

**EC DIRECTIVE 2011/92/EU (as amended)**

**ROADS (SCOTLAND) ACT 1984 (Environmental Impact Assessment)  
Regulations 2017 (as amended)**

**RECORD OF DETERMINATION**

**Name of Project:**

A76 South of Mennock

**Location:**

The scheme is located south of Mennock, Dumfries and Galloway. National Grid Reference given are:

- Start of Scheme: NS 83163 06358
- End of Scheme: NS 81038 07818

The length of the scheme is approximately 2620m with an area of approximately 31,500m<sup>2</sup>.

**Description of Project:**

Resurfacing works are required on the A76 South of Mennock carriageway, as it is exhibiting signs of fretting and patched surface course along various points of the scheme extents. The works will involve an inlay treatment of 40mm, application of TS2010 at various points, over an approximate 26,200m stretch of the A76 carriageway. Total working area is estimated at 31,500m<sup>2</sup>.

The package of works are set to take place in April 2020 for the duration of approximately two weeks. Works will operate during daytime programming, between the hours of 07:00 and 19:00.

Traffic management arrangements will involve lane closures, facilitated with temporary two-way traffic lights and a convoy system.

Dumfries and Galloway Environmental Health Noise Team were consulted on 20<sup>th</sup> November 2019 regarding the proposed works. They did not have any comments or require specific mitigations.

Please see Appendix 1 for a Location Plan and Scheme Extents drawing.

**Description of Local Environment:**

The following baseline descriptions have been numbered to follow the appropriate DMRB chapters for environmental assessment and do not reflect a ranking of sensitivity.

1. Population and Human Health

**Description of Local Environment:**

The scheme falls within a rural setting south of Mennock village, Dumfries and Galloway. Residential property Dalpeddar is located approximately 70m from the southbound carriageway. Multiple residential properties exist in the wider proximity to the A76.

The A76 consists of dual and single carriageway within the study area. Two accesses exist at the northern extent of the scheme, leading to the local road network and areas of farmland. A railway track runs adjacent to the southbound carriageway for the full extent of the scheme, estimated at a distance of 35m from the carriageway.

A combined cycleway and footway is present adjacent to the southbound carriageway at the southern extent of the scheme, for a distance of 520m. There are no Core Paths listed within close proximity of the works location.

The A76 carriageway is the key trunk road connection between Dumfries and Kilmarnock. In 2018, vehicle count per day was 1,549, with an average of 19% heavy goods vehicles. As the scheme is located in a rural setting, the ambient noise level is likely to be influenced by vehicle traffic from the carriageway, adjacent train line and various farmland activities.

The scheme does not fall within a Candidate Noise Management Area (CNMA) as defined by the Transportation Noise Action Plan, Road Maps<sup>1</sup>.

2. Biodiversity

The scheme is located along the A76 carriageway within a rural area of Dumfries and Galloway, surrounded by farmland and woodland. The River Nith flows directly adjacent to the northbound carriageway, for the full length of the scheme.

A desktop study using Nature Scot Sitelink Online Interactive Map has identified the following designated sites both located approximately 230m northwest of the northern extents:

- Site Name (1): Upper Nithsdale Woods
  - Designation: Special Area of Conservation (SAC) (site code: 1147)
  - Features: Mixed woodland on base-rich soils associated with rocky slopes<sup>2</sup>
- Site name (2): Mennock Water
  - Designation: Site of Special Scientific Interest (SSSI) (site code: 8405)
  - Features: Fen meadow, Upland oak woodland<sup>3</sup>

The NBN Atlas (2008-2020)<sup>4</sup> holds records of Red Squirrel *Sciurus vulgaris* within 2km of the works.

The Scotland TranServ Animal Roadkill Database (2000 – 2020) does not hold record of any protected species roadkill within proximity of the scheme extents.

Scotland TranServ's Invasive Non-native Species Database (INNS) did not identify any INNS within, or within close proximity to, the scheme extents.

