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Environmental Impact Assessment Record of Determination

A9 Stockbridge Slips to Allan Water NB

Contents

Project Details

Description

The works are required to maintain the safety and integrity of a stretch of the A9 carriageway (northbound lanes) between Stockbridge Slips and the Allan Water, north of Dunblane, Stirlingshire. The carriageway is presenting signs of continual deterioration with signs of crazing, cracking, potholes and fretting throughout the scheme extents. Addressing these defects will provide an extended pavement life and will improve road safety and ride quality. The scheme covers an approximate area of 13,500m^2.

Construction activities will entail the resurfacing of the A9 carriageway from Stockbridge Slips to the Allan Water with the activities as follows:

- Installation of Traffic Management (TM);
- Milling of carriageway to agreed depths;
- Resurfacing of the carriageway to existing road levels using TS2010 aggregate (site class 1 & 3), AC20 binder, AC32 base;
- Reinstatement of road markings, linings and studs; and
- Removal of TM.

The following (but not limited to) plant/machinery/vehicles may be used throughout the scheme:

- Planer;
- Wagon(s);
- Bitumen tank;
- Extrusion liner;
- Paint tanker;
- 2CX excavator/pecker;
- Paver; and
- Roller(s)

The proposed construction is programmed to be completed within this financial year (April 2024 to March 2025) for a duration of ten days during both day and night-time hours.

TM for the scheme will compromise of northbound lane closures on the A9 carriageway.

Location

The scheme is located within an urban section of the A9 carriageway, north of Dunblane at the approximate National Grid References (NGRs) detailed below. The scheme location is illustrated in Figure 1:

- NN 78567 02841
- NN 77217 02047

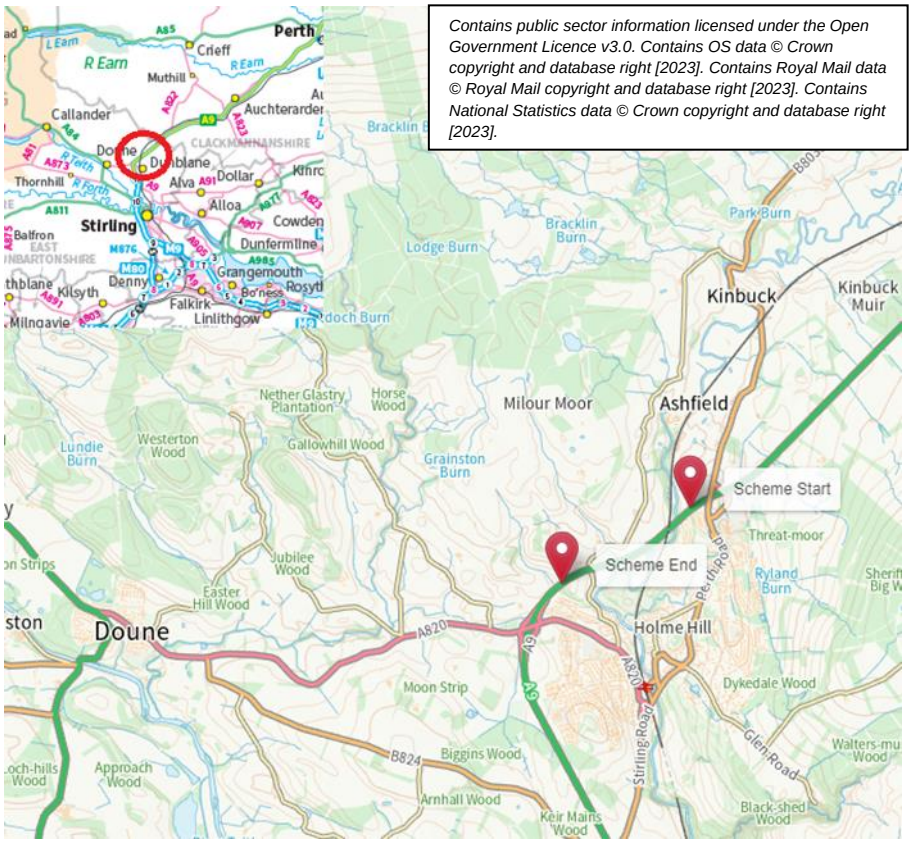

Figure 1: Scheme Location.

Description of local environment

Air quality

The scheme is located within a semi-urban stretch of the A9. Baseline air quality levels are likely to be influenced by the A9 carriageway and surrounding agricultural activities.

