

Appendix A7.3: Record of Determination

**EC DIRECTIVE 2014/52
ENVIRONMENTAL IMPACT ASSESSMENT (SCOTLAND) REGULATIONS 1999 AS AMENDED
ROADS (SCOTLAND) ACT 1984**

RECORD OF DETERMINATION

Name of Project:

A9 Dualling Pitlochry to Killiecrankie

Location:

Pitlochry to Killiecrankie (Project 04)

Description of Project:

The A9 Pitlochry to Killiecrankie project consists of upgrading approximately 6.8km of single carriageway road to a Category 7A dual carriageway. This project is one of a programme of 11 A9 dualling projects between Perth and Inverness. The project commences approximately 1km south east of the existing A9 River Tummel crossing and extends northwards, terminating at the existing dual carriageway section of the A9 at the Pass of Killiecrankie. The new dual carriageway would consist of an online upgrade up to Loch Faskally, then a new offline section of carriageway to the east of the existing A9 before tying in with the existing dualled section at the Pass of Killiecrankie. The scheme includes improvements to the existing grade separated junction to the south of Pitlochry and a new grade separated junction provided north of Loch Faskally.

Description of Local Environment

The sections below 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 parameter under consideration. The baseline information is based on a review of currently available information; primarily the findings of Part 3: Environmental Assessment, DMRB Stage 2 Assessment (Jacobs 2016).

People and Communities: Community and Private Assets

The study areas have been defined for the different receptors that will be considered in the assessment, as follows:

- Residential and commercial: receptors where direct land-take or changes in access would be required to accommodate the proposed scheme.
- Community land: areas that would be subject to direct land-take or changes in access as a result of the proposed scheme.
- Development land: planning applications and development land allocations that are situated within 500m of the proposed scheme.
- Agricultural, sporting and forestry interests: the area of land farmed and managed by the land interests that would be subject to direct land-take or changes in access as a result of the proposed scheme.

The main residential community within the 500m study area is the town of Pitlochry. In addition there are several rural dwellings, including a number of farmhouses and their associated cottages along the route along with commercial, tourism and industrial properties. There are ten agriculture, forestry and sporting land interests, including large scale farms, sports fishing, shooting and stalking, and Faskally Forest. There are multiple community facilities located within the study area including a high school, community hospital, medical centre, library, police and fire station.

The land use within the study area is predominantly agricultural, with parcels of forestry and woodland. The land supports a limited range of upland agricultural systems, with livestock production (cattle and sheep) and arable being the main farming types. Community land includes public parks and gardens; play spaces; residential, business and transport areas; school grounds; green access routes; cemeteries; and playing fields.

People and Communities: Effects on All Travellers

The Effects on All Travellers assessment considers the impact of the proposed scheme on pedestrians, cyclists, equestrians (referred to as Non-Motorised Users: NMUs) within 1km of the proposed scheme, and also on vehicle travellers in terms of changes to views from the existing A9 and the proposed scheme, as well as driver stress.

The existing A9 in the Pitlochry to Killiecrankie scheme area is a single carriageway with several lay-bys northbound and southbound, with junctions located at the southern and northern end of Pitlochry associated with the A924 as

well as junctions to Foss Road and Clunie-Foss Road and a number of minor accesses to properties.

Located within the study area there are 20 core paths, designated in the Perth and Kinross Core Paths Plan (2012). One of the core paths forms part of the Rob Roy Way, a long distance route between Drymen and Pitlochry. Two other paths are designated as public rights of way and there are a number of undesignated local paths within the study area. These routes are known to be used by NMUs particularly recreational walkers and rambblers, but also equestrians. During the DMRB Stage 2 Assessment (Jacobs, 2016) seven NMU crossing points for the existing A9 were identified which include: underpasses, under-bridges and at-grade crossings of the existing A9.

There are sections of two National Cycle Routes (NCR7 and NCR77) that run through the study area and interlink. NCR7 provides a route linking Sunderland and Inverness; and NCR 77 forms the 'Salmon Run' between Dundee and Pitlochry.

Geology, Soils, Contaminated Land and Groundwater

The study areas considered depends on the discipline; for geology and soils it extends to 250m from the proposed scheme; for Groundwater Dependent Terrestrial Ecosystems (GWDTE) up to 100m from the existing A9; and impacts on groundwater abstractions will be assessed to a distance of 850m from the proposed scheme.

