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Environmental Impact Assessment Record of Determination

A77 Ardwell to Ardmillan Castle

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Project Details

Description

This scheme requires resurfacing of the A77 carriageway between Girvan and Lendalfoot in South Ayrshire. The upgrades are required due to the deterioration of the existing pavement, which is currently displaying various structural defects including fretting, rutting, cracking and areas of previous patching. The proposed improvement is to restore the structural integrity and surface condition of the carriageway, improving safety and ride quality for road users.

The works will also include ancillary and verge works such as replacing of filter stone, vehicle restraint system (VRS) upgrades and traffic sign replacements.

Construction activities and the associated plant and machinery required are as follows:

- Implementation of temporary traffic management (TM) and marking out site extents prior to construction (TM plant);
- Planing and removal of existing surfacing materials to the specified depths;
- Loading and transportation of arisings from site using wagons and lorries;
- Preparation of the exposed surface to receive new pavement materials;
- Resurfacing to the existing road levels using TS2010 aggregate, AC binder, AC base (paver, roller);
- Installation and/or replacement of filter stone within verge areas;
- Upgrades to the Vehicle Restraint System (VRS) where required using hand tools;
- Replacement or improvement of traffic signs within the scheme extents using hand tools;
- Reinstatement of road markings, linings, and studs (lorries/wagons and plant); and,
- Removal of TM.

The construction is programmed to be undertaken and completed within the 2026-2027 financial year, proposed for August 2026 during nighttime hours. An exact start date is still to be determined, as is the duration of the works.

TM required will be a combination of convoy working and overnight closures. Where closures are necessary, a diversion route will be put in place utilising the A714 from Girvan to Newton Stewart traveling west to the A75 to Stranraer.

Location

This resurfacing scheme is being undertaken along the A77 carriageway, between Girvan and Lendalfoot in South Ayrshire covering an area of 8,211m². The scheme extents can be found at the following National Grid References (NGRs) (Figure 1):

- Scheme Start - NX 15910 94076
- Scheme End - NX 16734 94879



Figure 1: Scheme Location Map

Description of Local Environment

Air Quality

This resurfacing scheme is being undertaken along the A77 carriageway, between Girvan and Lendalfoot, in South Ayrshire (See *Figure 1*). Local air quality is likely to be primarily influenced by traffic along the A77; however, secondary sources may include activities from surrounding agricultural and arable fields. [Manual count point 10752](#), located along the A77 at NGR NX 13180 90100 approximately 4.8km southwest, shows that in 2024, the Annual Average Daily Flow (AADF) for all motor vehicles was 3,963 with 632 (16%) of these being Heavy Goods Vehicles (HGVs).

There are three residential properties, including farming residences, located within 200m of the scheme extents. The closest property being Ardwell Cottage located adjacent to the A77 carriageway along the southbound (SB) carriageway. The closest farm is Ardwell Farm also located adjacent to the SB carriageway.

There are no other non-residential receptors located within 200m of the proposed works area.

Each Local Authority in the UK is responsible for reviewing and assessing air quality in their respective areas to ensure that the National air quality objectives are met. Where areas are failing to meet the National objectives, Local Authorities are required to declare an [Air Quality Management Area \(AQMA\)](#). South Ayrshire Council has not declared any AQMAs.

There are no sites registered on the [Scottish Pollutant Release Inventory \(SPRI\)](#) within 1km of the proposed area of works. There are no [Air Quality Monitoring Stations](#) situated within 200m of the scheme extents.

The [Department for Environment, Food and Rural Affairs \(DEFRA\) UK Ambient Air Quality Map](#) presents predicted background air pollutant concentrations across the UK. According to the 2024 dataset, background annual mean Nitrogen Dioxide (NO₂) concentrations within the proposed works area are approximately 1.53 µg/m³. This value is within National air quality pollution limits (40 µg/m³).

Cultural Heritage

A desk-based assessment has been undertaken using [Pastmap](#) online mapping tool. The study area covered a 300m radius for designated cultural heritage assets and a 200m radius for non-designated cultural heritage assets. Where an asset has been listed more than once, its highest statutory designation has been recorded.

No statutory cultural heritage features are located within 300m of the scheme extents. A Milestone is located adjacent to the A77 northbound (NB) carriageway within the extents of the proposed works at approximately NGR NX 16394 94633.

Historic Environment Records (HERs) and National Record of the Historic Environment (NRHE) provide local and national level information on Scotland's historic environment. There are approximately six located within 200m, the closest being the following:

- Ardwell NRHE ([ID: 62087](#)) which is a Farmhouse and Farmstead (Period unassigned) located 45m south of the carriageway.

Landscape and Visual Effects

Landscape

The proposed works are situated within a rural area between Lendalfoot and Girvan in South Ayrshire along the A77 carriageway. Both sides of the carriageway are bordered by grass verges and shrubbery with an absence of woodland. Ardwell Bay lies immediately west of the scheme extents, just before the Firth of Clyde. Adjacent agricultural and arable land is located to the south of the scheme extents.