There are approximately 100 residential properties located within 200m of the scheme extents. These properties are located within the town of Dunblane with the closest being located approximately 30m south of the NB carriageway on Glassingall Road. With regard to non-residential air quality sensitive receptors, the Dunblane to Ashfield riverside public path, the Laighills Public Park and the Dunblane Cricket Club are all located within 200m of the scheme extents.

The Annual Average Daily Flow (AADF) in 2022 for the A9 carriageway within the scheme extents (automatic count point: 80405), accounted for 29,589 vehicles, with 3,182 of these being Heavy Goods Vehicles (HGVs).

Stirling Council has not declared any Air Quality Management Areas (AQMAs).

The Scottish Pollutant Release Inventory (SPRI) has not identified any recorded sources of pollution release within 1km of the scheme extents. The closest identified source is located approximately 4.75km south in Bridge of Allan.

Cultural heritage

A desktop study utilising the PastMap resource and a study area of 300m has identified the Battle of Sheriffmuir Battlefield site (Ref.: BTL17) located approximately 250m east of the scheme extents.

This resource has also identified the following undesignated culturally significant assets within 200m of the scheme extents:

- Barbush Farm Canmore (Ref.: 24734) and Barbush Quarry Canmore (Ref.: 24732) located approximately 190m south of the scheme extents;
- Auchinlay Holdings Historic Environment Record (HER) (Ref.: 4755) located approximately 190m north of the scheme extents;
- Lower Auchinlay HER (Ref.: 1489) located approximately 120m north of the scheme extents;
- Laigh Hill HER (Ref.: 4756) located approximately 100m south of the scheme extents; and

- Dunblane, Auchinlay Road, Glenorchard Canmore (Ref.: 226029) located approximately 180m south of the scheme extents.

There are no Scheduled Monuments, Garden and Designed Landscapes, Listed Buildings, Conservation or World Heritage Sites within 300m of the scheme.

Landscape and visual effects

The scheme is located within a semi-urban area along a stretch of the A9 carriageway. This scheme is not located within a National Park, National Scenic Area or any other area designated for its landscape character or quality (NatureScot's Sitelink).

The Landscape Character Type (LCT) within the scheme extent is categorised as Lowland River Valleys - Central (LCT 152) with the following key characteristics:

- Well-defined river corridors, most with flat valley floor enclosed by often commanding hills;
- Strong topographic and visual identity, with varying scale and character;
- Glacial terrain and deposits located on valley margins, often subject to mineral extraction;
- Relatively high proportion of tree cover, with roadside and hedgerow trees and semi-natural woodland;
- Dense areas of coniferous forest cover the slopes surrounding the reservoir in the Upper Carron Valley;
- Road corridors often running parallel to river corridor form key linear features;
- Settlement often closely linked to the river corridor and parallel road corridors;
- Intensive settlement and urban development on margins of valleys south and north of Firth of Forth;
- Predominance of traditionally managed estate, policy and designed landscapes;
- Nature conservation importance of river and associated habitats;
- Frequently enclosed and focussed views along the river valley; and
- Visibility of remnant derelict land, motorway and road corridors, power lines, wind farms and industrial sites from the urban fringe of Falkirk/Denny.

Historic Environment Scotland's HLAMap has highlighted the surrounding landscape to consist of a combination of holdings, rectilinear fields and farms, urban areas and managed woodland.

Scotland's Ancient Woodland Inventory (AWI) has identified the following ancient woodlands within 500m of the scheme extents:

- Unnamed Long-established (of plantation origin) woodland (site ID: 81) located approximately 400m north of the scheme extents; and
- Unnamed Ancient (of semi-natural origin) woodland (site ID: 85) located within the scheme extents surrounding Laigh Hill.

No trees under a Tree Protection Order (TPO) have been identified within 500m of the scheme extents.

Views to and from the road will be visually impacted for the duration of the works due to the presence of TM, plant, machinery and non-road mobile machinery (NRMM). However, whilst there are properties present (mostly to the south of the carriageway within Dunblane), these are largely screened from the carriageway work site by natural screening (such as woodland and the cut of the carriageway), and thus no significant visual impacts are anticipated and 'Landscape and Visual Effects' has been scoped out requiring further assessment.

Biodiversity

The immediate areas surrounding the scheme extents contains patches of mature woodland and scrub separated from the A9 carriageway by low-lying grassland. These areas of woodland/scrub separate the carriageway from agricultural fields and the town of Dunblane.

