transport.gov.scot

TRANSPORT SCOTLAND
CÒMHDHAIL ALBA

Environmental Impact Assessment Record of Determination

A77 Kilantringan to Smyrton (Phase 1 & 2)

Contents

Project Details

Description

The works are required to maintain the safety and integrity of the A77 carriageway at Smyrton, South Ayrshire. This section of carriageway is currently exhibiting various areas of cracking, crazing and potholes, as well as wear and tear of road markings, missing road studs, channels and edgings.

The scheme will be split into two phases (Phase 1 & Phase 2) due to its length.

Works will involve carriageway resurfacing utilising TS2010 surface course to varying depths dependent on condition, ranging from 40mm to 100mm across the length of the scheme.

The proposed construction activities for resurfacing will involve the following:

- 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;
- Heavy Goods Vehicle (HGV) for removal and replacement of material; and
- Road markings replaced using an extrusion tool.

Materials required for works are:

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

The total area of works is approximately 24,000m^2 (2.4ha) across both sides of the single lane carriageway.

The construction is programmed to be undertaken and completed within the 2025-2026 financial year, proposed for February 2026. A contraflow system will be in place 24/7 with works undertaken during day and nighttime working hours for approximately 10 days each phase.

Location

The works are located on the A77 carriageway, South Ayrshire just south of Ballantrae. The scheme is split into Phase 1 and 2. The National Grid References (NGR) for the works locations are detailed below and illustrated in Figure 1:

- Phase 1 Scheme Start- NX 09461 78996
- Phase 1 Scheme End- NX 10050 80380
- Phase 2 Scheme Start- NX 10054 80391
- Phase 2 Scheme End- NX 09202 81123

