



**TRANSPORT
SCOTLAND**
CÒMHDHAIL ALBA

transport.gov.scot

Record of Determination

A77 Bennane to Pebbles Spa

Contents

Project Details	4
Description	4
Location	4
Description of Local Environment	5
Population and Human Health	5
Biodiversity	5
Field Survey	6
Land	6
Soil	6
Water	6
Air	6
Climate Change	6
Material Assets	7
Waste	7
Cultural Heritage	7
Description of Main Environmental Impacts and Proposed Mitigation	8
Population and Human Health	8
Impacts	8
Design Mitigation and Regulatory Requirements	8
Site Specific Control Measures	8
Biodiversity	8
Impacts	8
Design Mitigation	8
Site Specific Control Measures	8
Land	9
Soil	9
Water	9
Impacts	9
Site Specific Control Measures	9
Air	10
Impacts	10
Mitigation	10
Climate Change	10
Impacts	10
Mitigation	10

Material Assets.....	10
Impacts.....	10
Mitigation.....	10
Circular Economy.....	11
Waste.....	11
Impacts.....	11
Mitigation.....	11
Cultural Heritage.....	11
Vulnerability of the Project to Risks.....	11
Cumulative Effects.....	11
Assessments of the Environmental Effects.....	11
Statement of case in support of a Determination that a statutory EIA is not required.....	12
Annex A.....	14

Project Details

Description

This scheme is required to improve the ride and quality of this section of the A77 carriageway, this section is currently showing localised alligator cracking throughout scheme as well as localised potholing and exposed joints.

Works will involve carriageway surface reconstruction utilising TS2010. Exact treatment depths have yet to be confirmed. Construction activities for this scheme will involve:

- Milling of existing bituminous material by road planer;
- Additional bituminous material removed by jack hammer where not accessible by planer;
- Road sweeper to collect any loose material;
- HGV for removal and replacement of material;
- Tack/bond coat laid;
- New bituminous material laid by a paver;
- Material compacted using a heavy roller; and,
- Road markings and studs will be applied where necessary.

These works are programmed to take place from 10th-24th September 2021 and works will be carried out continuously.

Traffic Management (TM) for this scheme will involve lane closure facilitated convoy (08:00 - 20:00) then 20:00 - 08:00 temporary traffic lights.

Location

The scheme is located on a rural section of the A77 approximately 2.3km south of Lendalfoot, South Ayrshire. The National Grid Reference is:

- Scheme start – NX 09823 86691
- Scheme end - NX 11263 88569

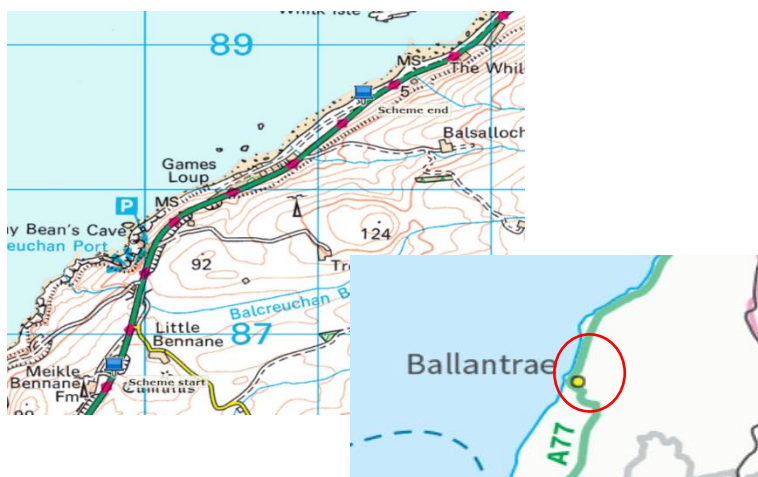


Figure 1 - Scheme Location

Description of Local Environment

Population and Human Health

There are a number of residential properties in close proximity to the scheme extents, the closest being adjacent to the carriageway at Bennane Shore Holiday Park. Meikle Farmhouse sits approximately 40m west of the scheme start, Little Bennane sits 150m east of the carriageway. As well as this Gamesloup Cottages sit approximately 60m west of the carriageway towards the scheme end.