Scotland's AWI has identified the following ancient woodlands within 500m of the scheme extents:

- Unnamed Long-established (of plantation origin) woodland (site ID: 81) located approximately 400m north of the scheme extents; and
- Unnamed Ancient (of semi-natural origin) woodland (site ID: 85) located within the scheme extents surrounding Laigh Hill.

No trees under a TPO have been identified within 500m of the scheme extents.

NatureScot's Sitelink resource has identified the River Teith Special Area of Conservation (SAC) (site ID: 8367) located approximately 1.85km west of the scheme extents. This resource has also identified the Kippenrait Glen SAC (site ID: 8284) which is located approximately 3.2km south of the scheme extents. This site is also designated as a Site of Special Scientific Interest (SSSI).

The NBN Atlas resource has identified records of the following Invasive Non-Native Species (INNS) and target plant species within 500m of the scheme extents:

- Giant hogweed *(Heracleum mantegazzianum);*
- Rhododendron *(Rhododendron ponticum);* and
- Rosebay willowherb *(Chamerion angustifolium).*

Amey's NE INNS Map resource has identified the presence of Giant hogweed, Rosebay willowherb and Common ragwort *(Senecio jacobaea)* within the scheme extents.

It is considered unlikely that any terrestrial mammal species of conservation importance are associated with permanent habitat or resting places within the area of likely construction disturbance. In addition, the nature of the scheme is contained within the carriageway boundary involving like-for-like works within already engineered layers and as such a field survey has been ruled out, and a desktop study has been deemed sufficient for this assessment.

Geology and soils

The scheme does not lie within or have connectivity to any Geological Conservation Review Sites (GCRS), geological SSSIs, or Local Geodiversity Sites (LGS) (Sitelink).

The local soil type of scheme extents is recorded as brown earth (Scotland's Soils).

Bedrock within scheme extents is comprised of the 'Dunblane Sandstone Member – Sandstone.' This type is formed of sedimentary bedrock of which was formed between 419.2 and 393.3 million years ago during the Devonian period. (British Geological Survey Geology Viewer).

Superficial deposits within extents comprise of the following sedimentary deposits:

- Till, Devensian - Diamicton. Sedimentary superficial deposit formed between 116 and 11.8 thousand years ago during the Quaternary period; and
- Glaciofluvial Ice Contact Deposits - Gravel, sand and silt. Sedimentary superficial deposit formed between 2.588 million years ago and the present during the Quaternary period.

As a result of the works taking place strictly within made ground within the A9 carriageway boundary, it has been determined that the project does not carry the potential to cause direct or indirect impact to geology or soils. As such, impact has

been assessed as being ‘no change’ and has been scoped out of requiring further assessment.

Material assets and waste

The works are required to resurface the worn carriageway and reinstate road markings and studs. Materials used will consist of:

- Bituminous surfacing (TS2010, binder/base);
- Road marking materials (thermoplastic road marking paint) and studs;
- Vehicle fuel;
- Oil; and
- Lubricant.

Wastes are anticipated to be planings from the carriageway surface course, with no coal tar recorded from coring logs within scheme extents. The Contractor is responsible for the disposal of road planings, and this will be registered in accordance with a Paragraph 13(a) waste exemption issued by the Scottish Environment Protection Agency (SEPA), as described in Schedule 3 of the Waste Management Licensing Regulations 2011.

This scheme value is in excess of £350k and therefore a Site Waste Management Plan (SWMP) will be produced.

Noise and vibration

The scheme lies within a semi-urban stretch of the A9 carriageway. Baseline noise levels surrounding the scheme extents are likely to be influenced by the A9 carriageway, residential activities and agricultural activities.

There are multiple (approximately 175) residential properties within 300m of the scheme extents with the closest of these being approximately 30m from the northbound carriageway on Glassingall Road. With regard to non-residential noise sensitive receptors, the Dunblane to Ashfield riverside public path, the Laighills Public Park and the Dunblane Cricket Club are all located within 300m of the scheme extents.

The AADF in 2022 for the A9 carriageway within the scheme extents (automatic count point: 80405), accounted for 29,589 vehicles, with 3,182 of these being HGVs.

Scotland's Noise Map notes the day-time noise levels surrounding the scheme extents within 120m to be between 60 – 75dB (Lden). Modelled night-time noise levels (Lnight) within 130m of the scheme range from 50 – 70B.

