

# Environmental Impact Assessment Record of Determination

A77 Dutch House South Approach & Exit

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#### **Project Details**

#### **Description**

Resurfacing works are required to maintain the safety and integrity of a section of the A77 carriageway (southbound and northbound), northeast of Monkton in South Ayrshire. The works are required as the carriageway is currently displaying various structural defects, such as fretting, rutting, cracking and patching.

The scheme area is approximately 1.2 hectares.

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

- Implementation of Traffic Management (TM) and marking out site (TM plant);
- Removal of existing surfacing and milling to agreed depths (planer, wagon, lorries);
- Resurfacing to the existing road levels using TS2010 aggregate, AC binder, AC base (paver, roller);
- Reinstatement of road markings, linings, and studs (lorries/wagons and plant);
   and,
- Removal of TM.

The proposed construction is programmed to be undertaken and completed within the 2025-2026 financial year for approximately nine working shifts. The works will be undertaken during night-time and day-time working hours.

TM will likely consist of nine full night closure with lane closures during daytime hours. A diversion route will be put in place for both the SB and NB closures utilising the B743, A79, A78 then rejoining the A77 at the Dutch House roundabout.

#### Location

The scheme is located along a section of the A77 northbound (NB) and southbound (SB) carriageways. The scheme extents can be found at the following National Grid References (NGRs):

- NB Start NS 37050 28091
- NB End NS 36612 28654
- SB Start NS 36642 28668
- SB End NS 36900 28290

See Figure 1 below.



Figure 1: Scheme Location Map

#### **Description of local environment**

#### Air quality

The scheme is located along a rural section of the A77 NB and SB carriageways, northeast of Monkton in South Ayrshire. The immediate area is partially bordered by mature deciduous trees, while in areas with sparse vegetation, large adjoining agricultural fields are visible.

Baseline air quality is predominantly influenced by traffic flow along the A77, with secondary sources from agricultural activities. Manual count point 10750, located approximately 93m southeast of the scheme, shows that in 2024, the Annual Average Daily Flow (AADF) for all motor vehicles was counted at 33,074 with 1,576 (4.77%) Heavy Goods Vehicles (HGVs).

There are no residential properties located within 200m of the scheme extents. The nearest main town is Monkton, located approximately 202m to the west. Sensitive receptors include Premier Inn Ayr/Prestwick Airport Hotel is located approximately 73m southwest of the scheme extents and the Dutch House Caravan Park located 152m southwest of the scheme.

South Ayrshire Council have not declared any <u>Air Quality Management Areas</u> (<u>AQMAs</u>). There are no real-time <u>Air Quality Monitoring Stations</u> (Air Quality in Scotland) or any sites registered on the <u>Scottish Pollutant Release Inventory (SPRI)</u> located within 1km of the works area.

#### **Cultural** heritage

A desk-based assessment has been undertaken using <u>Pastmap</u> 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. Full details of designated and non-designated assets can be found in Table 1 and Table 2 below.

Table 1: Designated Cultural Heritage Assets within 300m

NAME	REFERENCE NUMBER	DESCRIPTION	DISTANCE FROM SCHEME
Macrae's Monument	LB14253	Listed Building – Cat A	Approx. 280m west of the scheme extents

Table 2: Non-Designated Cultural Heritage Assets within 200m

NAME	REFERENCE NUMBER	DESCRIPTION	DISTANCE FROM SCHEME
Dutch House Roundabout	315258	Canmore - Field Boundary(S) (Period Unassigned)	Approx. 110m west of the scheme extents
Prestwick, Mill Dams	204993	Canmore - Dam (Period Unassigned), Mill (Period Unassigned)	Approx. 70m east of the scheme extents
Prestwick, Mill Dams / Powbank Mill; Millers Dam	42128	Historic Environment Record (HER) - Industrial; Dam; Mill	Approx. 70m east of the scheme extents
Historic Environment Assessment: Monkton, South Ayrshire	4890	HER - Archaeological Event Record	Adjacent to the scheme extents
Archaeological Evaluation: Tarbolton Road, Monkton - Phase 1	6701	HER - Archaeological Event Record	Approx. 77m southwest of the scheme extents
Archaeological Evaluation: Park & Ride, Monkton, South Ayrshire	4228	HER - Archaeological Event Record	Approx. 50m northwest of the scheme extents
Desk- Based Assessment: Land At Kilmarnock Road, Monkton	6683	HER - Archaeological Event Record	Approx. 50m northwest of the scheme extents
Dutch House Roundabout	90662	HER - Field Boundary(s) (Period Unassigned)	Approx. 95m west of the scheme extents

No World Heritage Sites or Inventory Battlefields are recorded within 300m of the scheme extents.

