

Environmental Impact Assessment Record of Determination

**A9 Dualling Programme:
Pass of Birnam to Tay Crossing**

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Project Details

Description

This project is one of a programme of 11 separate A9 Dualling Programme projects proposed between Perth and Inverness. Dualling the Pass of Birnam to Tay Crossing section would be achieved principally through the retention of the existing A9 road and the construction of a parallel carriageway, to provide two lanes in each direction for approximately 8.4km. It is envisaged that two new grade separated junctions would be provided at Birnam and Dalguise, a new roundabout junction at Dunkeld and a left-in left-out junction at The Hermitage. The proposed scheme also includes a number of watercourse crossings via culverts and overbridges (including a crossing of the River Tay), implementation of a new Sustainable Drainage System (SuDS) and new and upgraded local accesses.

To facilitate the construction of the proposed scheme, demolition of two residential properties, two industrial buildings, two industrial units and one commercial property would potentially be required as follows:

- Auchlou Cottage (unoccupied residential property owned by Transport Scotland);
- Foster Contracting (North) Ltd (two industrial buildings and one associated residential property); and
- Birnam Industrial Estate (one commercial property owned by Transport Scotland and let to Aran Bakery and two further industrial units owned by Perth & Kinross Council (PKC) and occupied by Lonely Mountain Skis, Merriman Joinery, Dunkeld Plumbers and T&M Developments).

Location

This project is located between the Pass of Birnam and Tay Crossing in Perth & Kinross, Scotland. A location map is shown in Image 1.