The works do not fall within a Candidate Noise Management Area (CNMA), as defined by the Transportation Noise Action Plan (Road Maps) Transportation Noise Action Plan (TNAP).

Population and human health

The works are located within a semi-urban section of the A9 carriageway, north of the town of Dunblane, Stirlingshire. The carriageway surrounding the scheme extents connects areas such as Dunblane, Kinbuck, Ashfield and Blackford with cities such as Stirling and Perth. Whilst larger towns such as Dunblane play host to medical practices, places of worship, educational facilities and basic amenity facilities including fuel garages and shops, the cities of Perth and Stirling contain more complex facilities in greater abundance.

Over 200 properties are located within 500m of the scheme extents. Mostly contained within the town of Dunblane. The closest of these properties is located approximately 30m south of the scheme extents on Glassingall Road, Dunblane. Multiple recreational facilities are located within 500m of the scheme extents including the Dunblane to Ashfield Public Path, Laighills Public Park, Dunblane Cricket Club and Dunblane Rugby Club.

Stirling Council Core Path 9078/Du/36 runs underneath the A9 carriageway within the scheme extents via an underpass. Other core paths within the town of Dunblane are present within 500m of the works however, these are linked to the aforementioned core paths running below (and core path 9078/Du/32 of which runs above the A9 200m north) the scheme extents. National Cycle Network (NCN) Route 765 is present approximately 430m south of the scheme extents within the town of Dunblane.

The carriageway surrounding the scheme extents is not street-lit, contains no bus stops and no crossover points. Laybys are present (northbound and southbound) within the scheme extents. No pedestrian footways or access/egress points are present are present within the scheme extents. An on/off-slip is present approximately 100m beyond the scheme's southern extent linking the A9 with the A820 carriageway.

Road drainage and the water environment

SEPA's Water Classification Map has identified the Allan Water (site ID: 6833) flowing beneath the scheme extents. This watercourse is classified as having a 'Good' status under the Water Framework Directive (WFD). Various field drains have been identified within 500m of the scheme extents in the fields adjacent to the works. These bodies of water are unclassified under the WFD. The scheme falls within the Dunblane (ID: 150628, recognised as 'Poor' condition), Callander (ID: 150674, recognised as 'Good' condition) and the Teith and Forth Valleys (ID: 150809, recognised as 'Good' condition) groundwater areas.

SEPA's Flood Map has identified areas of the A9 carriageway (NB) within the scheme extents to be at a 'High' (approximately 10% each year) risk of surface water flooding however, these areas are extremely localised and are sporadic throughout the scheme extents. The Allan Water and its surroundings are at a 'High' (approximately 10% each year) risk of river water flooding, as is an area of the carriageway at NGR NN 77782 02267 of which contains a field drain flowing nearby.

The A9 carriageway within the scheme extents is drained via a mixture of top-entry gullies and filter drainage.

The scheme does not fall within the Scottish Government's Nitrate Vulnerable Zones (NVZs).

Climate

The Climate Change (Scotland) Act 2009 sets out the target and vision set by the Scottish Government for tackling and responding to climate change (The Climate Change (Scotland) Act 2009). The Act included a target of reducing CO_2 emissions by 80% before 2050 (from the baseline year 1990). The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 amended the Climate Change (Scotland) Act 2009 to bring the target of reaching net-zero emissions in Scotland forward to 2045 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019).

The Scottish Government has since published its indicative Nationally Determined Contribution (iNDC) to set out how it will reach net-zero emissions by 2045, working to reduce emissions of all major greenhouse gases by at least 75% by 2030 (Scotland's contribution to the Paris Agreement: indicative Nationally Determined Contribution - gov.scot (www.gov.scot)). By 2040, the Scottish Government is committed to reducing emissions by 90%, with the aim of reaching net-zero by 2045 at the latest.

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

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

Construction activities associated with the works have the potential to temporarily cause local air quality impacts surrounding the scheme and local roads where diversion routes will be enforced. Activities undertaken on site may cause dust and particulate matter to be emitted to the atmosphere and increased prolonged vehicle, plant and NRMM presence, and TM may result in higher-than-average emissions. However, taking into account the nature and scale of the works and the following mitigation measures, the risk of significant impacts to air quality are considered to be low, and will be for the duration of the works only.