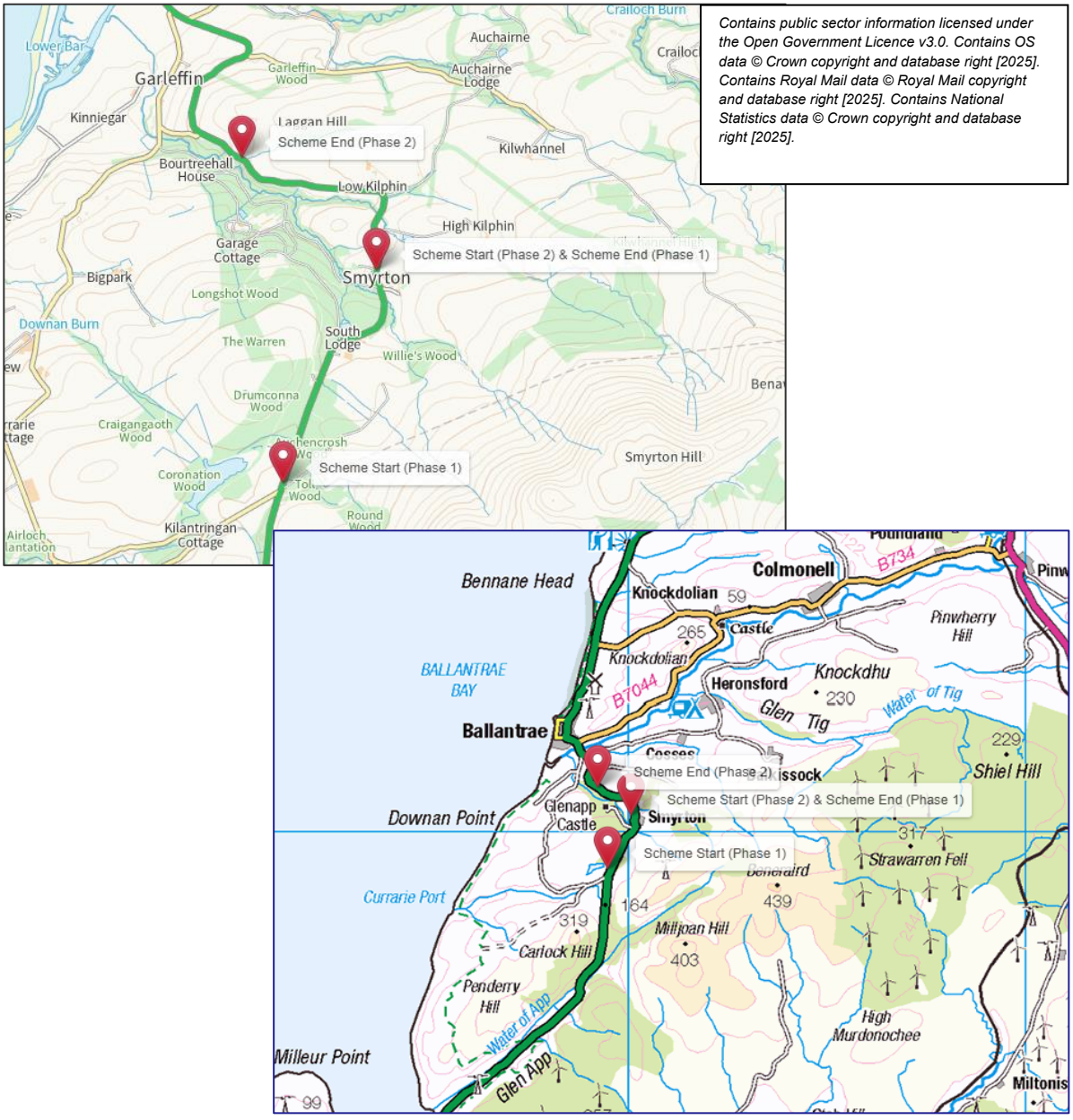

Figure 1. Scheme Location.

Description of local environment

Air quality

The scheme is situated in a rural area of South Ayrshire, where the surrounding landscape primarily comprises agricultural land interspersed with small woodland patches.

There are approx. 18 residential properties within 200m of Phase 1 works, with the nearest property, South Lodge, located approx. 1m from the A77 on the northern side of the carriageway.

Approximately 15 residential properties lie within 200m of the Phase 2 works, with the closest being 8 New Smyrton located approx. 10m east of the works along the A77 carriageway. Glenapp Castle Hotel is located approx. 200m south of the works.

The primary factor affecting baseline air quality is traffic along the A77 road network, with agricultural activities contributing as a secondary source.

The Average Annual Daily Flow (AADF) in 2024 for the main A77 carriageway just south of the scheme extents (site no. 752), accounted for 3,406 vehicles, with 695 of these being HGVs.

South Ayrshire Council has not yet declared any Air Quality Management Areas (AQMA). No real-time air quality monitoring stations are present within 200m of the scheme extents.

The Scottish Pollutant Release Inventory (SPRI) has not identified any polluting facilities within 1km of the scheme extents.

Cultural heritage

For the area of Phase 1 works, Scotland's Environment mapping resource and Pastmap has not identified any designated culturally significant assets within 300m. However, the following non-designated culturally significant assets within 100m:

- Glenapp Estate Forestry, South Ayrshire (Ref- 6272) Historic Environment Record (HER) is located adjacent to the A77 carriageway on the east side of the carriageway south of Smyrton.
- Stranraer, Ballantrae Military Road (Ref- 42152) HER, is located beneath the A77 carriageway within the scheme extents.
- Glenapp Castle, South Lodge (Ref- 42961) HER, is located approx. 1m from the A77 located on the northern side of the carriageway.

For the Phase 2 works area, Scotland's Environment mapping resource and Pastmap has identified the following designated culturally significant asset within 300m:

- Glenapp Castle (Ref- LB856) Category B listed building, Located approx. 200m south of the works.