Start: X = 306124.3713, Y = 739399.3989

End: X = 300528.4014, Y = 744664.8721

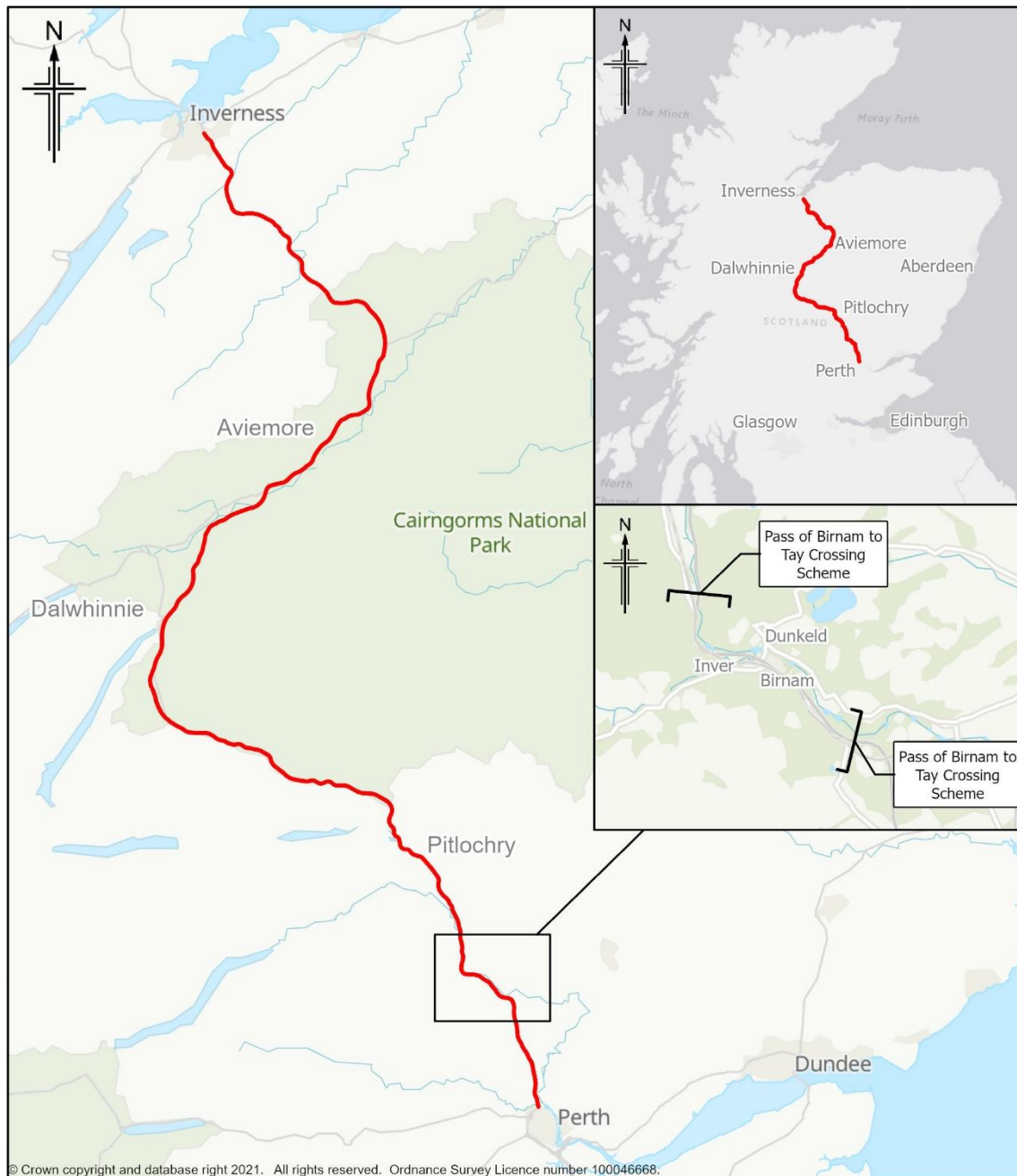


Image 1: A9 Perth to Inverness Location Plan

Description of Local Environment

The following sections provide a brief description of the local environment in the vicinity of the existing A9. The extent of the areas discussed, or the study areas referred to, vary according to the environmental factor under consideration. The baseline information is based on a review of currently available information; primarily the findings of the A9 Dualling Programme: Pass of Birnam to Tay Crossing, DMRB Stage 2 Scheme Assessment Report (Jacobs, 2023a)

Image 2 shows environmental constraints within the area of the proposed scheme.