- Best practice and measures as outlined in the 'Guidance on the assessment of dust from demolition and construction (January 2024)' published by the institute of Air Quality Management (IAQM), which includes the following mitigation relevant to this scheme will be followed:
  - The plan site layout (including plant, vehicles and NRMM) will ensure that machinery and dust causing activities are located away from receptors, as far as reasonably practicable;
  - Materials that have the potential to produce dust will be removed from site as soon as possible, unless being re-used on site (cover or fence stockpiles to prevent wind whipping);
  - Cutting, grinding or sawing equipment will be fitted with or used in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems;
  - Equipment will be readily available on site to clean any dry spillages, and spillages will be cleaned up as soon as reasonably practicable after the event using wet cleaning methods; and
  - When not in use, plant, vehicles and NRMMs will be switched off and there will be no idling vehicles.
- Plant, vehicles and NRMM will be regularly maintained, paying attention to the integrity of exhaust systems to ensure such fuel operated equipment is not generating excessive fumes.
- Green driving techniques will be adopted, and effective route preparation and planning undertaken prior to works.
- Where possible, materials will be sourced locally.

Considering the nature, duration, size, and scale of the scheme, and with implementation of mitigation, the works impacts on local air quality levels during the construction period are assessed to be temporary negligible adverse in magnitude

and therefore, in accordance with DMRB Guidance document LA 105: Air Quality no further assessment is required.

Cultural heritage

Due to the works being contained within the carriageway boundary, and the general distance, it is not anticipated that the scheme will impact the nearby Battle of Sheriffmuir Battlefield site, or the undesignated culturally significant assets present within 200m of the northbound carriageway. The original construction of the A9 carriageway is likely to have removed any archaeological remains that may have been present. Therefore, the potential for the presence of unknown archaeological remains in the study area has been assessed to be low.

- Plant, machinery, NRMM and materials will be stored within the carriageway boundary as far as reasonably practicable. Where areas out with the carriageway are to be accessed, it will be reduced as far as possible, and ideally limited to access on foot.
- If a change to the construction programme onsite is required that involves changes to scheme extents Amey's Environment Team will be notified.
- Should any unexpected archaeological evidence be discovered, works will temporarily halt, and Amey's Environment Team contacted for advice.

Given the nature of the works, works area, and distance from identified cultural heritage features, no significant effects are predicted on cultural heritage. Therefore, in accordance with DMRB Guidance document LA 106: Cultural Heritage, no further assessment is required.

Biodiversity

Construction activities have the potential to have a temporary adverse impact on biodiversity in the area as a result of an increased vehicle presence and the potential for disturbance to protected species, and the potential to pollute habitats from noise and artificial lighting.

All works will be restricted to the A9 carriageway surface and will not entail any verge working or vegetation clearance. There are no earthworks, permanent (or temporary) land-take, accommodation works or site clearance, and there is no requirement to import topsoil. The aforementioned ancient woodland areas will therefore be unaffected by the scheme. There is also limited potential to spread or introduce INNS or injurious flowering plant species due to the containment of the scheme within the carriageway boundary.

The requirement for a Habitats Regulations Appraisal (HRA) was scoped out due to the like-for-like, transient, temporary and non-intrusive nature of the resurfacing works, in combination with the general distance from the works area, no likely significant effects are anticipated to the River Teith and Kippenrait Glen SACs.

With the following mitigation measures in place, the risk of significant impacts on biodiversity are considered to be low:

- As part of the Network Management Contract (NMC) Amey, on behalf of Transport Scotland, keep records of various target species, including Rosebay willowherb and Common ragwort. Works will not cause the spread of these species, if works are likely to result in their spread through disturbance, Amey's landscaping team will be consulted.
- Site lighting will be directional and aimed away from sensitive ecological receptors including woodland and identified watercourses.
- Should a protected species be encountered or move on site, works will be temporarily halted until the animal has moved on, or until Amey's Environment Team can provide advice.
- Amey's Environment Team will be contacted if:
    - There are any sightings of protected species on, or within close surroundings of the active works area;
    - Unforeseen site clearance, or additional construction activities are required; or
    - INNS are found within the work area.
- Plant, vehicles, NRMM and materials will be contained within areas of made/engineered ground, and not parked/stored on grass verges. Reinstatement of any damaged areas will be undertaken (if required) upon completion of the scheme. In unavoidable instances where this may occur, the following mitigations will be implemented to avoid the spread of INNS:
    - Care will be taken not to tread or track excavated materials/soils outwith the areas of excavation as this will increase the spread of INNS.
    - No works will be undertaken within 7m of any visible stand of INNS.
    - If INNS are discovered within the scheme sites and could potentially be impacted by the works, works will cease, and the Amey Environment Team notified.
    - Any areas containing INNS will be within an exclusion zone and appropriately signed.
    - INNS species will not be cut or treated without advice from the landscaping team.
- Toolbox talks on Invasive Plants, Giant Hogweed, and Protected Species will be delivered to all site operatives prior to works commencing.