Additionally, the following It has also identified the following non-designated culturally significant assets within 100m:

- Glenapp Castle, Smyrton, New Smyrton, Houses (Ref- 8854) HER, Houses within the village of Smyrton.
- Stranraer, Ballantrae Military Road (Ref- 42152) HER, is located beneath the A77 carriageway within the scheme extents.
- Glenapp Estate Forestry, South Ayrshire (Ref- 6272) HER, located directly west of the A77 carriageway north of Smyrton.

Landscape and visual effects

Landscape

Phase 1 and 2 works are situated in a rural area of South Ayrshire, where the surrounding landscape primarily comprises, agricultural land interspersed with small woodland patches.

Scotland's Landscape Character Type Map lists the landscape character type present within Phase 1 and 2 scheme extents to be 'Coastal Farmland and Policies'.

Scotland's Historic Land-Use Map lists the land surrounding the scheme extents as rectilinear farms and fields.

The Glenapp Garden and designed landscape is located directly west of the A77 carriageway (Scotland's Environment Mapping Resource).

No trees under a Tree Preservation Order (TPO) have been identified within 300m of the scheme extents.

Scotland Ancient Woodland Inventory has identified three areas of ancient woodland within 500m of Phase 1 works which are:

- Auchencrosh Wood (ID-37008) which is an area of long-established plantation woodland located directly west of the A77 carriageway.
- An unnamed woodland with ID-37177, which is an area of long-established plantation woodland is located directly north east of the works.
- Willies Wood (ID-37107) which is an area of long-established plantation woodland located approx. 160m south east of the works.

Visual

South Ayrshire Council has identified core path ID- SA63, which crosses over the A77 carriageway within the Phase 1 scheme extents at Smyrton, and will have visibility of the works. No Core Paths have been identified within Phase 2 scheme extents.

Transient visual receptors include road users (motorists, public transport users) travelling along the A77, who will experience brief and intermittent views of the scheme.

Biodiversity

The area surrounding the A77 carriageway within the scheme extents is characterised by scattered residential properties, intermittent patches of dense vegetation comprising mature trees and scrub, and extensive areas of farmland.

NatureScot's Sitelink has identified the Glen App and Galloway Moors Special Protection Area (SPA), located approx. 50m southeast of Phase 1 and 780m southeast of Phase 2 at its closest point.

For Phase 1 and Phase 2 works NBN Atlas resource has not identified the presence of any Invasive Non-Native Species (INNS) or Transport Scotland Target Species within 500m of the scheme extents. The Amey Environment SW INNS Map resource has not recorded the presence of any INNS or Transport Scotland Target Species within 500m of the works

A competent senior ecologist has reviewed the scheme and the surrounding habitat using desktop resources, and, a site visit was subsequently scoped out. This was concluded due to the transient nature of the works and their confinement within the carriageway boundary.

Geology and soils

Phase 1 and 2 scheme extents are not located within 200m of any Geological Conservation Review sites (GCRs), or SSSIs designated for their geological significance (NatureScot's Sitelink).

The National Soil Map of Scotland lists the soil present within both phases as Brown Soils and Non-calcareous Gleys, with surrounding land classified as grade '4.2' under the Land Classification for Agriculture.

The underlying bedrock geology is the Downan Point Lava Formation - Basalt, lava-pillowed. Igneous bedrock formed between 465.5 and 449 million years ago during the Ordovician period.

Overlaying this are sedimentary superficial deposits of Raised Marine Beach Deposits (Late Devensian), comprising sand, silt and clay, which date back to the Quaternary period, approximately 116,000 – 11,800 years ago.

Material assets and waste

Materials

Materials required are detailed within Table 3 below.

Table 1: Key Material Required for Activities

Activity	Materials Required	Sources
Construction	• TS2010 surface course • AC20 bituminous binder • AC32 bituminous base • Fuels and oils • Road paint • Road studs	• 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 will reduce the usage of imported aggregates and increase the use of a wider range of sustainable aggregate sources. • 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. • Some material may be derived from primary resources, such as the road paint.