#### Landscape and visual effects

#### **Landscape**

The scheme lies within a rural setting, characterised by large areas of agricultural land, with some areas partially bordered by mature deciduous trees.

<u>Scotland's Environment Database</u> has identified the following Ancient Woodland Inventory (AWI) sites within 500m of the scheme extents:

- Unnamed Ancient Woodland, (ID: 26134), is located approximately 83m north of the works.
- Crow Wood Ancient Woodland, (ID: 26137), is located approximately 341m northeast of the scheme extents.
- Unnamed Ancient Woodland, (ID: 26142), is located approximately 447m southeast of the works.

There are no <u>Tree Preservation Orders (TPOs)</u>, or any <u>National Scenic Areas</u> (NSAs) located within 500m of the scheme extents.

<u>Scotland's Historic Land Use Assessment (HLA) Map</u> has identified that the land within the scheme extents has been previously used as '<u>Motorway and Major</u> Roads'.

<u>Scotland's Landscape Character Type (LCT) Map</u> has highlighted that the LCT within the scheme extents, along the A77, can be categorised <u>as '66 - Agricultural Lowlands - Ayrshire'</u> characterised by the following:

- Dense network of often very rural minor roads.
- Several major road corridors.
- Number of larger towns and villages with historic cores surrounded by more modern development.
- Settlement pattern historic in origin based upon larger, more self-contained farmsteads set in a hinterland of fields.
- Fields often regular in shape and enclosed by beech or hawthorn hedges.
- Landcover is predominantly pastoral, with some arable on lower and better soils.
- Generally small to medium scale landscape.
- Complex landform.

#### **Visual**

Due to the limited presence of vegetative screening along the scheme extents, several residential properties particularly those situated along Wellington Road are anticipated to experience views of the proposed works. The study area contains no other receptors with visual sensitivity.

<u>Core Path SA8</u> is located approximately 45m north of the scheme extents. This path is not expected to have views of the works.

Transient visual receptors include road users (motorists, public transport users) travelling along the A77, who will experience brief and intermittent views of the scheme. Typically, the views from the carriageway are sporadic small pockets of woodland, with agricultural fields in the wider area.

#### **Biodiversity**

#### **Protected areas**

There are no local, national or European designated biodiversity sites located within 2km, or with hydrological connectivity to the scheme. Additionally no Sites of Special Scientific Interest (SSSIs), Local or National Nature Reserves, Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites have been identified within 200m (Sitelink).

<u>Scotland's Environment Database</u> has identified the following landscape features within 500m of the scheme extents:

- Unnamed Ancient Woodland, (ID: 26134), is located approximately 83m north of the works.
- Crow Wood Ancient Woodland, (ID: 26137), is located approximately 341m northeast of the scheme extents.
- Unnamed Ancient Woodland, (ID: 26142), is located approximately 447m southeast of the works.

No Tree Preservation Orders are located within 500m of the scheme extents.

#### **Field survey**

An ecological field survey has been scoped out by a qualified ecologist due to the transient nature of the works and their containment within the trunk road boundary, indicating a low likelihood of significant ecological impact.

#### **Invasive plants**

Transport Scotland's Asset Management Performance System (AMPS) and <u>National Biodiversity Network (NBN) Atlas</u> has recorded Rosebay willowherb (*Chamerion angustifolium*), an injurious weed and Transport Scotland (TS) target species along the verge of SB and NB A77 carriageway within the extents of the scheme.

No Invasive Non-Native Species (INNS) are recorded within 500m of the scheme extents.

#### **Geology and soils**

#### **Geology**

There are no Geological Conservation Review Sites (GCRS), Local Geodiversity Sites or any Geological SSSIs that have connectivity or are within 200m of the scheme extents as noted by NatureScot's Sitelink.

According to <u>Britain's Geology Viewer</u>, the geology along the A77, within the scheme extents, consists of the following:

#### Bedrock Geology

 Prestwick-mauchline Sill-complex - Analcime-microgabbro, olivine. Igneous bedrock formed between 66 and 23.03 million years ago during the Palaeogene period.