Please refer to Road Drainage and the Water Environment for a detailed description of the water environment surrounding the scheme.

There are no historical or cultural landscape features within the scheme extents, however, a Milestone is located adjacent to the A77 carriageway approximately NGR NX 16394 94633.

The following [ancient woodlands](#) can be found within 500m of the scheme extents:

- Crow Wood Long Established (of plantation origin) Ancient Woodland (Wood ID: 37187) located approximately 415m south of the works, and;

- Crow Wood (other origin) Ancient Woodland (ID: 37188) located approximately 490m south of the scheme extents.

A desk top study has identified that no [Garden and Designed Landscapes, National Scenic Areas \(NSAs\) or Tree Preservation Orders \(TPOs\)](#) are present within 500m, or within visual proximity, of the proposed works.

According to [NatureScot's Landscape Character Type \(LCT\) Map](#), the LCT within the proposed works area can be classed as '[Lowland - Raised Beach Coast and Cliffs](#)' which occurs in seven areas in Ayrshire, focused on thin strips of land on the western coastal edge of the mainland, facing towards the Firth of Clyde, and around the north-western and north-eastern coastal edge of the Isle of Arran.

Whilst there is no data available with regards to past land use as noted by the [Historic Land Use Assessment \(HLA\) Map](#), current land used within the scheme extents has been identified as '[Rectilinear Fields and Farms](#)'. Field boundaries were designed to be rectilinear wherever possible, because it improved the efficiency of agriculture, tending to reduce unworkable corners. Recent amalgamation of these fields is common.

Visual Effects

Due to the lack of vegetative screening and lack of topographic screening, the scheme will be visible to multiple receptors, specifically those located adjacent to the SB carriageway within the extents of the proposed works area. Employees and residents of Ardwell Farm will also have views of the construction activities.

Visitors to Ardwell Bay are anticipated to have views of the scheme extents.

Transient visual receptors include road users (motorists, public transport users) travelling along the A77.

[Core path](#) SA2 runs adjacent to the scheme extents at its closest point, and users of this route are anticipated to have views of the works.

Biodiversity

Protected Areas

Lendalfoot Hills Complex Special Area of Conservation (SAC) ([ID: 8288](#)) is located approximately 715m southeast of the works.

The Girvan to Ballantrae Coast Section Site of Special Scientific Interest (SSSI) ([ID: 690](#)) is located adjacent and partially within the scheme extents.

As works fall within the Girvan to Ballantrae Coast Section SSSI, consultation has been undertaken with NatureScot on 27 May 2026. This consultation concluded that the natural heritage interests within Girvan to Ballantrae SSSI are unlikely to be impacted by the works.

As works fall within 2km of the Lendalfoot Hills Complex SAC, a Stage 1 Habitat Regulations Appraisal is required prior to construction to determine if there are any likely significant effects (LSE).

This resource has not identified the presence of Local or National Nature Reserves within 200m of the scheme extents that are designated for ecological features.

There are no [TPOs](#) located within 500m of the proposed works location.

Field Survey

As the construction activities include verge works, a competent Amey ecologist determined that a pre-construction field survey was required. The survey was undertaken on 3 June 2026.

Invasive Plants

A desktop study using the [NBN Atlas](#) has identified the following target species and Invasive Non-Native Species (NBN) within 500m of the proposed works:

- Rhododendron (*Rhododendron ponticum*), and;
- Broad-leaved dock (*Rumex obtusifolius*).

Transport Scotland's Asset Management Performance System has recorded the presence of the following species:

- Common ragwort (*Jacobaea vulgaris*), and;
- Broad-leaved dock.

Geology and Soils

Geology

According to [NatureScot's Sitelink](#) online research tool, Girvan Foreshore Geological Conservation Review Site (GCRS) (ID: 9619) is located within the scheme extents.

Lendalfoot Hills Complex Special Area of Conservation (SAC) ([ID: 8288](#)) is located approximately 715m southeast of the works. This site is designated for the following:

- Base-rich fens;
- Dry heaths;
- Grasslands on soils rich in heavy metals;
- Species-rich grassland with mat-grass in upland areas;
- Very wet mires often identified by an unstable 'quaking' surface, and;
- Wet heathland with cross-leaved heath.

The Girvan to Ballantrae Coast Section (SSSI) ([ID: 690](#)) is located adjacent and partially within the scheme extents and is designated for geological features. Please see Biodiversity – Protected Areas for details.

[Bedrock geology](#) underlying the proposed scheme extents consists of Ardwell Farm Formation-Interbedded sandstone and argillaceous rocks in relatively equal proportions. 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.

[Superficial deposits](#) within the works and surrounding area has been identified as raised marine beach deposits of Holocene age-Gravel, sand and silt. These sedimentary deposits are shallow-marine in origin. They are detrital, generally coarse-grained forming beaches and bars in a coastal setting.

As works fall within Girvan Foreshore GCRS and Girvan to Ballantrae Coast Section SSSI, consultation has been undertaken with NatureScot on 27/05/2026. At present, no response has been received.