Materials will be obtained from recycled, secondary, or re-used origin as far as practicable within the design specifications to reduce natural resource depletion and associated emissions. For example, the binder and base courses used for resurfacing will contain a percentage of recycled material.

Wastes

There is a possibility that coal tar may be found during investigation stages. Anticipated wastes from the proposed works are listed in Table 4 below.

Table 2: Key Waste Produced by Activities

Activity	Waste Produced	Disposal
Construction	• Asphalt planings • Road paint	• All waste will be disposed of in accordance with the Environmental Authorisation

Activity	Waste Produced	Disposal
	• Road studs • Possibility of coal tar	(Scotland) Regulations 2018 (EASR). • However, where planings meet SEPA's criteria, they will be fully recycled. • Any coal tar road planings will be treated as special waste.

A Site Waste Management Plan (SWMP) will be prepared prior to the works which will detail how resource use and waste arising from the works will be managed throughout the scheme. This is required due to the scheme exceeding £350,000 in value and will help control and reduce the amount of waste produced, resulting in less landfilled waste.

Noise and vibration

Baseline noise and vibration levels are likely to be influenced by vehicle traffic from the A77 carriageway and surrounding residential and agricultural activities. The AADF in 2024 for the main A77 carriageway just south of the scheme extents (site no. 752), accounted for 3,406 vehicles, with 695 of these being HGVs.

There are approx. 18 residential properties within 300m of Phase 1 works, with the nearest property, South Lodge, located approx. 1m from the A77 on the northern side of the carriageway.

Approximately 15 residential properties lie within 300m of the Phase 2 works, with the closest being 8, New Smyrton located approx. 10m east of the works along the A77 carriageway. Glenapp Castle Hotel is located approx. 200m south of the works.

Scotland's Noise Map has indicated modelled day-evening-night noise levels (Lden) in the areas surrounding the carriageway to be around 55-60 dB within 70m. Night-time noise levels (Lnight) surrounding the carriageway show levels of 50-65 dB within 70m.

The scheme is not located within a Candidate Noise Management Area (CNMA) as defined within the Transportation Noise Action Plan.

Population and human health

The A77 forms a rural single - carriageway section of the Glasgow-to-Portpatrick trunk route, accommodating local, tourist and HGV traffic to and from Ayr, Girvan and the Cairnryan ferry ports. The route passes through hilly, sparsely populated countryside, with Smyrton Hill rising nearby, and is accessed by minor roads from the Stinchar Valley.

There are approx. 18 residential properties within 300m of Phase 1 works, with the nearest property, South Lodge, located approx. 1m from the A77 on the northern side of the carriageway. These properties have screening from the carriageway in the form of hedgerows and thin strips of trees.

Approximately 15 residential properties lie within 300m of the Phase 2 works, with the closest being 8, New Smyrton located approx. 10m east of the works along the A77 carriageway. Glenapp Castle Hotel is located approx. 200m south of the works. The closest property number 8 is not screened from the carriageway, however the other 14 properties have screening from the carriageway in the form of hedgerows, thin strips of trees and woodland.

Single access points to fields and private properties are present within both phases.

South Ayrshire Council has identified core path ID- SA63, which crosses over the A77 carriageway within Phase 1 scheme extents at Smyrton, and will have visibility of the works. There are no Core Paths identified within Phase 2 scheme extents a view of the scheme extents.

There are no National Cycles Network Routes within 500m of the scheme extents at either Phase of works.

Road drainage and the water environment

SEPA's Water Classification Hub has not identified any classified watercourses within 500m of Phase 1 or 2 works.

Smyrton Burn, a non-statutory watercourse flows beneath the A77 carriageway within Phase 1 scheme extents at NGR- NX 10092 80231.

Kilphin Burn, a non-statutory watercourse flows beneath the A77 carriageway within Phase 2 scheme extents at NGR- NX 10072 80758.