With best practice mitigation measures in place, no significant effects are predicted for biodiversity. Therefore, in accordance with DMRB Guidance document LA 108: Biodiversity no further assessment is required.

Material assets and waste

The works will result in contribution to resource depletion through use of virgin materials. There is also the potential for impacts as a result of resource depletion through use and transportation of new materials. Greenhouse Gas (GHG) emissions will be generated by material production and transportation to and from site whilst the transportation and recovery of materials/waste will require energy deriving from fossil fuel, a non-renewable source. However, materials will be sourced locally where possible and the design life for the TS2010 surfacing proposed is estimated to be 20 years thus reducing the requirement for maintenance to this section of road over this period. The following mitigation measures will be put in place:

- 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.
- Waste will be stored in suitable containers and covered.
- Where possible, different waste streams will be separated at the source.
- The waste hierarchy (Reduce, Reuse, Recycle and Dispose) will be employed throughout the construction works.
- Following on-site coring investigations and testing, no coal-tar was identified within the surfacing of the carriageway within the scheme extent. As such, road planings generated as a result of the works will be recovered in accordance with the criteria stipulated within SEPA document 'Guidance on the Production of Fully Recoverable Asphalt Road Planings' where possible.
- A SWMP will be prepared to include details on the quantity and type of waste produced, details of how the waste produced will be minimised, details of how materials unsuitable for reuse, recycling or recovery will be disposed of, and a comparison against the Scottish Government's targets for waste reduction and recycling and details of compliance with waste duty of care legislation.

With best practice mitigation measures in place, no significant effects are predicted Material Assets and Waste. Therefore, in accordance with DMRB Guidance document LA 110: Material Assets and Waste, no further assessment is required.

Noise and vibration

Construction activities associated with the works have the potential to cause noise and vibration impacts through the use of equipment and construction vehicles for the

activities. The works will take place during both day- and night-time working hours. This potential disturbance will likely influence noise-sensitive receptors (residential and business) along the diversion route, due to increase in HGV traffic flow, and therefore will likely increase noise levels from ambient levels.

The scheme is anticipated to result in temporary minor adverse noise impacts. Operationally, TS2010 road surfacing is shown to have superior durability and noise reducing features compared to standard road surfacing mixes. Vehicle travellers and nearby local amenity users will benefit from improved road surfacing as a result of the scheme.

The following mitigation measures will be put in place:

- 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. Operatives will avoid extraneous noise whilst on site.
- 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.
- Amey's Noise and Vibration toolbox talk will be delivered to all site operatives before works start.
- A letter drop will be delivered to residents within 300m to notify them of upcoming works, TM, diversion routes, and works timings and duration.

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

Population and human health

During construction, activities undertaken on site may have temporary adverse impacts on local residents, vehicle travellers, and non-motorised road users (NMUs) as a result of construction presence, and associated noise and delays due to traffic management measures and local diversion routes. This will include longer journey times for those travelling within the surrounding area. Access to laybys within the scheme extents are likely to be impacted by the scheme. Due to factors including distance, and core paths being present beneath the scheme extents, it is unlikely that core paths and NCN routes will be impacted by the works.

With the following mitigation measures in place, the risk of significant impacts on population and human health is considered to be low:

- Where appropriate, a communication strategy will be implemented to keep local residents and/or businesses informed of the working schedule, particularly the times and durations of noisy construction activities and diversion routes. This will include:
  - Notification via a letter drop will be issued to local residents prior to commencement of the works, in particular due to nighttime programming and road restrictions;
  - Pre-construction notice of the works and journey planning via social media and on approach to scheme extents.
- Construction lighting will consider the need to avoid illuminating surrounding properties to avoid a nuisance at night, and non-essential lighting will be switched off at night.
- Layby closures will be advertised on approach.
- Stirling Council Environmental Health Team have been contacted in April 2024 to notify of night-time programming.