Soils

[Scotland's Soils Map](#) has recorded that the component soil within the scheme extents consists of brown earths derived from raised beach sand and gravels

produced from Carboniferous rocks with some Old Red Sandstone material. These soils are found on raised bean terraces and mounds with gentle slopes.

Towards the scheme 'Start', the component soil can be identified as being noncalcareous gleys derived from drifts produced from Lower Paleozoic greywackes and shales. These can be found on foothills and depressions with gentle slopes.

Land Use and Contamination

The [national scale land capability for agriculture](#) can be classed as '2' and '6.1'. This land is capable of producing a wide range of crops and the use as rough grazings with a high proportion of palatable plants.

There are no operational [landfill sites](#) located within 1km of the scheme extents.

Material Assets and Waste

Materials

Warm-mix asphalt (WMA) will be used for the resurfacing works. Where practical, all materials will comply with Transport Scotland's amendment to the Specification for Highway Works, Clause 908TS Warm Mix Asphalt, which sets out performance requirements for WMA mixtures. WMA requires less heat, reducing energy use, making it more environmentally friendly in comparison to hot mix asphalt.

Other material required will consist of the following:

- Road studs;
- Vehicle fuel and oil;
- Road marking material, and;
- Verge maintenance material – bollards, filter stones and chevron poles.

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

Wastes are anticipated to be carriageway planings which will primarily be recycled at a licenced facility, thereby reducing the amount sent to landfill and promoting circular economy practices.

Coring investigations have identified the presence of coal tar. All special waste will be transported by a suitable licenced contractor and accompanied by a correctly completed special waste consignment note (SWCN) providing information about the waste, the producer and the person the waste is being handed to; the SWCN will be kept for three years, the Site Responsible Manager is responsible for ensuring these are retained onsite.

A Site Waste Management Plan (SWMP) will not be prepared prior to the works due to the scheme being less than £350,000 in value.

Noise and Vibration

Local noise and vibration are likely to be primarily influenced by traffic along the A77; however, secondary sources may include activities from surrounding agricultural and arable fields. For AADF details, please refer to the Air Quality section above.

There are three residential properties, including farming residences, located within 300m of the scheme extents. The closest property being Ardwell Cottage located adjacent to the A77 carriageway along the SB side. The closest farm is Ardwell Farm, which is also situated adjacent to the southbound carriageway.

The only non-residential sensitive noise and vibration receptor located within 300m of the scheme is Ardmillan Castle Holiday Park approximately 211m southeast.

According to [Scotland's Noise Map](#), modelled day-time noise levels (L_{day}) at the nearest receptors have been recorded to range between 66-67dB, whereas within the scheme extents, noise level ranges between 69-70dB. Noise level during nighttime hours (L_{nigt}) within the surrounding area is approximately 62dB whereas within the scheme extents noise has been recorded to range between 64-65dB.

The works do not fall within any [noise agglomerations](#) (e.g. Glasgow, Falkirk, Aberdeen, Dundee and Edinburgh). An agglomeration refers to an urbanised area where the population more than 100,000 people and a population density equal to or greater than 500 people per km².

The scheme extents do not fall within a Candidate Noise Management Areas (CNMA) as highlighted by [Transport Scotland's Transportation Noise Action Plan \(TNAP\) \(2024-2028\)](#).

Population and Human Health

Given the nature and scale of the proposed works, a reduced buffer distance of 300m has been adopted for the assessment of Population and Human Health impacts and the identification of associated mitigation measures.

Community Land and Assets

The scheme extents are situated within a rural area along the A77 carriageway between Lendalfoot and Girvan in South Ayrshire. This section of A77 provides key connectivity between smaller settlements, including Girvan and Ballantrae, and facilitates onward links to larger urban centres such as Stranraer and the city of Glasgow. These smaller towns, particularly Girvan, are primarily characterised by residential areas and a range of community facilities, including schools, places of worship, and recreational spaces.

There are no streetlights, bus stops or laybys located along the scheme extents.

Agriculture, Private Property and Housing

There are three residential properties located within 300m of the scheme extents, including associated farm residences. The closest property is Ardwell Cottage, situated adjacent to the A77 carriageway on the SB carriageway.

Agricultural fields border the SB carriageway, with the nearest holdings being Ardwell Farm, which is also located adjacent to the A77. This farm supports livestock and facilitates visitation from members of the public.

There are several access and egress points present within the scheme extents. Approximately four of these provide access to agricultural fields, while two serve residential properties. The access points to residential properties represent their sole means of vehicular access.

Development Land and Businesses

The only key community asset in addition to Ardwell Farm within 300m of the scheme is Ardmillan Castle Holiday Park approximately 211m southeast.

Walkers, Cyclists and Horse-Riders (WCH)

[Core path](#) SA2 runs adjacent to the scheme extents at the closest point. No other core paths have been identified within 300m of the scheme extents.

There are no [National Cycle Network Routes](#) or any [bridleways](#) located within 300m of the proposed works area.