There are a number of accesses within the scheme extents, leading to the local road network and residential properties.

There are no Core Paths, footpaths, cycleways or bridleways within the scheme extents.

The scheme does not fall within a Candidate Noise Management Area ([CNMA](#)).

Biodiversity

Farmland flanks the scheme to the east while a mixture of farmland, the Girvan water and Bennane Shore Holiday Park to the west.

A desktop study using [SiteLink](#) has identified the following designated sites:

- Bennane Head Grasslands Site of Special Scientific Interest (SSSI)
 - Adjacent to the southbound carriageway in the middle of the scheme as well as approx. 370m south of the scheme start,
- Girvan to Ballantrae Coast Section SSSI
 - Adjacent to the Northbound carriageway,
- Lendalfoot Hills Complex Special Area of Conservation (SAC)
 - Approx. 1.8km east of scheme

- Littleton and Balhamie Hills SSSI
 - Approx. 1.8km east of scheme

The Amey Animal Roadkill Database (2000 – 2021) and Invasive Non-Native Species (INNS) databases hold no records in this area.

Field Survey

Due to the lack of suitable habitat for protected species shelter and lack of evidence of them a field survey has been deemed unrequired.

Land

The A77 is a main route between Glasgow and Stranraer. This scheme runs through a rural section of the route with farmland flanking the scheme to the east while a mixture of farmland, the Girvan water and Bennane Shore Holiday Park exists to the west.

Soil

Works will be restricted to the existing carriageway, however the surrounding [soil](#) type is Noncalcareous gleys and does not fall within a Geographical Conservation Area.

Water

Girvan Water exists approximately 100m from the scheme at the closest point. This was given an overall status of 'Good' by the Scottish Environment Protection Agency ([SEPA](#)).

Balchreuchan Burn (unclassified by SEPA) and an unclassified issue flows under the scheme carriageway within the scheme extents. Bennane Burn (unclassified by SEPA) flows just to the south of the scheme start.

Air

The Annual Average Daily Flow ([AADF](#)) of traffic in 2020 for this section of road is recorded as 2,730 with 501 of these being Heavy goods vehicles.

The main sources of pollution in this area will come from the carriageway itself as well as the local agricultural practices.

South Ayrshire Council have not declared an Air Quality Management [Area](#).

Climate Change

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).

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.

Material Assets

Table 1 – Construction materials

Key Materials Required for Activities		
Activity	Material Required	Origin/ Content
Site construction	<ul style="list-style-type: none"> • Road paint/studs • TS2010 Road surfacing • Binder 	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 .

Waste

Table 2 – Site waste materials

Key Waste Arising from Activities		
Activity	Waste Arising	Disposal/ Regulation
Site Construction	<ul style="list-style-type: none"> • Road planings • Road paint/studs 	Uncontaminated 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 . Further on-site investigations of the carriageway condition have shown no tar present in core samples.

Cultural Heritage

There are no features of cultural heritage that will be affected by works.

Description of Main Environmental Impacts and Proposed Mitigation

Population and Human Health

Impacts

- If night works are required the residential properties and holiday park may experience a level of disturbance.
- Accesses may be blocked by works.

Design Mitigation and Regulatory Requirements

The E&S team contacted South Ayrshire Council's Environmental Health Team on 23/08/2021 to notify them of these night works.

Site Specific Control Measures

- Highlighted properties on the notification map should receive a letter drop prior to works starting by detailing the work timings.
- If access is blocked by works then local access should be granted by site operatives.
- Plant/machinery will be fitted with silencers and mufflers.
- Plant/vehicles will not be left idling when not in use.
- Site operatives will not raise their voices on site.
- TM will involve a convoy during the day and traffic signals through the night.

Provided that best practice and mitigation measures are followed the residual impact is deemed neutral.

Biodiversity

Impacts

- There is a small chance of roadside verges being impacted by the works.

Design Mitigation

- Works will be restricted to the carriageway footprint.