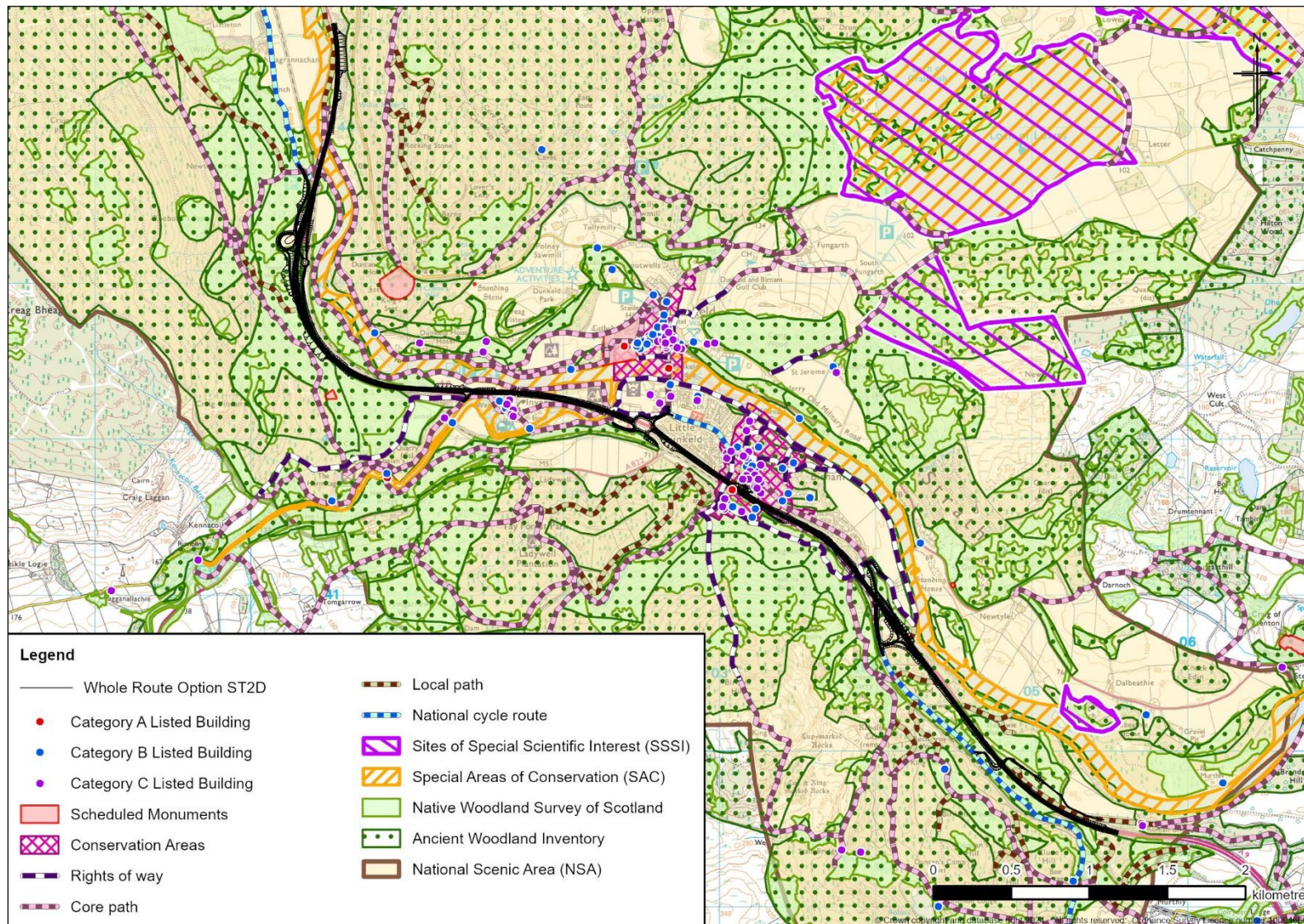


Image 2: Environmental constraints

Population and Human Health

Population – Land Use

The main residential communities within the study area, extending to 500m from the existing A9, are Birnam, Little Dunkeld, Dunkeld and Inver. Most residential properties are located within these communities, with the remainder made up of scattered rural dwellings, including a number of farmhouses and their associated cottages. Business properties are also located within the study area and there are numerous community facilities including Birnam Arts and Conference Centre, Dunkeld and Birnam Recreation Club and The Royal School of Dunkeld. Community land includes sports pitches, public parks/gardens, play spaces, school grounds and The Hermitage (National Trust for Scotland visitor attraction).

The land use within the study area is predominantly forestry interspersed with a limited number of agricultural fields. The main farming type is livestock production (cattle and sheep).

Population – Accessibility

The Population - Accessibility assessment considers the impact of the proposed scheme on walkers, cyclists and horse riders (referred to as WCH). The study area includes paths within 500m of the proposed scheme, however, consideration of the wider area has also informed the assessment.

Between the Pass of Birnam and the Tay Crossing, the existing A9 is a single carriageway with several northbound and southbound lay-bys and existing priority junctions with Perth Road and the B867 south of Birnam; the A923 and A822 (Old Military Road) at Little Dunkeld; and the B898 south of Dalguise.

Within the study area there are: 33 Core Paths, designated in the Perth & Kinross Council Core Paths Plan (2017); eight paths designated as public Rights of Way; 20 local paths. These routes were identified as being used by WCH, particularly recreational walkers and ramblers. The DMRB Stage 2 Scheme Assessment Report identified six existing WCH crossing points for the existing A9, comprising existing overbridges, underbridges and at-grade crossings.

National Cycle Route 77 (NCR77) which links Dundee with Pitlochry, and Regional Cycle Route 83 (RCR83) run through the study area.

The combination of road network and paths provides access for WCH to public transport facilities, including Dunkeld & Birnam Station.

Human Health

Dunkeld, Little Dunkeld, Birnam and Inver have a small population (0.8% of the wider population of Perth and Kinross) with a median age higher than that of the Scottish population. There is a high proportion of residents that belong to what are termed as vulnerable groups (young people including school children, the elderly and people with disabilities) and therefore may be more sensitive to changes in the environment that could potentially affect their health and wellbeing.

Health in the communities is considered to be good or very good, similar to the average for Scotland, but there is a slightly higher proportion than those in the wider Scottish population that consider themselves as limited by a health problem or disability in some capacity. It is possible to surmise that this is linked to the proportion of the population considered as vulnerable (young people including school children, the elderly and people with disabilities).

Personal wellbeing indicators for Perth and Kinross suggest that the population of the communities should have higher life satisfaction, a feeling of worthwhileness, and happiness as compared with the wider Scottish population. Levels of anxiety have risen between 2018-2019 to 2019-2020 but remain below the national average.

Biodiversity

There are a number of species of conservation interest confirmed within the study area, which extends to approximately 500m from the existing A9, including:

- otter;
- Eurasian beaver;
- bats (six species);
- bird species (including UK Biodiversity Action Plan, Local Biodiversity Action Plan and red/amber listed);
- aquatic species including freshwater pearl mussels, Atlantic salmon, lamprey (river, brook and sea), trout (brown and sea) and European eel;
- badger;
- pine marten;
- red squirrel;
- adder;
- common lizard; and
- slow worm.

Habitats in close proximity of the existing A9 comprise mainly woodland, with a predominance of broadleaved and mixed woodland (of semi-natural or plantation origin), and agricultural land of different types. Habitats of significance to conservation in the study area include:

- River Tay Special Area of Conservation (SAC);
- Craig Tronach Site of Special Scientific Interest (SSSI); and
- fragments of woodland listed on the Ancient Woodland Inventory (AWI).