Road Drainage and the Water Environment

Surface Water

Girvan coastal water body (ID: 200015) is located approximately 80m west at the closest point. This body of water has been recorded to have an overall 'Good' quality in 2024 as noted by the [Water Framework Directive \(WFD\)](#).

There are multiple unnamed, unclassified watercourses located within 500m of the scheme extents. There are no ponds located within 250m of the works area.

Drainage along the A77 carriageway within the scheme extents consist of catchpits and gullies.

The scheme is not located within a surface water [Drinking Water Protected Area](#).

Flood Risk

According to the [Scottish Environment Protection Agency \(SEPA\)'s Flood Risk Map](#), there are localised areas along the scheme extents that are predicted to experience a 'Medium' to 'High' (0.5%-10% probability per annum) likelihood of surface water flooding.

Girvan coastal waterbody also has a 'High' (10% probability per annum) likelihood of coastal water flooding.

Groundwater

Works do not fall within a [Nitrate Vulnerable Zone \(NVZ\)](#).

[Groundwater](#) within the scheme extents can be classed as Girvan Coastal groundwater (ID: 150758) which has been recorded to have an overall 'Good' quality in 2024 according to the WFD.

Climate

Carbon Goals

The Climate Change (Scotland) Act 2009 [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 greenhouse gases 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 50% lower than baseline.
- 2031 - 2035: Average emissions to be 60% 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, representing for 37% nationwide, and Transport Scotland are committed to reducing their emissions by 50% by 2030. To support this, Transport Scotland's Fourth Carbon Management Plan is committed to reaching Net Zero emissions across corporate activities by 2027. This will contribute to achieving 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 SW NMC network by 2028. Amey have set carbon goals for the SW NMC contract as a whole to be net-zero carbon by 2032.

Monitoring, Management and Opportunities

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

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

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

Policies and plans

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

Description of Main Environmental Impacts and Proposed Mitigation

Air Quality

Impacts

Construction

- During the construction phase, activities undertaken on site could potentially have some minor localised and short-term air quality impacts in proximity to the works:
- Construction activities, including excavation, carry a potential to produce airborne particulate matter, dust and generate emissions;
- Various plant, vehicles, and Non-Road Mobile Machinery (NRMM) will contribute to local dust, particulate matter and exhaust emissions.
- TM measures will likely cause congestion and elevated traffic related emissions during the works.
- Residents located along any diversion routes, may experience a temporary reduction in local air quality due to the increased volume of traffic.

Operation

- The impacts identified will be temporary for the duration of the works only and therefore no change is predicted on air quality.
- Post construction there will be no change to the traffic volume, speed or road alignment.

Mitigation

Mitigation measures will follow best practice from the Institute of Air Quality Management (IAQM), from the '[Guidance on the assessment of dust from demolition and construction](#)' (2024)', including:

- Site layout will be planned (including plant and vehicles) 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, such as excavated material, will be removed from site as soon as possible, unless being re-used on site;

- Drop heights from conveyors and other loading or handling equipment will be minimised;
- Vehicles entering and leaving the work area will be covered/sheeted to prevent escape of materials during transport;
- Equipment will be readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

The following additional mitigation measures will be implemented:

- Green driving techniques will be adopted, and effective route preparation and planning undertaken prior to works.
- Plant, vehicles and Non-Road Mobile Machinery (NRMM) will be regularly maintained, paying attention to the integrity of exhaust systems to ensure such fuel operated equipment is not generating excessive fumes.

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

Cultural Heritage

Impacts

Construction

- There are no designated cultural heritage features within the scheme extents, and no land acquisition is required.
- All works are confined to the existing carriageway surface and immediate verges, and due to the limited nature and scale of the activities, significant vibration effects are not anticipated. Consequently, no impacts are anticipated on the listed building recorded.
- The non-designated assets listed, including the closest asset (Ardwell) are not expected to be impacted, as the works involve like-for like resurfacing and immediate verge works with a transient short construction duration.
- Original construction of the A77 and associated infrastructure likely removed any archaeological remains. As such, the potential for unknown archaeology is considered low.
- In the absence of mitigation measures, there may be a minor impact to the milestone adjacent to the carriageway at NX 16394 94633 as it is relatively hidden within grasses.

Operation

No operational impacts with regard to cultural heritage have been identified as a result of the proposed scheme.

Mitigation

The following mitigation measures will be in place throughout the period of works:

- All plant and machinery will be stored within the carriageway boundary where practicable.
- If any archaeological finds are discovered, the works will be suspended, and the relevant stakeholders will be contacted.
- Site staff will be made aware of the milestone located adjacent to the carriageway. Plant and machinery will not be stored within close proximity to the milestone.

No significant effects are anticipated to cultural heritage. Therefore, in line with DMRB Guidance document LA 106: Cultural Heritage, no further assessment is required.