#### Superficial Deposits

• Till - Diamicton. Sedimentary superficial deposit formed between 2.588 million years ago and the present during the Quaternary period.

#### Soils

<u>Scotland's Soils Map</u> has identified that the soil type within the scheme extents consists of 'Non calcareous gleys'.

#### Land use

The national scale land capability for agriculture can be classed as '3.2' within the works area. This land is capable of average production though high yields of barley, oats and grass can be obtained. Grass leys are common.

There are no operational landfill sites located within 1km of the scheme extents.

#### Material assets and waste

#### **Materials**

Materials required are detailed within Table 3 below.

Table 3: Key Material Required for Activities

Activity	Materials Required	Sources
Construction	<ul> <li>TS2010 Surface Course</li> <li>AC20 Bituminous Binder</li> <li>AC32 Bituminous Base</li> <li>White lining</li> <li>Road studs and paint</li> <li>Fuels and oils</li> </ul>	<ul> <li>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.</li> <li>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.</li> </ul>

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**

No coal tar was identified during investigation stages. Anticipated wastes from the proposed works are listed in Table 4 below.

Table 4: Key Waste Produced by Activities

Activity	Waste Produced	Disposal
Construction	<ul><li>Asphalt planings</li><li>Old road studs and paint</li></ul>	Uncontaminated road planings generated as a result of the required works, will be fully

Activity	Waste Produced	Disposal
		recycled in accordance with the criteria stipulated within the Scottish Environment Protection Agency (SEPA) document 'Guidance on the Production of Fully Recoverable Asphalt Road Planings.
		<ul> <li>At this time surfacing may be planed and reused in-situ, exsitu or recovered as a feedstock in the manufacture of new surfacing material or other products.</li> <li>Paint will be disposed of as special waste.</li> </ul>

The proposed scheme does not require a Site Waste Management Plan (SWMP) as the total value is under £350,000.

#### Noise and vibration

The scheme is located in a predominantly rural area, where the baseline noise levels are primarily influenced by traffic on the A77, with secondary sources from agricultural activities and Glasgow Prestwick Airport located 449m south of the works. For the AADF details, please refer to the Air Quality section above.

Over 100 properties are situated along the diversion route, with the nearest located directly adjacent to the edge of the carriageway.

<u>Scotland's Noise Map</u> has shown that the noise level (L<sub>den</sub>) during daytime hours, recorded 50m from the carriageway, is 60dB, the noise level within the scheme extents has been recorded to be 75dB. During nighttime hours, the noise level (L<sub>night)</sub> recorded 50m from the carriageway, is 60dB, the noise level within the scheme extents has been recorded to be 69dB.

The works are not located within a Candidate Noise Management Area (CNMA) as defined by the <u>Transport Scotland's Transportation Noise Action Plan (TNAP) (2019-2023).</u>

#### Population and human health

The primary land use within the surrounding area is used for agriculture, community and residential purposes. There are approximately 20 residential properties located

within 300m of the scheme extents, the closest being 202m west. Other sensitive receptors include the Premier Inn Ayr/Prestwick Airport Hotel located approximately 73m southwest of the scheme extents and the Dutch House Caravan Park located 152m southwest of the scheme. The closest town is Monkton located approximately 202m west at the closest point.

There are over 100 properties located along the diversion route, the closest being located adjacent to the carriageway boundary.

There are no direct access/egress points to any residential properties or community facilities within the scheme extents. However, the A77 carriageway within the scheme extents, is a main point of connection to the Premier Inn Ayr/Prestwick Airport Hotel and the Dutch House Caravan Park.

Core Path SA8 is located approximately 45m north of the scheme extents.

There are no <u>National Cycle Network Routes</u>, or any <u>bridleways</u> located within 300m of the scheme extents.

There are no footways, bus stops, streetlights, or any Public Rights of Way (PRoW) located within the scheme extents. Two laybys are located adjacent to the scheme extents at NGRs NS 36775 28469 and NS 36717 28509.

The works will be fully contained within the carriageway boundary, requiring no land take from residential, agricultural, business, or community land, and furthermore will not impact access or egress to any such land.