Site Specific Control Measures

- Oil, fuels and other potential pollutants or poisonous materials should be stored safely on site in a fully bunded area.
- Equipment and materials will be stored on the existing carriageway footprint whenever possible.
- If there is any damage to road verges, they will be reinstated.

- Site operatives will be made aware of the designated sites close by.

Provided best practice and mitigation measures are followed the residual impact is deemed neutral.

Land

The works will be kept to the existing A77 carriageway boundary and will not require access to private or community land. Plant, materials and any temporary storage will be kept to the made carriageway surface only.

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

Soil

As works are restricted to the existing carriageway footprint there is no impact on soil predicted.

Water

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 fuel/chemical spillages through the use of various plant and vehicles, which may adversely impact the water environment.

Site Specific Control Measures

- Appropriate measures, as detailed in the Guidance for Pollution Prevention (GPP) 1 and 5 issued by [NetRegs](#), should be implemented to prevent pollution to the natural water environment (e.g. debris, dust sand and hazardous substances) via entering nearby drains.
- Visual pollution inspections of the working area must be conducted in frequency, especially during heavy rainfall and wind;
- Debris and dust generated as a result of the works must be prevented from entering the drainage system. This can be via the use of drain covers or similar;
- Weather reports should be monitored prior to and during the works with all construction activities temporarily halting in the event of adverse weather/flooding event. The works should only continue when it is deemed safe to do so and run-off/drainage can be adequately controlled to prevent pollution.

Provided mitigation is followed the residual impact of works on the water environment is deemed neutral.

Air

Impacts

- On site construction activities carry a potential to produce airborne particulate matter that may have a slight temporary impact on local air quality levels.

Mitigation

- Plant should be maintained in accordance with manufacturers advice.
- Delivery vehicles carrying materials must be covered to prevent spread of dust.
- Plant should not be left to idle and all machinery should be switched off when not in use.
- Dust suppression should be available on site if required.

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

Climate Change

Impacts

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

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.

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

Material Assets

Impacts

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

Mitigation

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

- 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.

Circular Economy

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.

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

Waste

Impacts

- Transportation and recovery of planings will require energy deriving from fossil fuel,
- Limited quantity of waste from sweeping will arise requiring disposal.

Mitigation

- 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'.
- Road sweeping waste will be treated at a licenced facility to separate useful materials such as stone/aggregate as far as reasonably practicable, recovering this waste and diverting it from landfill.

Cultural Heritage

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

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 impacts on the environment.

Cumulative Effects

There are no other works taking place in the same area at the same time which may contribute to effects on the local environment.

Assessments of the Environmental Effects

Provided that mitigation measures and best practice are followed the impact from the scheme is deemed neutral.

The E&S team contacted South Ayrshire's Environmental Health Team on 23/08/2021 to notify them of the night works.

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 and are not situated in whole or in part in a sensitive area within the meaning of regulation 2(1) of the Environmental Impact Assessment (Scotland) Regulations 1999.

The project has been subject to screening using the Annex III criteria to determine whether a formal Environmental Impact Assessment is required under the Roads (Scotland) Act 1984 (as amended by The Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017). Screening using Annex III criteria, reference to consultations undertaken and review of available information has not identified the need for a statutory EIA.

The project will not have significant effects on the environment by virtue of factors such as:

Characteristics of the scheme:

- Construction activities are restricted to the area of approximately 30,000m² 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.
- 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 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).

- There will be no ISE on the sensitive sites in close proximity to the works.

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.
- The successful completion of the scheme will afford benefits to road users.
- 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 should decrease post construction.

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.



**TRANSPORT
SCOTLAND**
CÒMHDHAIL ALBA

© Crown copyright 2021

You may re-use this information (excluding logos and images) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit <http://www.nationalarchives.gov.uk/doc/open-government-licence> or e-mail: psi@nationalarchives.gsi.gov.uk

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Further copies of this document are available, on request, in audio and visual formats and in community languages. Any enquiries regarding this document / publication should be sent to us at info@transport.gov.scot

This document is also available on the Transport Scotland website: www.transport.gov.scot

Published by Transport Scotland, September 2021

Follow us:



transport.gov.scot



Scottish Government
Riaghaltas na h-Alba
gov.scot