Landscape and Visual Effects

Impacts

Construction

- Temporary visual impacts will be experienced by nearby receptors and users of the recreational areas/routes during construction due to plant, vehicle, machinery and operatives present throughout the proposed works.
- Construction activities will introduce a temporary change to the local landscape from the presence of construction plant, materials and traffic management. All landscape effects will be temporary and reversible.
- Users of the A77 carriageway will be temporarily visually impacted for the duration of the works due to construction activities.
- Visual receptors may be impacted by misdirected site lighting.

Operation

Once complete, the works will be in-keeping with existing road infrastructure and will not introduce significant new visual elements, the only visual change will be an improved road surface, with no significant visual effects anticipated.

Mitigation

The following mitigation measures will be in place:

- The site will be kept clean and tidy throughout all stages of the works, with appropriate storage of materials, equipment, plant and waste.
- Works will avoid encroaching on land and areas where work is not required or not permitted, including for storage and parking.
- Plant, vehicles, and materials will be contained to hardstanding areas within the carriageway boundary (as far as reasonably practicable). Should damage to the landscape occur, reinstatement will be carried out.
- Directional site lighting will be used to minimise visual impacts to the identified visual receptors.

With mitigation measures and best practice in place, it is anticipated that any landscape and visual effects associated with the works will not be significant. Therefore, in accordance with DMRB Guidance document LA 107: Landscape and Visual Effects, no further assessment is required.

Biodiversity

Impacts

Construction

- As part of the Network Management Contract (NMC), Amey, on behalf of transport Scotland, has been tasked with recording various target species, including common ragwort. Works carried out in the carriageway verge, have potential to result in the spread of this species through disturbance.
- An increase in noise levels from construction activities and misdirected site lighting has the potential to disturb any protected species within the scheme surroundings.
- Verge works may cause the spread of any INNS or target species that may present along the verge such as Rhododendron, broad-leaved dock, or common ragwort.

- The watercourses nearby pose a potential pathway to pollute aquatic habitats, particularly during milling operations and periods of heavy rainfall (see Road Drainage and the Water Environment section for further details).

As works fall within 2km of the Lendalfoot Hills Complex SAC, a Stage 1 Habitats Regulations Appraisal was carried out to determine if there is potential for Likely Significant Effects (LSE). The following conclusions were identified:

- The proposed works will not lead to habitat or species fragmentation as the works are taking place within the existing A77 carriageway boundary.
- No interference with the key relationships that define the structure of the European Site is anticipated.
- There is no requirement for land take within the European Site as a result of the scheme, as all works will be confined to the existing A77 carriageway boundary.

The following pollution prevention measures will also be implemented:

- Where possible, the storage of plant, machinery, vehicles and equipment will be restricted to the boundaries of the carriageway.
- All 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. Storage and mixing of concrete will take place at least 10m away from watercourses.
- Measures will be implemented to minimise noise from site activities e.g. silencers/mufflers fitted to machinery; switching off noise emitting equipment when not in use; and operating a 'soft start' to the works

Operational

No operation impacts on biodiversity are anticipated as the scheme will not have any ongoing effects or disturbance to the surrounding habitats.

Mitigation

- If a protected species is encountered, works will be paused and advice sought from Amey's Environmental Team.
- Due to night-time programming, where lighting is required, hoods will be used and lights directed at works and away from ecological receptors including any woodland areas and watercourses, to minimise disturbance to nocturnal species.
- 'Soft start' techniques will be utilised with noise heavy equipment/plant/machinery in order to avoid disturbance to any potential noise sensitive species present in the area.

- Vehicles and materials will not be stored or parked on grass verges where possible. Where damage occurs, the reinstatement of the grass verge will be carried out.
- Verge works will be undertaken; however, they will be limited in extent as far as reasonably practicable to prevent the spread of INNS and target species and limit disturbance to protected species that may be present along the carriageway.
- Works within the breeding bird season (March to August inclusive) will require a qualified/experienced ecologist to carry out a nesting bird check before works can proceed.
 - Nesting bird checks must be undertaken within 48 hours prior to any vegetation clearance works taking place. If works are delayed such that more than 48 hours has passed since the nesting bird check took place, then an update nesting bird check will be required.
 - If any active nests are identified, then a 5m buffer (or as defined by the site ecologist, depending on the species present and site conditions) will be set around the nest and vegetation clearance works stopped within this buffer until an ecologist has determined that the nest has become inactive (which may take up to six weeks depending on the bird species present).

With the above mitigation measures and best practice being adhered to, no significant effects on biodiversity are anticipated. Therefore, in accordance with DMRB Guidance document LA 108: Biodiversity, no further assessment is required.

Geology and Soils

Impacts

Construction

- There is potential for spills, leaks or seepage of fuels and oils associated with machinery to escape if not controlled which may negatively affect the soil environment.
- The verge works may result in minor soil disturbance, which can create adverse conditions, including erosion and polluted soils.