Landscape

The landscape assessment at DMRB Stage 2 focused principally on a study area of up to 5km from the proposed scheme. Landscape and landscape related designations that fall within the study area have been identified as:

- River Tay (Dunkeld) National Scenic Area (NSA);
- Murthly Castle Garden and Designed Landscape (GDL);

- The Hermitage GDL;
- Dunkeld House GDL;
- Tay Forest Park;
- Dunkeld Conservation Area; and
- Birnam Conservation Area.

There are a variety of vegetation types within the study area, but it's largely dominated by extensive, native and non-native woodlands and forests interspersed with farmland and the settlements of Dunkeld, Birnam, Little Dunkeld and Inver.

Four Local Landscape Character Areas (LLCAs) were identified at DMRB Stage 2 within the study area, which is characterised by the varied landscape of the Tay valley with its surrounding rugged, craggy top hills and densely wooded valley sides.

Visual

The DMRB Stage 2 assessment identified 21 viewpoints within the study area, which extends approximately 5km from the existing A9. These are considered to be representative of the range of visual receptors at publicly accessible locations. The main residential receptors within the study area comprise the settlements of Dunkeld, Little Dunkeld, Birnam and Inver. In addition to people within these settlements, visual receptors include scattered clusters of properties and individual farmsteads located largely on the lower hill slopes and along the valley floor. Mobile receptors include users of the Highland Main Line railway, NCR77, the existing A9, A822 (Old Military Road), A984 and surrounding B roads.

The existing A9 is a notable feature in many of the views as it winds its way through Strath Tay, although established forestry plantations and mature woodland areas help to provide screening on some sections. The topography of the area generally limits views, with the rising hills to the north and south helping to screen more distant views into the surrounding area.

Geology, Soils and Groundwater

The study area for geology and soils extends to 250m from the proposed scheme. There are no designated geological receptors or Geological Conservation Review sites within the study area. Superficial geology is recorded as alluvium, river terrace deposits, glaciofluvial deposits and Devensian glacial till. Underlying the superficial geology is metamorphic bedrock of Dalradian age belonging to the Southern Highland Group. Igneous and conglomerate bedrock is encountered at the Pass of Birnam and Birnam Wood.

The study area is underlain by humus-iron podzols which may also contain some alluvial soils, associated with the valley floors, terraces and mounds. There are four areas of prime agricultural land (Land Capability for Agriculture (LCA) Class 3.1) and some agricultural fields of LCA Class 3.2 (land capable of producing a moderate range of crops) within the study area.

During desk-based assessment at DMRB Stage 2, 50 sources of potential land contamination were identified within the study area, including, but not limited to, land associated with the existing Perth to Inverness railway, the former Ladywell Landfill site, gravel pits, quarries, sawmills and gas works.

The groundwater study area extends to 850m. Groundwater within the study area has been classified by SEPA as 'Good with Medium confidence' for both quantity and quality, with no pollutant trends. Abstraction for private water supply was identified within the study area.

No groundwater dependent terrestrial ecosystems (GWDTE's) are identified as being present the study area.

Water

Within the study area of 500m from the outermost edge of the proposed scheme, there are 20 water features, which range from large waterbodies with European-level ecological designations to minor straightened road and field drains, which provide only a functional land drainage benefit. Large sized watercourses crossed by the A9 in the study area include the River Tay and River Braan, both of which are within the River Tay Special Area of Conservation (SAC).

SEPA holds records of discharge consents within the study area, which include those for private septic tanks, various public sewage treatment overflows, sewage treatment works discharges and private sewage treatment works discharges.

Existing road drainage treatment along the existing A9 in the study area between the Pass of Birnam and the Tay Crossing is generally limited, consisting of kerbs and gullies which direct untreated road runoff to an outfall into the nearest water feature.

Air

This section of the A9 passes through a rural environment with generally good air quality: levels of pollutants calculated as part of the DMRB Stage 2 assessment were well below Objectives/Thresholds set by national and international legislation for sensitive human health locations. Predicted nitrogen deposition rates were above the respective critical loads for some ancient woodland habitat locations.

There are no Air Quality Management Areas (AQMAs) designated within the study area, which considers sensitive receptors within 200m of the modelled road links. The closest AQMAs are located in Perth and Crieff, approximately 13km south and 23km south-west of the study area respectively.

Neither the Department for Environment, Food and Rural Affairs (Defra) nor PKC operates any monitoring sites within, or in the vicinity of, the study area. Air quality monitoring was undertaken at three locations within the study area during the DMRB Stage 2 assessment to provide baseline data to inform the impact assessment.

Noise and Vibration

Road traffic is identified as the primary source of noise within the study area (calculation area) with the main noise sensitive receptors located within the settlements of Birnam, Little Dunkeld and Inver. The DMRB Stage 2 assessment identified 782 residential properties and 45 other noise sensitive receptors within the noise study area (a 600m buffer around the proposed route). Other sensitive receptors identified include hotels, guest houses, caravan parks, schools, parks, play areas and churches. There are no designated Candidate Noise Management Areas or Candidate Quiet Areas in or near to the study area.