The superficial geology within the study area is dominated by alluvium (consisting of clay, silt, sand and gravel), with the northern section underlain by river terrace deposits. Underlying the superficial geology metasedimentary and metavolcanic bedrock of the Southern Highland and Argyll Groups occurs. No designated Geological Receptors or Geological Conservation Review sites are present within the study area.

The majority of the study area is underlain by humus-iron podzols, with brown soils in the northern area associated with more steeply sloping hillsides. No prime agricultural land is located within the study area. There is a range of land classifications across the study area, with the most productive land categorized as Class 3.2 (land capable of growing a moderate range of crops). The predominant category is Class 4.1, which is suited to crop rotations, but primarily based on long ley grassland.

During the DMRB Stage 2 desk based assessment (Jacobs, 2016) 36 potentially contaminated land sources were identified within the study area, comprising land associated with the existing Perth to Inverness railway, construction of the existing A9, and historic industrial sites such as a saw mill and old limekilns.

The groundwater within the study has been classified by SEPA as 'good with high confidence' for both quantity and quality, with no trend of pollutants. Nine groundwater abstractions for private water supplies have been identified through landowner consultation within the study area.

Road Drainage and the Water Environment

There are 26 water environment features within the 500m study area, ranging from large waterbodies to minor drainage channels and field drains. Within the study area there are three large waterbodies monitored by SEPA: River Tummel, Loch Faskally and River Garry, which are all part of the River Tay Special Area of Conservation (SAC). Designated watercourses crossed by the existing A9 in the study area include the River Tummel and Loch Faskally which are designated as part of the River Tay SAC. The existing Tummel crossing was constructed circa 1981 as a three span structure with reinforced concrete leaf piers. The piers are located within the SAC boundary, however, only the most northern pier is within the river under normal flow conditions. The bridge has an overall deck length of approximately 151m and is 13.2m wide. The existing crossing of the A9 at Loch Faskally carries the A9 carriageway over Clunie-Foss Road, Loch Faskally and a core path with an overall deck length of approximately 150m and is 13.2m wide. It was constructed circa 1981 as a three span structure with the superstructure on splayed piers. Of the two existing piers the most northern is located within the SAC boundary, however, this is outwith the waterbody under normal conditions.

Within the study area there are 66 licensed discharge consents, 51 of which relate to private septic tanks, 14 of which are sewage discharge overflows and one an effluent discharge. There is a commercial abstraction for the Aldour Distillery, an abstraction relating to Pitlochry Dam and an abstraction for Loch Dunmore Angling club. There are also three private water supply consents from surface waters in the study area.

Existing road drainage treatment in the study area between Pitlochry and Killiecrankie is generally limited, consisting of kerbs and gullies which direct untreated road runoff to an outfall into the nearest water feature.

Ecology and Nature Conservation

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

- otters;
- bats (Daubenton's bat, common pipistrelle, soprano pipistrelle, Natterer's bat and brown long-eared bat);
- bird species (including Schedule 1, UK BAP, LBAP and red/amber listed);

- Atlantic salmon;
- freshwater pearl mussels;
- badger; and
- red squirrel.

Suitable habitat for the following protected species have also been identified within the study or wider area for the following:

- pine marten;
- river, brook and sea lamprey (below dam at Pitlochry);
- brown trout;
- European eel (below dam at Pitlochry);
- freshwater pearl mussel;
- adder;
- common lizard; and
- slow worm.

Habitats of significance to conservation within the study area include:

- River Tummel and Loch Faskally which form part of the River Tay SAC;
- fragments of Ancient Woodland Inventory (AWI) woodland; and
- areas of woodland noted in the Native Woodland Survey of Scotland (NWSS).

Landscape

A small proportion of the 5km study area in the north is located within the Blair Atholl to Glenshee area in Cairngorms National Park, highly valued for its natural beauty. The Loch Tummel National Scenic Area, Ben Vrackie Special Landscape Area, Cairngorms Wild Land Area, Tay Forest Park are all partially located within the study area. The Pitlochry Conservation Area is located wholly within the study area.