As works are located within the Girvan Foreshore GCRS and the Girvan to Ballantrae Coast SSSI, consultation with NatureScot has been carried out on 27 May 2026. This consultation concluded that the natural heritage interests within both the Girvan Foreshore GCRS and Girvan to Ballantrae SSSI are unlikely to be affected by the works, therefore, consent is not required. The following mitigation measures will be implemented:

- Plant, vehicles, and materials will be contained to the current carriageway boundary and immediate verges.
- Where plant, vehicles, or materials are required to be located beyond the highway boundary, all such activities will be carried out on the opposing side of the carriageway to the SSSI.

Given that the proposed works are limited to carriageway resurfacing and minor verge works, no significant impacts are anticipated. In contrast, the following operations have the potential to impact the designated features of the sites and would require consent before being undertaken:

- Dumping, spreading or discharge of any materials.
- Modification of the structure of water courses (e.g. streams), including their banks and beds, as by re-alignment, regrading and dredging.
- Reclamation of land from sea.
- Erection of sea defences or coast protection works, including cliff or landslip drainage or stabilisation measures.
- Extraction of minerals, including shingle, sand and gravel, topsoil, subsoil and spoil.
- Construction, removal or destruction of tracks, walls, fences, hardstands, banks, ditches or other earthworks, or the laying, maintenance or removal of pipelines and cables, above or below ground.
- Storage of materials on or against rock outcrops.
- Erection of permanent or temporary structures, or the undertaking of engineering works, including drilling.
- Modification of natural or man-made features (including cave entrances), clearance of boulders, large stones, loose rock, scree or spoil and battering, buttressing, grading or seeding rock-faces, or outcrops.

As none of these activities form part of the proposed scheme, no adverse impacts on the designated sites are expected and consent is not required.

Operation

No operation impacts on geology and soils are anticipated as the scheme will not have any ongoing effects or disturbance to geology or soils.

As works are like-for-like in nature, it is not expected that the Girvan Foreshore GCRS will be significantly impacted post construction.

Mitigation

- Where damage to soil occurs from vehicles stored and parked on the verge of the carriageway, the reinstatement of the grass verge will be carried out. Amey's Landscape team will be contacted for specifications.
- Spill kits will be present on site and all operatives fully trained in their use. Any fuels or chemicals required for use will be stored securely with drip trays used appropriately and stored under any chemical or fuel containers.
- If any unusual odours or soil colourations are identified during the works, the works will cease, and the environmental team notified.
- Excavation of soils will be kept to a minimum and only where necessary, with any excavated soils being re-used on site as far as reasonably practicable (e.g., to backfill removed trial holes etc.).
- Excavated soils will not be stored on site, and will be appropriately contained/covered, and protected from the elements.
- Verge works will be limited to the carriageway boundary and immediate verges/assets in order to reduce any impacts to the Girvan Foreshore GCRS and the Girvan to Ballantrae Coast SSSI.
- Plant, vehicles, and materials will be contained to the current carriageway boundary and immediate verges. Where plant, vehicles, or materials are required to be located beyond the highway boundary, all such activities will be carried out on the opposing side of the carriageway to the SSSI.
- See additional pollution mitigation measures in the *Water Environment* section below.

With mitigation measures in place, no significant effects are anticipated on geology and soils. Therefore, in line with DMRB Guidance document LA 109: Geology and Soils no further assessment is required.

Material Assets and Waste

Impacts

Construction

- The use of virgin aggregates within the scheme will contribute to the depletion of natural and finite geological resources.
- Transportation and recovery of materials/waste will require energy deriving from fossil fuel, a non-renewable source.
- Use of TS2010 will reduce the usage of imported aggregates as it will prolong the period before future resurfacing is required and increase the use of a wider range

of sustainable aggregate sources thus reducing greenhouse gas (GHG) emissions.

Operation

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. Furthermore, as the surrounding infrastructure (VRS, traffic signs, road markings) will be repaired or replaced, this will reduce the need for maintenance in the immediate future.

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 and associated emissions. Where possible all materials will be reused throughout the network, if not possible they will be recycled locally at a suitably licenced waste management facility.
- Use of TS2010 will reduce the usage of imported aggregates and increase the use of a wider range of sustainable aggregate sources thus reducing GHG emissions.
- Materials will be delivered on site when required.
- 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 2018](#), 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-authorized 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.
- All special waste, such as Asphalt Waste Containing Coal Tar (AWCCT) will be disposed of at a licenced facility. Consequently, AWCCT will be transport by a suitably licenced contractor and accompanied by a correctly completed special waste consignment note (SWCN) providing information about the waste, the producer and the person the waste is being handed to; the SWCN will be kept for three years, the Site Responsible Manager is responsible for ensuring these are retained onsite.

It has been determined that the proposed project will not have direct or indirect significant effects on the consumption of material assets or creation of waste. Therefore, in accordance with DMRB Guidance document LA 110: Material Assets and Waste, no further assessment is required.

Noise and Vibration

Impacts

Construction

- Noise and vibration levels are expected to increase during nighttime construction hours for properties within 300m of the scheme. This is due to the use of heavy plant and machinery, such as rollers, and increased HGV movements.
- During the works, increased traffic associated with the diversion route is expected to result in elevated noise and vibration levels at properties along the route, particularly those located on the A714.