Climate

The proposed scheme is located within the administrative boundaries of PKC. PKC's estimated council-wide greenhouse gas (GHG) (CO_{2e}) emissions were obtained from the most recent (at the time of the DMRB Stage 2 Assessment) UK National Atmospheric Emissions Inventory (NAEI) dataset for local authorities (for the year 2020). Estimated total net council-wide GHG emissions are 1,229 kt, which accounts for approximately 3.2% of estimated total net emissions in Scotland. It should be noted however that Land Use, Land Use Change and Forestry (LULUCF) are estimated to have a sizeable positive impact on total net GHG emissions in the area administered by PKC (i.e. - 64 kt).

With regards to the baseline for vulnerability of projects to climate change, the A9 mainly runs outside floodplain areas, apart from short sections of the A9 that span the Inchewan Burn, the River Braan and the River Tay close to the northern extent of the project. There are no surface water flooding incidents recorded along the A9 and areas at risk of surface water flooding close to the A9 are limited to small, isolated areas as reported in the DMRB Stage 2 Flood Risk Assessment (Jacobs 2023b).

Material Assets and Waste

Existing ground conditions are set out under Geology and Soils. Registered landfill sites and existing waste landfill capacity information was sourced from the SEPA online Scottish Waste Sites and Capacity Tool.

There is likely to be a good supply of both primary and recycled aggregates within the study area to support the construction of the proposed scheme. There is currently limited information on the availability of secondary aggregates.

There are no 'mineral safeguarding sites' or 'peat resources' within or in close proximity to the study area.

There is likely to be adequate waste management capacity within the study area to accommodate the majority of wastes arising from the construction of the proposed scheme, and there is unlikely to be any specific constraints with regards to managing inert and non-hazardous wastes arising from the construction of the proposed scheme. However, there is no hazardous landfill capacity in the study area and Scotland's sole hazardous landfill is considered to be highly sensitive to disposing of large quantities of hazardous (or special) waste given its limited remaining capacity.

In reporting the DMRB Stage 2 Assessment, baseline information was gathered for the anticipated construction phase and the first year of operational activities (opening year) in the absence of the proposed scheme. This was sourced from desk-based reviews and analysis of stakeholder information.

Cultural Heritage

The DMRB Stage 2 assessment identified 48 archaeological remains, 159 historic buildings and 17 historic landscape types within the study area which extends approximately 500m from the existing A9. This included three Scheduled Monuments and 128 listed buildings.

Of the 17 historic landscape types, four were assessed to be of high value, these comprise three designed landscapes recorded on the Inventory of Gardens and

Designed Landscapes (GDL) and Dunkeld Battlefield, that is included on the Inventory of Historic Battlefields. The study area has some evidence of activity dating from the Neolithic period through the Bronze Age, Iron Age and Pictish periods, however the majority of the cultural heritage resources identified are date from the post-medieval period. It is considered that there is potential for the discovery of previously unrecorded archaeology within the study area. Should these be identified, their discovery would be added to the records of those that are currently known.

Vulnerability of the Project to Risks

The proposed scheme is not anticipated to result in greater risk of major accidents or disasters during construction or operation and is not located within a geographical region that is subject to natural disasters. Vulnerability of the project to risks has therefore focussed on risk of flooding and the risk of man-made major accidents and disasters.

Description of Main Environmental Impacts and Proposed Mitigation

This section provides an overview of the likely potential environmental impacts and effects. General mitigation measures have been outlined in the DMRB Stage 2 assessment. Additional mitigation measures will be developed during the development of the DMRB Stage 3 design and as part of the Environmental Impact Assessment (EIA) process.

Population and Human Health

Population – Land Use

The proposed scheme will affect a number of private and community assets through land-take and/or changes in accessibility. Land-take will predominantly affect woodland but may also affect residential, commercial and industrial properties, including likely demolitions. Significant impacts were assessed at DMRB Stage 2. Design refinement at DMRB Stage 3 will aim, where practicable, to reduce land-take and provide alternative access arrangements for affected properties.

Population – Accessibility

The DMRB Stage 2 assessment concluded that the proposed scheme is likely to have significant adverse effects on 12 WCH routes due to changes in journey length and/or impacts on amenity value, and significant beneficial effects on one WCH route (Path 48/NCR77) due to an increase in amenity value. Design refinement at DMRB Stage 3 will aim, where practicable, to reduce changes in journey length and/or impacts on amenity value and where possible, to provide specific mitigation.