There are a variety of vegetation types within the study area including ancient woodland, riparian and roadside vegetation, farmland, parkland, woodland screening and specimen trees.

Six Landscape Character Areas (LCAs) were identified at DMRB Stage 2 within the study area, which extends approximately 5km from the existing A9; characterising both lowland and highland landscapes with simple and graded hill slopes and ridges with the existing A9 located within the Lower Highland Glens (Pass of Birnam to Killiecrankie) LCA.

Visual

The DMRB Stage 2 Assessment (Jacobs, 2016) identified 19 viewpoints within the study area, which extends approximately 5km from the existing A9; considered to be representative of the range of visual receptors at publically accessible locations, such as road users, rail users, walkers and other recreational users as well as residential properties. Mobile receptors include users of the Perth-Inverness Railway Line, National Cycle Route 7 and 77 (NCR7 and NCR77), the Rob Roy Way, PKC core paths, the existing A9 and surrounding B roads. The existing A9 is currently visible from a number of these viewpoints as it winds its way along the River Tummel and Loch Faskally, although established forestry plantations and mature woodland areas help to provide screening on some sections of the existing A9.

Residential receptors within the study area are typically located within the town of Pitlochry and small clusters of properties such as Tigh na Geat, as well as scattered individual properties,

Cultural Heritage

The 500m study area contains a large quantity of archeological remains, historic building and historic landscapes with a total of 78 heritage assets identified within the study area. There are four Scheduled Monuments:

- Dunfallandy Stone, Cross Slab;
- Foirche Settlement, Dalshian;
- Dunfallandy, Bell Cairn; and
- Greengates Cottages, Stone Circle.

In addition there are 18 listed buildings within the study area. Other cultural heritage designations present throughout the study area include records held by the Royal Commission on the Ancient and Historic Monuments of Scotland (RCAHMS) and Perth and Kinross Heritage Trust's Historic Environment Record (HER). There are 11 Historic Landscape Types (HLTs), none of which are considered to be of high value. The area generally has strong evidence of considerable settlement, ritual and battle activity dating from the Neolithic period through the Bronze Age, Iron Age, post-medieval and Jacobian. It is considered that there is high potential for the discovery of currently unknown remains of cultural heritage significance within the study area. Should these be identified, their discovery would be added to the records of those that are currently known.

Air Quality

There are no Air Quality Management Areas (AQMAs) within the study area, which considers sensitive receptors within 200m of the modelled road links. The closest AQMA is located over 30km south and south west in the areas of Perth and Crieff.

Neither DEFRA nor the Local Authority (Perth and Kinross Council) operate any monitoring sites within or in the vicinity of the study area. Air quality monitoring was undertaken at four locations within the study area during the DMRB Stage 2 Assessment to provide baseline data to inform the Stage 3 impact assessment.

Noise and Vibration

Road traffic using the existing A9 is identified as the primary source of noise within the study area that extends 1km from the proposed scheme and existing A9. A separate calculation area extends 600m from existing and bypassed and/or improved routes or new routes; and 600m from any affected routes. The town of Pitlochry is located within the study area and is the primary location of the sensitive noise receptors.

Materials

Existing ground conditions are set out under Geology, Soils and Groundwater. There are a number of active quarries and sand and gravel pits within the area which would be suitable for the sourcing of high quality aggregates, typically used for road pavement construction; there are also recycled aggregate suppliers within the area. Registered operational landfill sites and existing waste landfill capacity information was sourced from the SEPA 'Landfill sites and capacity report for Scotland 2014'. In 2014, there were six operational inert landfills and six operational non-hazardous landfills in the TAYplan SDP area or Highland Council area. The only active hazardous landfill in Scotland in 2014 was Avondale in Falkirk, located approximately 115km south of the proposed scheme. The Waste Site and Capacity Report for Scotland (SEPA, 2014) that there were 62 operational waste sites in the TAYside SDP area or Highland Council areas in 2014 that accept commercial and/or inert waste. These facilities do not just cover landfills but include metal recycling, transfer stations, composting and other treatment facilities.

Description of the main environmental impacts of the project and proposed mitigation

This section provides an overview of the likely potential environmental impacts. General mitigation measures are outlined in Part 3: Environmental Assessment, DMRB Stage 2 Assessment (Jacobs 2016). Additional mitigation measures will be developed during the development of the DMRB Stage 3 design and as part of the DMRB Stage 3 Environmental Impact Assessment (EIA) process.