Operation

- The works are not likely to change the existing baseline noise level post construction for any sensitive receptors. TS2010 road surfacing is shown to have superior durability and noise reducing features compared to standard road surfacing mixes. Vehicle travellers and nearby residential properties will benefit from improved road surfacing as a result of the scheme.
- As there are no changes to traffic volumes, speed, or any changes to road infrastructure it is anticipated that no permanent impacts on noise and vibration are anticipated upon completion of works.

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:

- On-site construction tasks will be programmed to be as efficient as possible, with a view to limiting noise disruption to local sensitive receptors. The noisiest works will be undertaken before 23:00 where possible.
- Effects from noise will be kept to a minimum through the use of appropriate mufflers and silencers fitted to machinery. All exhaust silencers will be checked at regular intervals to ensure efficiency.
- A 'soft start' to works will be in place, whereby plant/machinery/vehicles are started sequentially as opposed to simultaneously.
- The site supervisor will monitor the effects of noise and vibration levels during the works and make necessary working arrangements.

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

- Amey's Environmental Team has notified South Ayrshire Council in advance of the works.
- A letter drop will be delivered to residents within 300m to notify them of upcoming works, timings and duration.
- A media press release will be undertaken to inform residents of the proposed works. Traffic management restrictions/arrangements will also be publicised within the local and wider area.
- The delivery of Amey's Noise and Vibration environmental briefing to all site operatives prior to the works.

With best practice mitigation measures in place, no significant effects on noise and vibration are predicted. Therefore, in line with DMRB Guidance document LA 111: Noise and vibration no further assessment is required.

Population and Human Health

Impacts

Construction

- TM has potential to cause temporary levels of disruption to road users (i.e. congestion and increased travel times).
- Land take is not required for this scheme therefore there will be no impact as a result of permanent or temporary land acquisition from private land, businesses, agriculture, Walkers, Cyclists or Horse riders (WCH) and/or community facilities as a result of the scheme.
- Access to residential properties and Ardwell farm may be impacted by the works.
- Core Path SA2 will not be closed during construction activities.
- Human health determinants such as noise, and air quality will likely experience temporary increases, however, due to the nature and scale of the works no discernible health impact is expected.

Operation

As works will be of a like-for-like nature, no operational impacts are anticipated.

Mitigation

- Local residents and road users will be informed of traffic management restrictions/arrangements and any expected travel delays will be publicised within the local and wider area, in an effort to minimise disturbance to vehicular travellers.
- Site specific control measures regarding noise and vibration, landscape and visual effects and air quality can be found in the relevant sections (above).
- Temporary site lighting used throughout the scheme will be directional and pointed only at the area of works.
- Access to and from residential properties and Ardwell Farm will be maintained as far as reasonably practicable. Where this is not possible, local access will be granted as required.

With best practice mitigation measures in place, no significant effects associated with Population and Human Health are predicted. Therefore, in accordance with DMRB Guidance document LA 112: Population and Human Health, no further assessment is required.

Road Drainage and the Water Environment

Impacts

Construction

- Potential for spills, routine runoff, leaks or seepage of fuels and oils associated with plant to escape and/or leach into the watercourse if not controlled, which may negatively affect the surrounding water environment and surface/ground water quality.
- If not adequately controlled, debris and runoff 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 drainage system, thus having a detrimental effect on the surrounding local water environment.
- Should flooding occur, this may delay the scheduled works.

Operation

As works will be of a like-for-like nature, no operational impacts are anticipated.

Mitigation

The following best practice and pollution prevention measures will be in place:

- All operatives will follow of [SEPA's Guidance for Pollution Prevention](#) (GPP) documents.
- All debris which has the potential to be suspended in surface water and wash into the local water environment will be cleaned from the site following the works.
- Debris and dust generated as a result of the works will be prevented from entering the drainage system. This can be via the use of drain covers or similar.
- Appropriate measures will be implemented onsite to prevent any potential pollution to the natural water environment (e.g., debris, dust, and hazardous substances). This will include spill kits being present onsite at all times, and the use of funnels and drip trays when transferring fuel etc.
- The control room will be contacted if any pollution incidences occur on (available 24 hours, 7 days a week).
- Visual pollution inspections of the working area will be conducted in frequency, especially during heavy rainfall and wind.
- Weather reports will be monitored prior and during all construction activities. In the event of adverse weather/flooding events, all activities will temporarily stop, and only reconvene when deemed safe to do so, and run-off/drainage can be adequately controlled to prevent pollution.
- All storage areas (fuels, machinery, plant, materials) where required will be located/stored:
 - Away (>10m) from surface water drainage systems; and
 - Away from areas that see high vehicular movement (as far as reasonably practicable) to prevent damage by collision or extremes of weather.
 - Fuels stored within a drip tray, bund or other form of secondary containment with at least 110% of the maximum volume of a single container
- Amey's Water Pollution Prevention environmental briefing will be delivered to all site operatives before works start.