Human Health

The DMRB Stage 2 assessment concluded that the proposed scheme has the potential to result in a Negative health and wellbeing outcome for the communities during the construction phase due to impacts of construction activities: for example, the potential for a temporary increase in noise and dust.

During operation of the proposed scheme, it is identified at DMRB Stage 2 that the proposed scheme has the potential to result in a Negative health and wellbeing outcome for the communities from impacts such as increased noise and vibration at some properties and land-take from green/open space. There is also potential for Positive health and wellbeing outcomes to arise during operation of the proposed scheme as a result of amenity and safety improvements. As such, an overall Neutral health and wellbeing outcome has been identified at DMRB Stage 2 during operation of the proposed scheme.

It is likely that the majority of potential significant effects on human health and wellbeing predicted at DMRB Stage 2 would be reduced by essential mitigation measures proposed for the relevant environmental factors. For example: where design iterations are unable to prevent significant effects on human health due to noise and vibration impacts, specific mitigation would be developed at DMRB Stage 3 and presented in the Noise & Vibration assessment; and effects on core paths and cycle routes which could result in significant health and wellbeing effects would be mitigated by measures set out in the DMRB Stage 3 Population – Accessibility assessment.

Health and wellbeing mitigation may include providing potential mitigation measures such as investment in community initiatives such as tree planting on community land/open space as a means of enhancing the local landscape amenity and monitoring of effects by undertaking a community survey.

Biodiversity

The potential impacts on ecology, nature conservation and biodiversity are anticipated to be habitat loss, including loss of mature trees, fragmentation and potential pollution to the River Tay and its tributaries, which form part of the River Tay SAC. A Habitat Regulations Appraisal (HRA) has been undertaken at DMRB Stage 2 and it will be necessary to undertake an HRA during DMRB Stage 3.

Some areas of land-take required for the DMRB Stage 3 design are anticipated to directly affect woodland listed on the AWI (as ancient: of semi-natural origin and long-established woodland of plantation origin). In addition, potential disturbance of associated protected species within these woodlands may occur. Increased risk of mortality from vehicle strike is also possible for otter, birds, bats, and other mammal species.

Mitigation measures will be considered as part of the DMRB Stage 3 assessment and are likely to include design refinement and embedded mitigation to reduce land-take and specific mitigation measures such as habitat replacement.

Landscape

The proposed scheme would result in the loss of woodland, particularly woodland listed on the AWI, and roadside screening trees along with small areas of agricultural land south of Birnam and adjoining the existing A822 (Old Military Road). This would be as a direct result of the proposed widening of the carriageway, the new junctions and associated earthworks. The DMRB Stage 2 assessment predicted significant effects on landscape receptors at particular locations as a result of the proposed scheme. The most significant landscape effects would be over a relatively small section of the overall route, primarily at the junctions at Birnam and Dunkeld, as well

as the section of route within the Strath Tay: Dunkeld and Birnam LLCA (Settlement) and the River Tay (Dunkeld) National Scenic Area (NSA) between Dalpowie Plantation and the Tay Crossing.

Visual

Potentially significant effects on visual amenity are predicted, with most of the impacts arising from increased visibility of the proposed scheme. This is as a result of the loss of existing screening vegetation, the closer proximity of the road to the receptors due to the widening of the road and the introduction of new large-scale earthworks and retaining walls with views of traffic elevated on embankment. The establishment of mitigation planting is likely to reduce impacts for the majority of receptor locations along this section of the proposed scheme.

A View from the Road assessment was undertaken at DMRB Stage 2 which determined that there would be no significant effects in summer 15 years after completion following the establishment of proposed mitigation planting.

The significance of these effects will be reviewed and re-assessed at DMRB Stage 3 as the design is developed.

Embedded and specific mitigation measures will be considered as part of the DMRB Stage 3 assessment and are likely to include landscape planting to provide integration of the new carriageway, as well as visual screening.

Geology, Soils and Groundwater

There are likely to be some potential adverse impacts on soils and geology as a result of land-take and earthworks cut/fill. Significant residual effects were reported at DMRB Stage 2 due to the loss of non-prime agricultural land based on the estimated land-take required. Mitigation measures will be identified (e.g. re-vegetation, reuse of material, adherence to soil management plan) to avoid or reduce impacts on soils and geology. The significance of potential effects on potentially contaminated land sources will also be assessed as part of the DMRB Stage 3 assessment.

The DMRB Stage 2 assessment concluded that there would be no potentially significant residual effects for groundwater during construction or operation should adherence to SEPA guidance for pollution prevention be undertaken and appropriate SuDS be included as part of the proposed scheme. The potential impacts on groundwater will be further assessed at DMRB Stage 3 to determine appropriate mitigation, which is likely to include highways drainage measures or treatment.