People and Communities: Community and Private Assets

The proposed dualling of the A9 between Pitlochry and Killiecrankie will affect a number of private and community assets through land-take required for the proposed scheme along with severance. Land-take will predominantly affect agricultural land and woodland, but would also include residential, commercial and industrial properties. Design refinement at DMRB Stage 3 will aim, where practicable, to reduce land-take and provide alternative access arrangements for affected properties.

People and Communities: Effects on All Travellers

The effects of the proposed scheme on all travellers include increases in journey length and severance, and decreases in amenity value, specifically for users of Clunie Path (Path 72), Killiecrankie Path (Path 76) and a local path (76a) connecting Pitlochry Theatre to the Killiecrankie Path. The proposed scheme is also anticipated to result in the loss of one existing at grade crossing point of the A9 (CP04) west of Pitlochry used by NMUs to access to outdoor areas via Path 74 (which forms part of NCR 7/77 and the Killiecrankie and Clunie Paths). The DMRB Stage 3 design will include embed mitigation to minimise potential impacts on NMU routes and pathways (including core paths and rights of ways), with improved safety being a key consideration. The significance of these impacts will be reviewed and re-assessed at DMRB Stage 3 as mitigation is developed.

Driver stress is likely to be reduced by the proposed scheme and impacts on views from the road are unlikely to be significantly affected.

Geology, Soils, Contaminated Land and Groundwater

There are likely to be some potentially adverse impacts as a result of land-take and earthworks cut/fill. The impacts of soil compaction from construction traffic and site storage areas, and soil erosion from vegetation stripping for stockpiling were assessed to be of minor significance during the DMRB Stage 2 Assessment. Through appropriate mitigation measures (e.g. re-vegetation; reuse of material; adherence to soil stockpile management guidelines) effects can be mitigated, reducing impacts on soil and geology. It is considered that there is no significantly contaminated land within the study area. Potential groundwater impacts include reduced quantity and quality of groundwater, these will be assessed at DMRB Stage 3 to determine appropriate mitigation, likely to include highways drainage measures or treatment.

Road Drainage and the Water Environment

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 Sustainable Drainage Systems (SuDS). A range of best practice measures will also be required during construction to avoid or reduce potential for impacts on the water environment.

Part 3: Environmental Assessment, DMRB Stage 2 Assessment (Jacobs 2016) identified there could be potential flood risk impacts for properties in close proximity to the tributaries of the River Tummel, which will be considered and mitigation applied as appropriate during the DMRB Stage 3 Assessment.

Ecology and Nature Conservation

The main impacts on ecology and nature conservation are anticipated to be habitat loss, including loss of mature trees, fragmentation and potential pollution to watercourses. Potential habitat loss and pollution to the River Tay SAC will be considered during the DMRB Stage 3, due to works in the vicinity of and proposed crossings of the River Tummel and Loch Faskally, which form part of the SAC. A Habitats Regulations Appraisal (HRA) was undertaken at DMRB Stage 2 and it will be necessary to undertake a HRA during the DMRB Stage 3 Assessment.

Some areas of land-take are anticipated to affect woodland listed on the AWI as long established woodland of plantation origin. In addition potential impacts i.e. disturbance of associated protected species within these woodlands (breeding birds, bats and red squirrel) may occur. Increased risk of mortality as a result of vehicle strike are also possible for otter, birds, bats and other mammal species.

Mitigation measures will be considered at DMRB Stage 3, and are likely to include design refinement and measures such as habitat replacement. The proposed form of the crossings of the River Tummel and Loch Faskally are being developed, including consideration of potential impacts on the River Tay SAC and have been subject to consultation with statutory consultees: SNH, SEPA and Perth and Kinross Council.

Landscape

The proposed scheme will result in the loss of areas of existing mixed woodland and agricultural land; however the extent of the loss is a relatively small percentage of the habitat type in the wider landscape. The effects on, and loss of, landscape elements within the landscape designations, as a result of the proposed scheme, are unlikely to result in significant effects on the special qualities for which these designations are recognised. In respect of the LCAs the effects on and loss of, defining features are unlikely to be significant given the minor extent of changes associated with the proposed scheme and that the existing A9 is an established feature within the landscape.