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

Road drainage and the water environment

During resurfacing works, there is potential for temporary impacts on the water environment (with particular reference to the Allan Water watercourse). Potential changes in water quality from pollution events (either by accidental spillage of sediments, particulate matter, chemicals, fuels or by mobilisation of these in surface water) during works could have a direct or indirect effect on the surrounding water environment.

The following mitigation measures will be put in place to reduce the risk of pollution incidents as a result of works:

- 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 both during and 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.
- Visual pollution inspections of the working area will be conducted frequently, especially during heavy rainfall and wind.
- All storage of materials/fuel and any refuelling activities (if required) will be more than 10m away from any watercourse at all times and placed on a hardstanding surface.

- 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.
- Bunds will be provided around drums up to 205 litres with a buffer of 25% of their total capacity.
- Bunds will be provided around bulk storage to a capacity of 110% of the stored fuel/oil.
- All operatives will be made aware of the location of the Allan Water watercourse.
- Amey's Water Pollution Prevention toolbox talk will be delivered to site operatives prior to works commencing.

With the above mitigation measures in place, it is anticipated that any road drainage and the water environment effects associated with the works are unlikely to be significant. Therefore, in accordance with DMRB Guidance document LA 113: Road drainage and the water environment no further assessment is required.

Climate

Construction activities associated with the works have the potential to cause local air quality impacts as a result of the emission of GHGs through the use of vehicles and machinery, material use and production, and transportation of materials to and from site. The following mitigation measures will be put in place:

- Where possible, materials and suppliers will be sourced locally to reduce GHG emissions associated with travel distance, materials movement, and waste will be disposed at local landfill.
- 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

As the works will be limited to the like-for-like replacement of the carriageway structure, there will be no change in vulnerability of the road to risk, or in severity of major accidents/disasters that would impact on the environment.

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

Assessment cumulative effects

The Scottish Road Works Commissioner's Interactive Map has not highlighted any works during the proposed timescale and at the location of the works.

Stirling Council's Planning Portal has not highlighted any relevant proposed developments or planning applications during the proposed timescale and at the location of the works.

Amey's current programme of works has not highlighted any other works on the A9 that will be undertaken in conjunction with the scheme.

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

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

Assessments of the environmental effects

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 scheme.

The following environmental surveys/reviews have been undertaken:

- An Initial Environmental Review of the scheme, undertaken by the Amey Environment Team in April 2024.

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

This is a relevant project in terms of section 55A(16) of the Roads (Scotland) Act 1984 as it is a project for the improvement of a road and the completed works (together with any area occupied by apparatus, equipment, machinery, materials, plant, spoil heaps, or other such facilities or stores required during the period of construction) exceed 1 hectare in area.

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

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

Characteristics of the scheme:

- Construction activities are restricted to the existing carriageway boundary within made ground and as such there will be no residual change to the local landscape as a result of the works.
- No in-combination effects have been identified.
- In the event that INNS are found on site, measures to prevent potential INNS spread will be implemented.
- Works are not expected to result in significant disturbance to protected species that may be present in the wider area.

- The risk of major accidents or disasters is considered to be low.
- As the works will be limited to the like-for-like replacement of the structural components, there is no change to the vulnerability of the road to the risk or severity of major accidents/disasters that would impact on the environment. No impacts on the environment are expected during the operational phase as a result of works.
- By removing the carriageway defects this will provide this part of the A9 carriageway with another life cycle, and significantly improve the ride quality, which will result in safer conditions, and positive operational impacts for road users.

Location of the scheme:

- Works are not located within an area designated for its specific landscape character or quality.
- The scheme is not situated in whole or in part in a sensitive area.
- The scheme will be confined within the existing carriageway boundary and as a result will not require any land take or alter any local land uses or habitats.
- Any impacts to the local landscape during the construction phase will be minor, temporary and not considered significant. In addition, no operational adverse impacts are anticipated.

Characteristics of potential impacts of the scheme:

- Containment measures of the working area will be in place to prevent debris or pollutants from entering the surrounding environment.
- Any potential impacts of the works are expected to be temporary, non-significant, and limited to the construction phase.
- Measures will be in place to ensure appropriate removal and disposal of waste.
- In the event that INNS are found on site, measures to prevent potential INNS spread will be implemented.
- No in-combination effects have been identified.

References of supporting documentation

- An Initial Environmental Review of the scheme, undertaken by the Amey Environment Team in April 2024.

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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