A small pond is located approx. 30m north of South Lodge.

SEPA's Flood Map has identified a number of small areas at high risk (10% chance each year) of surface water flooding throughout Phase 1 and Phase 2 scheme extents.

Road drainage along the section of the A77 consists of top entry gullies and filter stones.

The works are not located within a Nitrate Vulnerable Zone (NVZ).

Climate

The Climate Change (Scotland) Act 2009, as amended by the Scottish Carbon Budgets Amendment Regulations 2025 sets out the statutory framework for reducing greenhouse gas (GHG) emissions in Scotland. The prior annual and interim targets have been replaced by five-year carbon budgets, which sets limits on the amount of GHGs that can be emitted in Scotland.

The proposed carbon budgets are aligned with advice from the UK Climate Change Committee (CCC) and calculated in accordance with the 2009 Act. The 2025 Regulations define the baseline years for emissions reductions as 1990 for GHGs including carbon dioxide, methane, and nitrous oxide, and 1995 for others such as hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride (as set out in Section 11 of the Act). The budgets are as follows:

- 2026 - 2030: Average emissions to be 57% lower than baseline.
- 2031 - 2035: Average emissions to be 69% lower than baseline.
- 2036 - 2040: Average emissions to be 80% lower than baseline
- 2041 - 2045: Average emissions to be 94% lower than baseline.

These budgets are legally binding and will be supported by a new Climate Change Plan, which will outline the specific policies and actions required to meet the targets.

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

Amey's Company Wide Carbon Goal is to achieve Scope 1 and 2 net-zero carbon emissions, with a minimum of 80% absolute reduction on our emissions by 2035. Amey is aiming to be fully net-zero, including Scope 3 emissions, by 2040.

Amey are working towards a contractual commitment to have carbon neutral depots on the South West Network Management Contract (SW NMC) network by 2028. Amey has set carbon goals for the SW NMC as a whole to be net-zero carbon by 2032.

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 throughout Phases 1 and 2 carry the potential to produce airborne particulate matter, dust and generate emissions that may have a temporary impact on local air quality levels and act as a nuisance to nearby residents.
- TM being implemented during both phases may result in an increase in associated vehicle emissions through idling vehicles and increased congestion.

Mitigation

Throughout both phases the following mitigation measures will be implemented:

- 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:
    - The site layout will be planned (including plant, vehicles and Non-Road Mobile Machinery (NRMM)) so that machinery and dust causing activities are located away from receptors, as far as reasonably practicable;
    - Materials that have a potential to produce dust will be removed from site as soon as possible, unless being re-used on site (stockpiles will be covered or fenced to prevent wind whipping);
    - Cutting, grinding or sawing equipment will be fitted or used in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems;
    - Drop heights from conveyors and other loading or handling equipment will be minimised;
    - Vehicles carrying wastes and materials will be covered when entering and leaving the work area to prevent escape of materials during transport;
    - Equipment will be readily available on site to clean any dry spillages and spillages will be cleaned up 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.

The following additional measure will be implemented:

- 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.
- Surfaces will be swept where loose material remains following planing.

No significant effects are predicted on air quality. Therefore, in accordance with DMRB Guidance document LA 105: Air Quality no further assessment is required.

Landscape and visual effects

Impacts

- There will be no operational impacts on visual receptors as both phases of work entail the like-for-like resurfacing of the A77 carriageway within the scheme extents.
- Visual receptors identified (core path ID- SA63 & A77 carriageway users) have the potential to be visually impacted by the scheme during construction due to the presence of TM, plant, vehicles, machinery and operatives.
- The general setting of the area along the A77 carriageway may be impacted during construction due to the presence of TM, plant, vehicles, machinery and operatives.