Water

Potential impacts are anticipated in relation to surface water features in terms of flood risk, changes to fluvial geomorphology and water quality prior to mitigation, as a result of construction of culverts, outflows and crossings. Mitigation measures will be considered at DMRB Stage 3, including input to the design to inform aspects such as provision of SuDS. A range of best practice measures will also be required during construction to avoid or reduce potential for impacts on the water environment.

The DMRB Stage 2 assessment identified that the proposed scheme may result in the potential loss of floodplain in some areas; this will be subject to detailed

modelling and reported in a Flood Risk Assessment with mitigation such as flood compensatory storage areas developed as appropriate during the DMRB Stage 3 assessment.

Air

The DMRB Stage 2 assessment predicted that the proposed scheme would not result in significant effects on air quality at sensitive human health locations during operation of the proposed scheme. An assessment of the impacts of construction traffic on air quality could not be undertaken at DMRB stage 2 due to the absence of construction traffic data. As such, the assessment of construction traffic air quality impacts would be undertaken during DMRB Stage 3. During construction, mitigation measures will be required, following best practice for aspects such as dust control.

There is potential for significant effects on designated Ancient Woodland sites. The potential for impacts and development of mitigation will be considered in more detail at DMRB Stage 3.

Noise and Vibration

The assessment of construction noise and vibration impacts was undertaken at DMRB Stage 2 based on the level of detail available on construction activities at the time. Indicative construction noise and vibration predictions were undertaken to facilitate the comparison of the potential construction noise and vibration impacts for each route option. The identification of construction noise and vibration effects and development of a noise mitigation strategy were deferred until DMRB Stage 3.

The DMRB Stage 2 assessment of road traffic noise predicted that the proposed scheme would result in significant residual adverse noise effects at eight noise sensitive receptors (15 significant beneficial effects are also predicted). Therefore, such impacts are to be considered further within the DMRB Stage 3 EIA.

The requirement for mitigation will be considered at DMRB Stage 3 based on the noise modelling output. Potential mitigation measures will include, where appropriate, the use of a low noise road surface and/or noise barriers along some sections. During construction, mitigation measures are also likely to be required, such as guidance on working hours and avoidance of night-time working where practicable near to residential areas.

Climate

With regard to greenhouse gas emissions, the DMRB Stage 2 assessment predicted no significant local or global air quality effects. Further modelling will be undertaken at DMRB Stage 3 to assess air quality and greenhouse gas emissions.

In relation to vulnerability from flooding, the drainage design of the proposed scheme will allow for a 1 in 200-year event including an allowance for climate change. A 53% allowance for climate change for peak river flow and 39% allowance for peak rainfall intensity are in line with SEPA's 2023 guidance contained in 'Land Use Planning System SEPA Guidance: Climate change allowances for flood risk assessment in land use planning, Version 3 (LUPS-CC1)' (SEPA, 2023). In addition, flood risk, including consideration of climate change prediction, would be assessed at DMRB Stage 3 and reported in the EIA Report.

The design for the proposed scheme is based on accepted standards that are considered appropriate for the climate experienced in the UK for the design life of the proposed scheme. Where the proposed construction works interface with existing engineered slopes, slope stability measures such as benching or daily monitoring of any interface will be undertaken during the works. Any new engineered slopes will be designed to current codes and standards.

Material Assets and Waste

It is anticipated that the proposed scheme will include the construction of new bridges, new culverts, and the possible demolition of two existing structures and several buildings.

There is anticipated to be a net requirement to dispose of unsuitable material from the site, and also to import new materials, which will be considered at DMRB Stage 3. During construction, potential mitigation measures are likely to be required through the implementation of the Site Waste Management Plan and Construction Environmental Management Plan that will detail materials management methods. The plans will be implemented for ongoing environmental management and site waste management during operation.

The design process will inherently seek to minimise the consumption of material assets and the generation of waste throughout the lifecycle of the proposed scheme. Design choices and the choice of materials will make a significant contribution to reducing the environmental impacts associated with material assets and waste during operation by influencing the required method and frequency of maintenance and facilitating opportunities to recover and regenerate materials and products at the end of first life to support a circular economy.

Cultural Heritage

The proposed scheme is likely to have direct impacts on the setting of the Category A Listed Dunkeld & Birnam Station, and, as the study area has high archaeological potential due to numerous known extant remains, there is potential for impacts on undiscovered archaeological assets. There is potential for these impacts to result in significant effects on cultural heritage resources that require consideration at DMRB Stage 3.