Field Survey

<sup>1</sup> <https://noise.environment.gov.scot/pdf/Major%20Road%20Maps.pdf> (Accessed 20/01/2020)

<sup>2</sup> <https://sitelink.nature.scot/site/8405> (Accessed 20/01/2020)

<sup>3</sup> <https://sitelink.nature.scot/site/1147#features> (Accessed 20/01/2020)

<sup>4</sup> [https://records.nbnatlas.org/explore/your-area#55.106409|-3.579701|12|ALL\\_SPECIES](https://records.nbnatlas.org/explore/your-area#55.106409|-3.579701|12|ALL_SPECIES) (Accessed 20/01/2020)

<b>Description of Local Environment:</b>	
<p>An ecological survey was carried out on the 15th November 2019 to determine the requirement for protected mammal species licensing prior to construction under the Wildlife and Countryside Act 1981, the Nature Conservation (Scotland) Act 2004, the Conservation (Natural Habitats, &amp;c.) Regulations 1994, and Wildlife and Natural Environment (Scotland) Act 2011.</p> <p>The surveyed areas consisted of a mix of dense and sparse vegetation, comprising of shrubbery and trees. The River Nith within the study area was also surveyed. No evidence of protected species (badger, otter or red squirrel) activity or shelter were observed within the surveyed areas. The lack of evidence however does not preclude the existence of protected species from the area.</p>	
3.	<p><b>Land</b></p> <p>The trunk road footprint consists of dual and single carriageway throughout the scheme extents. Road verges are vegetated with trees and low lying grass, which expand into agricultural land and areas of woodland.</p>
4.	<p><b>Soil</b></p> <p>The scheme is not located within, or within proximity to, any Local Geodiversity Sites (formerly known as RIGS)<sup>5</sup> or geologically designated SSSIs<sup>6</sup>.</p> <p>A desktop study using the British Geological Survey Map<sup>7</sup> has identified local geology types as the following:</p> <ul style="list-style-type: none"> <li>• <b>Bedrock Geology</b> <ul style="list-style-type: none"> <li>- Portpatrick Formation - Wacke. Sedimentary Bedrock formed approximately 449 to 458 million years ago in the Ordovician Period. Local environment previously dominated by deep seas. These sedimentary rocks are marine in origin. They are detrital and comprise coarse- to fine-grained slurries of debris from the continental shelf flowing into a deep-sea environment, forming distinctively graded beds</li> </ul> </li> <li>• <b>Superficial Deposits</b> <ul style="list-style-type: none"> <li>- Glaciofluvial Deposits – Gravel and Sand. Deposits formed up to 3 million years ago in the Quaternary Period. Local environment previously dominated by ice age conditions. These sedimentary deposits are glaciofluvial in origin. They are detrital, generally coarse-grained, they form beds, channels, plains and fans associated with meltwater.</li> </ul> </li> </ul> <p>The National Soil Map of Scotland<sup>8</sup> has identified the soils within the scheme extent to consist of brown earths.</p>
5.	<p><b>Water</b></p> <p>The River Nith flows adjacent to the scheme extents, at a distance of approximately 30m south at its closest point to the A76 carriageway. SEPA has classified the River Nith (ID: 10610) with an overall status of moderate, ecological status of moderate and chemical status of fail<sup>9</sup>.</p>

<sup>5</sup> <https://www.google.com/maps/d/viewer?mid=1HfclRWclTRxXUZWnARManI-PUhE&ll=57.74680670722851%2C-5.313263556249922&z=6> (Accessed on 21/01/2020)

<sup>6</sup> <https://gateway.snh.gov.uk/sitelink/searchmap.jsp> (Accessed on 21/01/2020)

<sup>7</sup> <http://mapapps.bgs.ac.uk/geologyofbritain/home.html?location=GLASGOW&qobBtn=go> (Accessed on 21/01/2020)

<sup>8</sup> [http://map.environment.gov.scot/Soil\\_maps/](http://map.environment.gov.scot/Soil_maps/) (Accessed on 21/01/2020)

<sup>9</sup> <https://www.sepa.org.uk/data-visualisation/water-classification-hub/> (Accessed 22/01/2020)

**Description of Local Environment:**

Mennock Water (ID: 10620) which shares connectivity with River Nith flows below the A76 carriageway, approx. 300m from the start of the scheme. SEPA has classified Mennock Water with an overall status of good, ecological status of good and chemical status of pass.