Mitigation

Throughout both phases the following mitigation measures will be implemented:

- Works will be contained within the A77 carriageway extents.
- Asset installation will be of a minimal visual impact (if any due to the like-for-like nature of the scheme) and will be in keeping with the current setting of the A77 carriageway within the scheme extents.
- Visual screening will be used where possible to minimise visual impacts on surrounding receptors.
- Where possible, vehicles, plant and machinery will be stored out of sight from nearby visual receptors. All site areas will be well-kept and tidy.

The residual effect on landscape and visual effects is deemed to be not significant. Therefore, in accordance with DMRB Guidance document LA 107: Landscape and Visual Effects no further assessment is required.

Biodiversity

Impacts

- Increase in night-time noise may result in temporary disturbance/nuisance for nocturnal species if active in proximity.
- There is no carriageway lighting throughout the scheme and any temporary lighting for the works may affect the foraging or commuting routes of nocturnal protected species which may be active in the surrounding area.
- A Habitats Regulations Appraisal (HRA) was undertaken and has concluded that there will be no Likely Significant Effects (LSE) on the Glen App and Galloway Moors SPA due to the following:
    - The proposed works will not lead to a reduction of habitat area as the scheme works will be restricted to the existing carriageway only.
    - The proposed works are unlikely to lead to a disturbance given the ample alternative suitable habitat for the species within the surrounding area.
    - The proposed works will not lead to an increase in habitat or species fragmentation.
    - The proposed works will not lead to any loss of habitat / species.
    - The proposed works will not be located within the SPA. The proposed works will not cause any obstruction to the passage of any qualifying species. Birds may be temporarily disrupted by noise if passing close to the scheme. However, any temporary disruption has been assessed as negligible and mitigated by standard control measures.

Mitigation

The following mitigation measures will be in place for Phase 1 and Phase 2:

- Operatives will remain vigilant for the presence of protected species within or near the works. If a protected species is seen on or near the scheme, all works will be stopped until the animal passes by. The protected species will not be approached, and the area will be temporarily isolated until the animal has moved on. Any sightings will be reported to the E&S Team.
- Directional lighting will be used for all construction activities where works are required at night to minimise the impact of temporary lighting on foraging and commuting bats and other nocturnal species. This will include avoiding light spill onto watercourses and adjacent woodland parcels.

- Impacts 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.
- No vehicles, machinery or materials will be parked/stored on any soft verges.
- Additional mitigation measures in *Noise and Vibration* and *Road drainage and the water environment* will be implemented.

It has been determined that the proposed scheme will not have direct or indirect significant effects to local Biodiversity.

Material assets and waste

Impacts

- Both phases of works have the potential for resource completion through the use and transportation of primary material such as aggregates.
- 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.
- GHG emissions will be generated by material production and transporting to and from site.
- Transportation and recovery of materials/waste will require energy deriving from fossil fuel, a non-renewable source.

Mitigation

Potential impacts related to pollution from materials and waste may result if these are not appropriately managed during construction. Therefore, the following regulatory requirements will be adhered to:

- A SWMP will be prepared prior to the works which will detail how resource use and waste will be managed. This will help control and reduce the amount of waste produced, resulting in less landfilled waste.
- The Contractor is responsible for the management and disposal of road planings arising from the works. All waste will be managed in accordance with the Environmental Authorisations (Scotland) Regulations 2025, under the relevant SEPA waste authorisation for recovery, reuse or disposal. For example, road planings will be prioritised for recovery or reuse, through recycling into new asphalt, in line with the waste hierarchy.
- Waste will be transferred to SEPA-authorised facilities by carriers with valid waste carrier registration. A waste transfer note (WTN) will be completed for removal of waste from site and retained for two years, in line with statutory Duty of Care requirements.

The following mitigation measures will be implemented for Phase 1 and 2:

- Materials will be derived from recycled, secondary or re-used origin as far as practicable within the design specifications to reduce natural resource depletion and associated emissions.
- Any non-contaminated road planings arising from the works will be fully recycled in accordance with SEPA's guidance on the Production for Fully Recovered Asphalt Road Planings.
- Any coal tar-contaminated planings will be treated as special waste and taken off site for treatment/disposal at a licenced waste facility.

