment of dust from demolition and construction (2014) published by the IAQM, which includes the following mitigation relevant to this scheme:
  - When not in use plant and vehicles will be switched off; there will be no idling vehicles.
  - All plant and fuel-requiring equipment utilised during construction shall be well maintained in order to minimise emissions, as per manufacturing and legal requirements.
  - Green driving techniques will be adopted, and effective route preparation and planning shall be undertaken prior to works.
  - Planing operations will be wetted to reduce dust arising.
  - Drop heights to haulage vehicles and onto conveyors will be minimised.
  - Lorries will be sheeted when carrying dry materials.
  - Surfaces will be swept where loose material remains following planing.
- Works will be planned as efficiently as possible, to reduce temporary impacts during construction, both within the scheme extents and along the diversion route.

Providing all works operate in accordance with current best practice and the measures detailed above, the residual impact for air quality is considered to be 'no change', with a neutral significance.

## Biodiversity

### Impacts

- Protected species may be active in the wider area and have historically been recorded within the scheme extents.
  - Optimal habitat for potential breeding sites of protected species is however not anticipated to be present within the immediate proximity to the A75 within the scheme extents. As such, no disturbance impact to any breeding sites has been identified.
- Any protected species active within the surrounding area may experience a slight degree of disturbance due to construction noise.
- On-site lighting required during construction may cause disruption to nocturnal species in the area.
- In the event that an uncontrolled event was to occur, it could potentially lead to impact to the River Bladnoch SAC

### Mitigation

- A Habitat Regulations Assessment (HRA) Stage 1 Screening has been undertaken and has determined, that with standard industry operating practices being followed, the proposed works do not carry the potential to cause likely significant effect to the SAC.
- Operatives should remain vigilant for the presence of protected species within or near the works. If an animal is spotted, all works should temporarily halt until the animal has moved on. Any sightings should be reported to the E&S Team.
- Effects from noise should be kept to a minimum through the use of appropriate mufflers and silencers fitted to machinery. All exhaust silencers should be checked at regular intervals to ensure efficiency.
- Artificial site lighting should be kept directional to the works area and switched off when not in use.

Providing all works adhere to best practice and mitigation measures as detailed above, the impact to local biodiversity is predicted to be 'no change'.

## 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,
- The design life for the TS2010 surfacing proposed is estimated to be 20 years. This will reduce the requirement for maintenance to this section of road over the period.

## 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.
- Road planings generated will be recovered by a licenced contractor for reuse and / or recycling in accordance with the criteria stipulated within SEPA document 'Guidance on the Production of Fully Recoverable Asphalt Road Planings'.
- The chosen material TS2010 Surface Course allows a wider array of aggregate sources to be considered when compared to typical stone mastic asphalt (SMA). As a result, the use of TS2010 should reduce the usage of imported aggregates and increase the use of a wider range of sustainable aggregate sources.
- Operatives will be briefed with the Basic Waste Rules briefing.

It has been determined that the proposed scheme will have a negligible adverse impact to the consumption of material assets or waste.

## Noise and vibration

### Impacts

- The two residential properties that are located within close proximity to the A75 within the scheme extents may experience a level of disturbance during the planned night works.
- Through completion of this project, it is anticipated that there will be a reduced requirements for reoccurring routine maintenance due to the superior durability of TS2010.
- TS2010 road surfacing will be utilised, which should improve the skid resistance and reduce mid to high frequencies of traffic noise levels.

### Mitigation

- Dumfries and Galloway Council's Environmental Health Department have been notified of the works by the E&S Team.
- Residential properties in proximity will be notified in advance of the works, providing details of timings, nature, and duration of the works, as well as any potential access restrictions.
- Operatives will be briefed with the Amey in-house Noise and Vibration briefing before starting works.
- Effects from noise should be kept to a minimum through the use of appropriate mufflers and silencers fitted to machinery. All exhaust silencers should be checked at regular intervals to ensure efficiency.
- The noisiest works should be scheduled for before 11:00pm if feasible.

The residual impact throughout the duration of the works will be considered minor adverse throughout the works. The residual impact for population and human health is considered minor beneficial upon completion.

## Population and human health

### Impacts

- Residential and field accesses may be temporarily restricted due to the presence of works and / or traffic management.

### Mitigation

- Advanced warning signs should be put in place to notify drivers of the upcoming closures and diversion route.
- Residential properties in proximity should be notified in advance of the works, providing details of timings, nature, and duration of the works, as well as any potential access restrictions.
- Local access will be granted by site operatives as and when required.

Providing all works adhere to best practice and mitigation measures as detailed above, the residual impact for population and human health is considered negligible adverse.

## Road drainage and the water environment

### Impacts

- 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 A75 within the scheme extents, resulting in delays.

### Mitigation

- Spill kits will be readily available on site at all times, with all operatives appropriately trained in their use;
- 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.

Providing all works adhere to best practice and mitigation measures as detailed above, the impact to the water environment has been determined as negligible adverse.

## 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 have negligible adverse impacts to climate.

## Vulnerability of the project to risks

As the works will be limited to the like-for-like replacement of the carriageway pavement, there is no change to the vulnerability of the road to the risk or severity of major accidents/disasters that would impact on the environment.

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 cumulative effects

The [Scottish Road Workers Commission](#) Interactive Map does not highlight any other works in the area at the time of construction.

[Dumfries and Galloway Council's Planning Portal](#) does not highlight any proposed developments or planning applications within proximity to the A75 within the scheme extents.

Amey's current programme of works does not feature any nearby schemes which may result in a combined effect on nearby receptors, such as vehicular travellers and residential/sensitive properties.

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.

## Assessments of the environmental effects

The HRA Stage 1 Screening has determined that, with standard industry operating practices being followed, the proposed works do not carry the potential to cause likely significant effect to the River Bladnoch SAC.

This environmental assessment, as detailed within this Record of Determination, has determined that the project will not have any residual impact on the environment with appropriate mitigation measures being in place before and during construction.

Dumfries and Galloway Council were contacted on the 12th of May 2022 regarding the night works. No comments have been made.

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

This is a relevant project in terms of section 55A(16) of the Roads (Scotland) Act 1984 as it is a project for the improvement of a road and the completed works (together with any area occupied by apparatus, equipment, machinery, materials, plant, spoil heaps, or other such facilities or stores required during the period of construction) exceed 1 hectare in area.

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 are restricted to the 17,449m<sup>2</sup> (1.7ha) area of existing carriageway.
- Dumfries and Galloway Council were contacted on the 12<sup>th</sup> of May 2022 regarding the night works. No comments have been made.
- Materials will be derived from recycled, secondary or re-used origin as far as practicable within the design specifications.
- The chosen material TS2010 Surface Course allows a wider array of aggregate sources to be considered when compared to typical stone mastic asphalt (SMA).
- The design option (replacing the defective surfacing) conveys sustainability benefits by significantly reducing the quantity of maintenance interventions required at the location over approximately 20 years.

Location of the scheme:

- The scheme will be confined within the existing carriageway boundaries and as a result will not require any land take and will not alter any local land uses.
- The HRA Screening has determined that the works will have no likely significant effects on the River Bladnoch SAC situated approximately 200m from the works area.
- The scheme is not situated in whole or in part in a “sensitive areas” as listed under regulation 2 (1) of the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended).

Characteristics of potential impacts of the scheme:

- As the works will be limited to the like-for-like replacement of the carriageway pavement, there is no change to the vulnerability of the road to the risk or severity of major accidents/disasters that would impact on the environment.
- No 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.



## 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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