Multiple Issues flow below and adjacent to the carriageway, out falling into River Nith. Brewster's Burn (unclassified) is also channelled below the A76 carriageway within the study area.

SEPA Flood Maps does not identify the A76 within the study area as situated in an area at risk of flooding. However, the wider environment is at risk of river flooding due to the presence of the River Nith nearby<sup>10</sup>. Surface water is managed by filter drains running adjacent to both south and northbound carriageways.

**6. Air**

The scheme is located south of Mennock. The A76 is the main route connecting neighbouring towns, and as such air quality is likely to be affected by the daily use of the carriageway by road vehicle users.

The length of the scheme has no provision of on-street lighting, therefore, power generated tower lights will likely be utilised as a source of light along the stretch of the scheme.

Dumfries and Galloway Council have yet to declare any Air Quality Management Areas<sup>11</sup>.

**7. 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 CO2 emissions by 80% before 2050 (from the baseline year 1990).

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

In addition, Scotland TranServ undertakes resource efficiency activities to manage and reduce emissions contributing to climate change. Actions and considerations for this scheme are detailed in section 8 Material Assets.

**8. Material Assets**

Activity	Material Required	Origin/ Content
Site Construction	<ul style="list-style-type: none"> <li>● TS2010 Surface Course</li> <li>● Road paint</li> <li>● Road studs</li> <li>- Pre-set concrete kerbing</li> </ul>	<p>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.</p> <p>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</p>

<sup>10</sup> <http://map.sepa.org.uk/floodmap/map.htm> (Accessed 22/01/2020)

<sup>11</sup> <http://www.scottishairquality.scot/laqm/agma?id=375> (Accessed on 22/01/2020)

<b>Description of Local Environment:</b>		
		aggregates, and increase the use of a wider range of sustainable aggregate sources <sup>12</sup> .
All materials will be procured in accordance with Balfour Beatty Sustainable Procurement Policy.		
<u>Key Waste Arising from Activities</u>		
Activity	Waste Arising	Disposal/ Regulation
Site Construction	<ul style="list-style-type: none"> <li>Road planings</li> </ul>	Road planings are fully recycled in accordance with Guidance on the Production for Fully Recovered Asphalt Road Planings.
<p>9. Cultural Heritage</p> <p>PastMap<sup>13</sup> does not highlight any features of cultural heritage within proximity of the works.</p>		
<p>10. Landscape</p> <p>The stretch of the A76 carriageway does not fall within any designation for landscape quality or character.</p>		

<b>Description of the main environmental impacts of the project and proposed mitigation:</b>	
The following environmental impacts have been numbered to follow the appropriate DMRB chapters for environmental assessment and do not reflect a ranking of impact severity. Construction and operational impacts, including impact on Policies and Plans, are covered within each environmental topic heading where applicable.	
1. Population and Human Health	
1.1 Impacts	<ul style="list-style-type: none"> <li>Given the large scale of the scheme, residential properties within 100m and wider area of the works may experience a degree of disruption.</li> <li>The footpath/cycleway adjacent to the southbound carriageway and accesses may be temporarily obstructed due to the works.</li> <li>Traffic management arrangements may cause slight disruptions to road users.</li> <li>TS2010 road surfacing will be utilised, which should improve the skid resistance and reduce mid to high frequencies of traffic levels;</li> <li>Traffic noise levels may reduce post construction, due to improved surfacing with low noise material.</li> </ul>
1.2 Mitigation	<ul style="list-style-type: none"> <li>Residential properties in close proximity to the A76 where works are due to take place, those with access directly connected with the A76 and any other properties considered at risk of</li> </ul>

<sup>12</sup> Transport Scotland TS2010 Surface Course Specification and Guidance Issue 04, 2018 (as amended)

<sup>13</sup> <https://pastmap.org.uk/> (Accessed on 20/01/2020)