With best practice mitigation measures in place, the residual significance of effect on material assets and waste is considered to be not significant. Therefore, in accordance with DMRB Guidance document LA 110: Material Assets and Waste, no further assessment is required.

Noise and vibration

Impacts

- TS2010 road surfacing which will be used for both phases is shown to have superior durability and noise reducing features compared to standard road surfacing mixes. Vehicle travellers and nearby local amenity users will benefit from improved road surfacing as a result of the scheme.
- Noise heavy works will likely be required (temporarily) during nighttime hours, which could cause disturbance for nearby sensitive receptors (such as residential properties within 300m).

Mitigation

Mitigation measures follow Best Practicable Means as outlined in British Standard (BS) 5228:2009+A1:2014. The standard provides specific detail on suitable measures for noise control in respect to construction operations, for example:

- Impacts 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.
- Plant and machinery will be switched off when not in use to reduce noise disruptions to the surrounding environment.
- Engine exhaust and vent silencers will be used where possible.
- The noisiest works will be scheduled for before 11:00pm where feasible.

- The delivery of materials to the scheme extents will be made during daytime and early evening hours where reasonably practicable, to reduce noise associated by traffic.
- Operatives will avoid extraneous noise whilst onsite and will be briefed using the Amey Noise and Vibration environmental briefing.

The following further mitigation measures related to noise and vibration will be in place:

- South Ayrshire Council Environmental Health Department has been notified of the works by the E&S Team, due to night-time programming.
- Residential properties within 300m will be notified in advance of the works via letter drop, providing details of timings, nature, and duration of the works.

With best practice mitigation measures in place, and due to the works being of a minor, temporary, transient nature, no significant effects are predicted for noise and vibration. Therefore, in accordance with DMRB Guidance document LA 111: Noise and Vibration and no further assessment is required.

Population and human health

Impacts

- Construction site lighting during night-time hours could cause disturbance for residential properties in close proximity, and for the nearby amenity users.
- TM for the works will involve diversion routes and the re-routing of traffic. Nearby residents of surrounding settlements may experience travel disruption due to presence of TM, which may lead to increased journey lengths and times.
- There will be no permanent or temporary impacts on land take from private land, community facilities or agricultural land as a result of the scheme as all works will be contained within the carriageway boundary.
- Single access points to properties such as those in Smyrton and private land will be impacted by the scheme.
- The core path at Smyrton will remain open during the works.

Mitigation

The following mitigation measures will be implemented for Phase 1 and 2:

- TM will be advertised upon approach and in advance of the scheme. When in place, TM will be monitored to ensure it is effectively managing traffic flow.
- Temporary site lighting used throughout the scheme will be directional and pointed only at the area of works.

- Site specific control measures regarding noise and vibration, landscape and visual effects and air quality can be found in the relevant sections (above).
- Due to night-time programming, properties within 300m of the scheme extents will be notified in advance of the works. Pre-notification will include details of proposed timings, duration of the works.
- Single access points to properties and private land will be maintained at all times throughout the scheme.

With best practice mitigation measures in place, no significant effects on 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

- Potential for spills, leaks or seepage of fuels and oils associated with plant to escape and reach drainage systems if not controlled, which may impact the water environment.
- If not appropriately controlled, debris and runoff from the works has the potential to enter nearby drains and watercourses and could detrimentally impact water quality.
- In the event of a flooding incident, debris may be mobilised and could enter the road drainage having a detrimental effect on the surrounding local water environment.

Mitigation

The following mitigation measures will be implemented for Phase 1 and 2:

- Best practice, as detailed by SEPA's Guidance for Pollution Prevention (GPP5 and PPG6), will always be followed onsite. This will ensure that any potential debris/spills are not allowed to enter road drainage unchecked.
- 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, but will not be limited to, spill kits being present onsite at all times, and the use of funnels and drip trays when transferring fuel, and utilisation of drain covers/shielding boards.
- Any pollution incidences will be reported to the Amey control room.
- Operatives will conduct regular checks of the work site, especially in periods of heavy wind and rainfall.
- 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.