Potential impacts and mitigation measures will be considered further during DMRB Stage 3. Mitigation measures will include avoidance, where feasible, of known sites. It is likely that further archaeological works will be required prior to construction in areas of high archaeological potential with recording and excavation of finds.

Vulnerability of the Project to Risks

The proposed scheme is not anticipated to result in greater risk of major accidents or disasters during construction or operation and is not located within a geographical region that is subject to natural disasters. Vulnerability of the project to risks has therefore focussed on risk of flooding and the risk of man-made major accidents and disasters.

The project is not anticipated to result in a greater risk of major accidents or disasters or have high susceptibility to major accidents or disasters.

A project risk register will be maintained and regularly reviewed to ensure that all potential risks are monitored and appropriate action is taken to avoid impact.

Cumulative Effects

Given the potential for individual significant effects noted in the preceding sections, and the potential for significant effects due to other projects in the study area (e.g. other A9 Dualling projects), there is potential for significant cumulative effects that require consideration at DMRB Stage 3.

Assessments of the Environmental Effects

The environmental effects have been assessed during the DMRB Stage 2 design development and assessment process and are reported in the DMRB Stage 2 Scheme Assessment Report (Jacobs, 2023a).

During the DMRB Stage 2 process, a flood risk assessment (Jacobs, 2023b) and Habitats Regulations Appraisal (Jacobs 2023c) were also conducted and an EIA Scoping Report has also been prepared (Jacobs 2024).

The following statutory organisations have been consulted:

- PKC, SEPA, NatureScot and Historic Environment Scotland (HES) have provided comments on the DMRB Stage 2 Scheme Assessment Report Part 3: Environmental Assessment which have been taken into consideration. The statutory consultees are also regularly consulted through the A9 Environmental Steering Group.
- NatureScot have been consulted regarding the DMRB Stage 2 HRA.
- HES, PKC and Perth & Kinross Heritage Trust were consulted upon the assessment criteria for the DMRB Stage 2 cultural heritage assessment.

Statement of case in support of a Determination that a statutory EIA is required

This is a relevant project in terms of section 20C(16) and section 55A(16) of the Roads (Scotland) Act 1984 as it is a project for the improvement of a road and the completed works (together with any area occupied by apparatus, equipment, machinery, materials, plant, spoil heaps, or other such facilities or stores required during the period of construction);

- exceed 1 hectare in area; and
- are situated in whole or in part in the River Tay Special Area of Conservation (SAC) which is a sensitive area within the meaning of regulation 2(1) of the Environmental Impact Assessment (Scotland) Regulations 1999¹.

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,

¹ Annex A sets out what is a sensitive area for the purposes of regulation 2(1) of the Environmental Impact Assessment (Scotland) Regulations 1999.

reference to consultations undertaken and review of available information has identified the need for a statutory EIA.

The project will have the potential for significant effects on the environment by virtue of factors such as:

Characteristics of the scheme:

- The works involve the upgrade of the A9 from single carriageway to dual carriageway, upgrade to road drainage, revisions to local access and provision of new junctions and overbridges.
- The extent of the works would require land-take from private property & housing and businesses (approximately 2.3ha), agricultural land holdings (approximately 23.4ha) and community land (approximately 0.2ha).

Location of the scheme:

- Approximately 8.4km of the A9 between the Pass of Birnam and the Tay Crossing in and near to the River Tay SAC and within the River Tay (Dunkeld) NSA which are sensitive areas within the meaning of regulation 2(1) of the Environmental Impact Assessment (Scotland) Regulations 1999.

Characteristics of potential impacts of the scheme:

- There is potential for significant effects resulting from land-take, (including from the forecourt of the Category A Listed Dunkeld and Birnam Station including Footbridge (Asset 26)), the loss of woodland listed on the AWI, and the presence of new road infrastructure.

References of Supporting Documentation

Jacobs *on behalf of Transport Scotland* (2023a). A9 Dualling Programme Pass of Birnam to Tay Crossing, DMRB Stage 2 Scheme Assessment Report.

Jacobs *on behalf of Transport Scotland* (2023b). DMRB Stage 2 – Flood Risk Assessment.

Jacobs *on behalf of Transport Scotland* (2023c) A9 Dualling – Pass of Birnam to Tay Crossing DMRB Stage 2 Habitats Regulations Appraisal.

SEPA (2021). Scottish Waste Sites and Capacity Tool <https://www.sepa.org.uk/data-visualisation/waste-sites-and-capacity-tool/>. .

Scottish Government (2019). Climate Ready Scotland: climate change adaptation programme, 2019-2024.

SEPA (2023). Land Use Planning System SEPA Guidance: Climate change allowances for flood risk assessment in land use planning, Version 3 (LUPS-CC1).

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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