<b>Description of the main environmental impacts of the project and proposed mitigation:</b>	
<p>disturbance during the works, will be given advance notice of the works, detailing the nature, timing and traffic management arrangements.</p> <ul style="list-style-type: none"> <li>• When required measures will be put in place to allow pedestrians/cyclists of all abilities to safely by-pass the works.</li> <li>• Any local access requirements within the scheme extents shall be granted by site operatives.</li> <li>• Advance traffic warning signs shall be placed, in order to inform road users of temporary traffic management arrangements.</li> </ul> <p>Given the large scale of the works and with mitigation measures in place, the residual impact to population and human health during construction is considered slight. The like-for-like nature of the permanent effect is considered to be neutral.</p>	
2.	<p><b>Biodiversity</b></p> <p>2.1 Impacts</p> <ul style="list-style-type: none"> <li>• There is potential for protected species such as otters to be active in this area, however no direct or indirect impact is foreseen given the lack of evidence present.</li> <li>• As the works will have no direct impact on the habitat within the SAC / SSSI, and given the distancing to the works location, the scheme is unlikely to adversely impact the Natura Sites.</li> </ul> <p>2.2 Mitigation</p> <ul style="list-style-type: none"> <li>• It is an offence to intentionally kill, injure or take (capture) a protected species; Operatives will be vigilant for potential presence of protected species. If a protected species is sighted within proximity to the works location, work will be temporarily suspended, until it has moved on. Any sightings will be reported to the Environmental and Sustainability team.</li> <li>• On site light sources will be kept to a minimum, and only used as required. When in use, any artificial light should be pointed down and directed at the area of works as far as reasonably practicable, reducing any light spill into the wider surroundings including to nearby sensitive areas.</li> </ul> <p>Residual impact to biodiversity is considered neutral.</p>
3.	<p><b>Land</b></p> <p>The works will be kept to the boundary of the trunk network and will not require any access on or over any private land out with this boundary.</p>
4.	<p><b>Soil</b></p> <p>The works will be kept to the existing carriageway and soils shall not be impacted.</p>
5.	<p><b>Water</b></p> <p>5.1 Impacts</p> <ul style="list-style-type: none"> <li>• Debris and dust created through construction activities, may impact water quality, if allowed to enter the drainage system.</li> <li>• Potential for spills, leaks or seepage of fuels and oils associated with plant to escape and reach drainage systems and watercourses, if not controlled.</li> </ul> <p>5.2 Mitigation</p>

**Description of the main environmental impacts of the project and proposed mitigation:**

- Spill kits will be available and replenished on site at all times.
- Debris and dust generated through the works will be prevented from entering top entry gullies and nearby watercourses;
- Visual pollution inspections of the working site (particularly areas near drainage) shall be conducted in frequency, especially during periods of heavy rain or wind;
- Weather reports shall be monitored prior and during all construction activities. In the event of adverse weather / flooding events, all activities shall temporarily stop, and only reconvene when deemed safe to do so, and run-off / drainage can be adequately controlled to prevent pollution.
- Best practice will include but not limited to the placement of spill drip trays and use of funnels when refuelling plant/equipment.

The residual impact for water is considered neutral.

6. Air

6.1 Impacts

- The use of vehicles and plant emitting carbon emissions may temporarily affect air quality and will require the use of finite resources.
- Diesel powered tower lights may be used at the start or at the end of the working day, in order to illuminate the stretch of the carriageway, thus emitting greenhouse gas emissions when in use and potential for spillages when refuelling.
- On site construction activities carry a potential to produce airborne particulate matter that may have a slight temporary impact on local air quality levels.

6.2 Mitigation

- If possible and only if deemed as safe to do so, the necessary number of tower lights will be effectively positioned to illuminate the whole scheme, rather than placing several tower lights within the scheme extents, this will reduce the risk of spillages and greenhouse gas emissions emitted;
- Best practice measures will to be adopted for the duration of the scheme. Best practices measures can include but not limited to:
  - Vehicle and plant servicing/checks as per manufacturing and legal requirements;
  - Adoption of drive green techniques;
  - Route preparation and planning.
  - When not in use plant and vehicle will be switched off.

No likely significant residual effects are predicted to air quality.

7. Climate

7.1 Impacts

- Greenhouse gas emissions will be emitted through the use of machinery, vehicles and materials used (containing recycled and virgin materials).

7.2 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.