- Bunds will be provided around drums up to 205 litres with a buffer of 25% of their capacity, and around bulk storage to a capacity of 110% of the stored fuel/oil.
- All plant and fuel storage at the site compound will be located on hardstanding and sited more than 10m from any watercourse.
- All plant and fuel storage areas will be located away from areas that see high vehicular movement to prevent accidental damage.
- All oils and fuels will be returned to storage area after use.
- No refuelling will take place within 10m of any watercourse, including field drains and road drainage.
- Weather reports will be monitored prior to 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 when run-off/drainage can be adequately controlled to prevent pollution.

Providing all works operate in accordance with current best practice, as demonstrated by SEPA's GPPs the residual significance of effect on the water environment is considered to be neutral. 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 emitted through the use of machinery, vehicles and materials used (containing recycled and virgin materials) and transporting to and from site.

Mitigation

The following mitigation measures will be implemented for Phase 1 and 2:

- 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.

With best practice mitigation measures in place, the residual significance of effect on climate is considered to be not significant. Guidance document LA 114: Climate, no further assessment is required.

Vulnerability of the project to risks

As the works will be limited to the resurfacing of the carriageway, 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.

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

Assessment cumulative effects

The Scottish Road Works Commissioner's Interactive Map does not highlight any other works in the area at the time of construction.

South Ayrshire Council's Planning Portal does not highlight any proposed developments or planning applications on the A77 carriageway within 2km of the scheme.

Amey's current programme of works has not highlighted any other works on the A77 that will be undertaken in conjunction with the scheme.

No other nearby schemes which may result in a combined effect on nearby receptors have been identified.

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

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

The following environmental surveys/reviews have been undertaken:

- An Environmental Scoping Assessment of the scheme, undertaken by the Amey ET&S Team in December 2025.
- Consultation with South Ayrshire Council's Environmental Health team in December 2025.
- A Habitats Regulations Assessment was undertaken by the Amey ET&S Team in November 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) 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 existing carriageway boundary within made ground and as such there will be no residual change to the local landscape as a result of the works.
- No in-combination effects have been identified.

- Works are not expected to result in significant disturbance to protected species that may be present in the wider area.
- The risk of major accidents or disasters is considered to be low.
- As the works will be limited to the like-for-like replacement of the structural components, 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 impacts on the environment are expected during the operational phase as a result of works.
- By removing the carriageway defects this will provide this part of the A77 carriageway with another life cycle, and significantly improve the ride quality, which will result in safer conditions, and positive operational impacts for road users.

Location of the scheme:

- The scheme has the potential for connectivity to the Glen App and Galloway Moors SPA. A HRA has been undertaken concluding no significant impacts.
- Works are not anticipated to impact areas designated for their landscape character or quality and will not impact culturally significant designations present at the site due to its containment within the carriageway.
- The scheme will be confined within the existing carriageway boundary and as a result will not require any land take or alter any local land uses or habitats.
- Any impacts to the local landscape during the construction phase will be minor, temporary and not considered significant. In addition, no operational adverse impacts are anticipated.

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 environment.
- Any potential impacts of the works are expected to be temporary, non-significant, and limited to the construction phase.
- Measures will be in place to ensure appropriate removal and disposal of waste.
- No in-combination effects have been identified.

References of supporting documentation

- Environmental Scoping Assessment. November 2025
- Habitats Regulations Appraisal November 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.

TRANSPORT SCOTLAND
CÒMHDHAIL ALBA

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, January 2026

Follow us:

transcotland

@transcotland

transport.gov.scot

Scottish Government
Riaghaltas na h-Alba
gov.scot