#### Road drainage and the water environment

#### **Surface water**

Pow Burn, (ID: 10746), classified under the Water Framework Directive (WFD) (SEPA's Water Classification Hub) is located 71m southeast of the scheme extents. The watercourse is currently assessed as having a moderate overall ecological potential. Dow's Burn, an unclassified watercourse, is located approximately 284m northwest of the scheme extents. There are no other classified or unclassified watercourses within 500m or any ponds within 250m of the works.

Drainage within the scheme extents, along the A77, consists of filter stones.

#### Flood risk

<u>SEPA's Flood Risk Map</u> has identified localised areas within the scheme extents of both carriageways that are susceptible to a low to high (0.1%-10%) chance of surface water flooding. Pow Burn has a high (10%) chance of river water flooding; however, this does not flow within the scheme extents.

#### **Groundwater**

The scheme lies within Ayr groundwater body, (ID: 150669), which was classified as having an overall poor condition under the WFD (<u>SEPA Water Classification Hub</u>)).

The works do not fall within a Scottish Government Nitrate Vulnerable Zone (NVZ).

#### **Climate**

#### **Carbon Goals**

The Climate Change (Scotland) Act 2009, as amended by the <u>Scottish Carbon</u> <u>Budgets Amendment Regulations 2025</u> 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 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 <u>Mission Zero for Transport</u>. 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 have set carbon goals for the SW NMC contract 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**

- TM implemented during the scheme may result in an increase in vehicle emissions through idling vehicles and increased congestion. This may result in a temporary deterioration in local air quality.
- During construction, including removal of the road surface, there is the potential for an increase in dust and emissions from plant and machinery and an increase in airborne particulate matter. This is likely to cause a slight deterioration in air quality within the local area.
- Residents along the diversion route roads may experience a deterioration in air quality due to the increased volume of traffic, particularly those located adjacent to the carriageway boundary.
- 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 as works are like-for-like.

#### **Mitigation**

- Mitigation measures will follow best practice from the Institute of Air Quality Management (IAQM), from the '<u>Guidance on the assessment of dust from</u> 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;
  - Any stockpiled excavated material will be covered to fenced to prevent wind whipping;
  - 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**

- 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 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 located 280m from the scheme extents.
- The non-designated assets listed in Table 3 are not expected to be impacted, as
  the works involve like-for like resurfacing. Additionally, the original construction of
  the A77 is likely to have removed any archaeological remains. Overall, the
  potential for uncovering new assets is considered low.

#### **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.

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**

- There will be no operational impacts on visual receptors as works entail the likefor-like resurfacing of the A77 carriageway within the scheme extents.
- There will likely be a short-term impact on the landscape character and visual amenity of the site as a result of the presence of construction plant, vehicles, and TM.
- Views from the carriageway will be temporarily affected during construction due to the presence of works, TM and plant.

#### **Mitigation**

- Throughout all stages of the works, the site will be kept clean and tidy, with materials, equipment, plant and wastes appropriately stored, reducing the landscape and visual effects as much as possible.
- 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.
- Temporary site lighting will be directional and pointed at the works area only.

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**

- An increase in noise levels from construction activities and misdirected site lighting has the potential to disturb any protected species within the scheme surroundings.
- Works will be confined to the carriageway boundary, involving like-for-like carriageway resurfacing with no site clearance or earthworks. As such, there is limited potential to spread or introduce INNS or target species.
- As works will be contained within the carriageway boundary, the Ancient Woodlands and watercourses listed above will likely not be impacted significantly.

#### **Mitigation**

The following mitigation measures will be in place:

- 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.
- 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.
- '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.
- As part of the Network Management Contract, Amey, on behalf of transport Scotland, has been asked to keep a record of various INNS and target species, including rosebay willowherb. Works will not be carried out in the carriageway verge where these are present, if this is not possible and works are likely to result in the spread of this species through disturbance, Amey's Landscaping Team will be consulted.
- Should a protected species be spotted during construction, works will stop, and the Amey ET&S Team will be contacted.
- Additional pollution prevention measures are detailed in the Road Drainage and the Water Environment section.

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**

- All works are contained to the engineered layers of the existing carriageway, resulting in limited potential for soil disturbance.
- There will be no impacts upon the surrounding agricultural land.
- There is a potential for soils from accidental spills or leaks of fuels and oils from construction plant and machinery. However, with mitigation in place the impact is considered minor and temporary.