**Description of the main environmental impacts of the project and proposed mitigation:**

- All works shall operate in accordance with current best practice, as demonstrated by Scotland TranServ's Risk Control Measures.
- Further actions and considerations for this scheme are detailed in section 8 Material Assets.

The proposed works have been assessed as having no likely significant residual effects on climate.

**8. Material Assets**

**8.1 Impacts**

- Contribution to resource depletion through use of virgin materials.

**8.2 Mitigation**

- 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). 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.
- Waste will follow the hierarchy and be reduced, reused and recycled as far as possible.
- Road planings generated will be recovered by a licenced contractor for reuse and / or recycled in accordance with the criteria stipulated within SEPA document 'Guidance on the Production of Fully Recoverable Asphalt Road Planings'.

The proposed works have been assessed as having no likely significant effects on material assets.

**9. Cultural Heritage**

The works will be restricted to the like-for-like replacement of the existing structure. The scheme does not fall within proximity to features of cultural value.

**10. Landscape**

The stretch of the A76 does not fall within any designation for landscape quality or character.

Views of, and from, the road will be temporarily affected during construction due to the presence of works, traffic management and plant. As the works are operating on a like-for-like basis, no permanent changes to landscape features are predicted.

**11. 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.

**Extent of EIA work undertaken and details of consultation:**

The following environmental parameters have been considered within this Record of Determination:

- Population and Human Health
- Biodiversity



**Extent of EIA work undertaken and details of consultation:**

- Land
- Soil
- Water
- Air
- Climate
- Material Assets
- Cultural Heritage
- Landscape

The following statutory organisations have been consulted:

- Dumfries and Galloway Council Environmental Health Noise Team have been notified – on 20/11/2019.

The following environmental surveys / reviews have been undertaken:

- A design Initial Environmental Review of the scheme, undertaken by the Environmental and Sustainability Team at Scotland TranServ issued in November 2019.
- The site was surveyed for the presence of any protected species or invasive non-native species, under the Wildlife and Countryside Act 1981, the Nature Conservation (Scotland) Act 2004, the Conservation (Natural Habitats, &c.) Regulations 1994, Wildlife and Natural Environment (Scotland) Act 2011 and Protection of Badgers Act 1992.
- The planned structural maintenance works will address road surface defects, constituting a like for like replacement of the existing surface. Due to the lack of environmental effect associated with this like for like activity and distance of 230m from the Natura site Upper Nithsdale Woods it has been determined that there is no likely significant effect to the integrity of the site, qualifying interests or conservation objectives under the Habitats Regulations. It is therefore not necessary for a Habitats Regulations Appraisal to be undertaken in advance of maintenance works.

**Statement of case in support of a Determination that a formal EIA and Environmental Impact Assessment Report is not required:**

This is a relevant project falling within Annex II that:

The project covers an area of over 1 hectare.

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). Screening using Annex III criteria, reference to consultations undertaken and review of available information has identified there is no need for a full 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 31,500m<sup>2</sup> / 3.15 ha area of existing carriageway.
- 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 SMA.
- Road planings will be fully recycled in accordance with Guidance on the Production for Fully Recovered Asphalt Road Planings.
- With good practice pollution prevention measures implemented onsite, there is a negligible risk of a pollution event or significant nuisance.

*Location of the scheme:*

- The A76 resurfacing scheme is located within a wide rural river valley setting with pastoral farmland, scattered woodland and rolling hills beyond.
- Field surveys have not identified any protected species shelters within the study area.
- The scheme is not located within or directly adjacent to any “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:*

- The works will be limited to the like-for-like replacement of the carriageway pavement.
- No change is predicted to the vulnerability of the road to the risk or severity of major accidents / disasters.
- No significant impacts are predicted during works. Disruption due to construction will be mitigated as far as is reasonably practicable.
- No significant impacts are predicted as a result of resurfacing of the A76. The successful completion of the scheme will afford benefits to road users by way of improved road surfacing.
- The use of TS2010 road surfacing affords the benefits of a reduction in mid to high frequencies of traffic noise and a reduction in ground vibrations. As a result, ambient noise levels may decrease post construction.

**File references of supporting documentation:**

Appendix 1 – Scheme location and extents

APPENDIX 1: SCHEME LOCATION AND EXTENTS