With mitigation measures in place, no significant effects are anticipated on the water environment. Therefore, in accordance with DMRB Guidance document LA 113: Road drainage and the water environment no further assessment is required.

Climate

Impacts

- Construction activities may result in GHG emissions being from vehicles, machinery, material use and production, and transportation.
- The use of WMA supports reduced whole-life carbon impacts through a reduced energy demand during production and enabling efficient construction at lower temperatures, compared to hot-mix asphalt (HMA).

Mitigation

The following mitigation measures will be in place:

- Where possible, materials and suppliers will be sourced locally to reduce GHG emissions associated with travel distance.
- Waste disposal will be directed to local licensed facilities.
- Plant, machinery and vehicles will not be left idling when not in use.
- 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 not considered to be significant. Therefore, in accordance with DMRB Guidance document LA 114: Climate, no further assessment is required.

Vulnerability of the project to risks

Construction activities are confined to the carriageway boundary and immediate verges, and maintenance is carried out on a like for like, basis. This will reduce the risk of major accidents or environmental disasters that could negatively impact the surrounding environment.

Improvement of the road surface following carriageway resurfacing works will enhance skid resistance, and thus overall road safety on completion of the scheme.

The new road signs, VRS, and road markings will decrease the likelihood of serious accidents.

It has been determined that the project is not expected to alter the vulnerability of the existing trunk road infrastructure to risk of major accidents or disasters.

Assessment of Cumulative Effects

[Amey's Southwest Current Works Schedule](#) has highlighted that there are no works scheduled along the A77 in proximity to the scheme extents within the proposed timescales.

[South Ayrshire Council's Planning Portal](#) has not identified any extant planning applications surrounding the scheme extents that would result in any in-combination effects.

[The Scottish Road Works Commissioner](#) also does not identify any scheduled works that are set to take place within the scheme extents, within the same timescale, of the proposed works.

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

Overall, it is unlikely the proposed works will have a significant cumulative effect with any other proposed works in the local area. Considering the nature and scale of the maintenance works being undertaken, no cumulative or in combination effects are anticipated.

Assessments of the Environmental Effects

As detailed in the Description of Main Environmental Impacts and Proposed Mitigation section within this Record of Determination, there are no significant effects anticipated on any environmental receptors as a result of the works.

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

- An Environmental Scoping Assessment (ESA) of the scheme, undertaken by the Environment Team at Amey in May 2026.
- A Preliminary Ecological Walkover (PEW) undertaken by the Ecology Team at Amey in June 2026.
- A Habitats Regulations Appraisal (HRA) Stage 1 undertaken by the Ecology Team at Amey in June 2026. Consultation with NatureScot undertaken by Amey's Environment Team in May 2026.

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

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

- As the works will be limited to the like-for-like replacement of the structural components with minor verge works, 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.
- The successful completion of the scheme will afford benefits to carriageway users and residential properties in proximity, due to improved condition and ride quality of the carriageway surface.
- No negative impacts on the environment are expected during the operational phase as a result of works. 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 will decrease post construction.
- 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.
- Works are not expected to result in significant disturbance to protected species that may be present in the wider area.
- At end of life, components will be recycled, reducing waste to landfill.
- The design option conveys sustainability benefits by significantly reducing the quantity of maintenance interventions required at the location.

Location of the scheme:

- The scheme will be confined within the existing carriageway boundaries and verges and as a result will not require any land take and will not alter any local land uses.
- Works are not located within an area designated for its specific landscape character or quality.
- The proposed works will not lead to habitat or species fragmentation of the Lendalfoot Hills Complex SAC as the works are taking place within the existing A77 carriageway boundary. No interference with the key relationships that define the structure of the European Sites is anticipated and there is no requirement for land take within the European Site as a result of the scheme, as all works will be confined to the existing A77 carriageway boundary.
- As works are located within the Girvan Foreshore GCRS and the Girvan to Ballantrae Coast SSSI consultation with NatureScot has been carried out on 27 May 2026. This consultation concluded that the natural heritage interests within Girvan to Ballantrae SSSI and Girvan Foreshore GCRS are unlikely to be impacted by the works, therefore, consent is not required.

Characteristics of potential impacts of the scheme:

- Containment measures of the working area will be in place to prevent debris or pollutants from entering the surrounding water environment and drainage.
- Measures will be in place to ensure appropriate removal and disposal of waste and any uncontaminated road planings will be recycled in accordance with Guidance on the Production for Fully Recovered Asphalt Road Planings.
- Materials will be derived from recycled, secondary or re-used origin as far as practicable within the design specifications.
- Any potential impacts of the works are expected to be temporary, non-significant, and limited to the construction phase.
- No in-combination effects have been identified.

References of supporting documentation

The following environmental surveys/reviews have been undertaken:

- An ESA of the scheme, undertaken by the Environment Team at Amey in May 2026.
- A PEW undertaken by the Ecology Team at Amey in June 2026.
- A HRA Stage 1 undertaken by the Ecology Team at Amey in June 2026.

- Consultation with NatureScot undertaken by Amey's Environment Team in May 2026.

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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