#### **Mitigation**

The following mitigation measures will be in place during the works:

- Vehicles and materials will not be stored or parked on grass verges where possible. Where damage occurs, reinstatement will be undertaken.
- Pollution prevention measures outlined in the Road Drainage and the Water Environment section will be followed during construction.
- In the event of a major spill, SEPA will be contacted.

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**

- Transportation and recovery of materials/waste will require energy deriving from fossil fuel, a non-renewable source.
- 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.
- There is potential for the works to contribute to resource depletion through use of transportation of primary materials such as aggregates.
- There will be an increase in waste sent to landfill sites if waste materials are not recycled or reused.

#### **Mitigation**

- The Contractor will comply with all 'Duty of Care' requirements, ensuring that any surplus materials or wastes are stored, transported, treated, used, and disposed of safely without endangering human health or harming the environment. All waste transfer notes and/or waste exemption certificates will also be completed and retained
- 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.
- Materials will be delivered on site when required.

- Uncontaminated road planings arising from the works will be fully recycled under a SEPA Paragraph 13(a) Waste exemption in accordance with guidance on the Production for Fully Recovered Asphalt Road Planings.
- 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.

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**

- Noise and vibration levels are expected to increase during nighttime construction hours for properties within 300m of the scheme and those near the diversion route, particularly those adjacent to the diversion route carriageways. This is due to the use of heavy plant and machinery, such as rollers, and increased HGV movements. However, these levels are not anticipated to significantly exceed existing ambient conditions or cause notable disturbance.
- TS2010 road surfacing offers enhanced durability and noise reducing properties compared to standard surfacing materials. As a result, both road users and nearby receptors are expected to benefit from the improved surface quality over the long term.
- Post- construction, the works are not expected to alter existing baseline noise levels for any sensitive receptors.

#### **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 Energy Transition & Sustainability 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.
- Amey's environmental briefing on Noise and Vibration will be delivered to site operatives prior to construction.

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

#### Population and human health

#### **Impacts**

- During construction access to residential properties will not be restricted by the works.
- Traffic management (TM) measures implemented during the works have the
  potential to result in temporary disruption to road users, including increased
  congestion and extended travel times. Additionally, journey distance may be
  lengthened due to the use of the diversion routes, however, this will be for the
  duration of the works only.
- No land acquisition, either permanent or temporary, is required for the delivery of this scheme. Consequently, there will be no direct impacts on private property, commercial facilities, agricultural land, or users of active travel routes including walkers, cyclists, and horse riders (WCH), nor on community facilities.
- Core Path SA8 will likely not be impacted by the works as works will be restricted to the carriageway boundary.

#### **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.

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**

- If not adequately controlled, debris and run off from the works could be suspended in the surface water. In the event of a flooding incident or heavy rainfall, this debris may be mobilised and could enter the road drainage having a detrimental effect on the surrounding local water environment.
- Potential for spills, leaks or seepage of fuels and oils associated with plant to escape and reach drainage systems and watercourses if not controlled, which may adversely impact the water environment.
- The resurfacing works will not increase flood risk as they are limited to the
  existing impermeable carriageway surface, with no alteration to drainage
  infrastructure or surface water runoff patterns. No other post construction impacts
  are anticipated.

#### **Mitigation**

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

- 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.
- Prior to works commencing, all operatives will be aware of <u>SEPA's Guidance for</u> <u>Pollution Prevention (GPP)</u>.

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.

#### **Mitigation**

The following mitigation measures will be in place:

- 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 neutral. 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 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.

Considering the above and mitigation measures adhered to, the vulnerability of the project to major accidents and disasters is considered to be low.

#### Assessment cumulative effects

<u>Amey's Current Works Schedule</u> has highlighted that there are no works scheduled along the A77 in proximity to the scheme extents within the proposed timescales.

<u>The Scottish Road Works Commissioner</u> 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.

<u>South Ayrshire Council's Planning Portal</u> has not identified any extant planning applications surrounding the scheme extents that would result in any in-combination effects.

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 have been undertaken:

 An Environmental Scoping Assessment (ESA) of the scheme, undertaken by the Energy Transitions & Sustainability Team at Amey in August 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:

- 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.
- 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 can 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 (total area 1ha.) 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.
- Works are not located within 2km, or with hydrological connectivity to any European designated sites.
- The scheme is not situated in whole or in part in a sensitive area.

#### 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.

#### **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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