Visual

For the majority of the visual receptor locations within the study area, the proposed scheme is unlikely to result in significant impacts on the primary focus of views, which is the expansive and attractive landscape around Pitlochry. The prevalence of roadside vegetation and woodland provides screening of the A9 from many locations and the context of the existing A9 corridor already has a strong influence on current views. From a couple of viewpoints there is the potential for impacts on walkers and residents. Mitigation measures will be considered at DMRB Stage 3, and are likely to include landscape planting to provide integration of the new carriageway and visual screening.

Cultural Heritage

The proposed scheme will result in land-take and the potential for direct impacts on non-designated cultural heritage assets. The proposed scheme is unlikely to have any direct impacts on listed buildings or Scheduled Monuments. Effects on setting will need to be considered during the DMRB Stage 3 Assessment. The study area has been identified as having high archaeological potential due to the numerous known extant remains; accordingly there is potentially a high risk of impacts on undiscovered archaeological assets.

Mitigation measures will be considered at DMRB Stage 3, and will include avoidance where possible 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.

Air Quality

No significant local or global air quality impacts are predicted. The proposed scheme is not expected to significantly increase vehicle movements; however small localised changes in air quality may occur for some properties due to changes in separation distance. During construction, mitigation measures are likely to be required, following best practice for aspects such as dust control.

Noise and Vibration

The DMRB Stage 2 assessment of road traffic noise predicted no major adverse impacts as a result of the proposed scheme and some beneficial impacts (reduction in noise levels) at particular locations. However, moderate and minor adverse impacts were predicted at a number of dwellings. The requirement for mitigation will be considered at DMRB Stage 3 based on the noise modelling output. Potential mitigation measures may 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.

Materials

Based on the Stage 2 Design it is anticipated that the proposed scheme would result in the construction of 8 new bridges, 7 culverts and 4 retaining walls and the demolition of Tign na Beith and Balnacraig School buildings at Craiglunie.

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

Policies and Plans

Compliance with individual policies and plans will be considered at DMRB Stage 3, however, due to the potentially significant impacts noted above, there is potential for some non-compliance with individual policies.

Extent of EIA work undertaken and details of consultation

An EIA will be undertaken for the DMRB Stage 3 design. To date, the proposed scheme has been designed following a DMRB Stage 2 Assessment. DMRB Stage 3 design and a full EIA have now commenced, including consideration of potentially significant environmental impacts in the context of the Roads (Scotland) Act 1984 as amended by the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended)*. Environmental scoping has been undertaken in discussion with all statutory consultees, via the A9 Environmental Steering Group (ESG), and is reported in a Scoping Report (Transport Scotland (2016), A9 Dualling – Perth to Inverness EIA Scoping Report).[Pa](#)

Public and statutory consultations were undertaken during the DMRB Stage 2 Assessment, as reported in Part 3: Environmental Assessment, DMRB Stage 2 Assessment (Jacobs, 2016). Consultation is currently ongoing as part of the DMRB Stage 3 process, and to date has included meetings with affected landowners, SNH, SEPA, Historic Environment Scotland and Perth and Kinross Council. Consultation letters to inform the DMRB Stage 3 Assessment will be issued to a range of consultees as appropriate.

** Although the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 consolidated, updated and replaced Part II of the Environmental Impact Assessment (Scotland) Regulations 1999, Parts III and IV of the 1999 Regulations (as amended) concerning Roads, Bridges and Land Drainage, remain extant.*

Statement of case in support of a Determination that a formal EIA and Environmental Statement is required:

Screening Determination:

The works are considered to constitute a relevant project falling within Annex II as referred to in the Environmental



Impact Assessment (Scotland) Regulations 1999 (as amended), since they exceed 1 hectare in area and are situated in part within a 'Sensitive Area', namely the River Tay Special Area of Conservation (SAC) and Loch Tummel National Scenic Area.

The project has been subject to screening using the Annex III criteria to determine whether a formal EIA is required under the Roads (Scotland) Act 1984 as amended by the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended). Screening using these criteria has identified a need for an EIA / ES because the works are likely to have a significant effect on the environment by virtue of factors such as:

- the works exceed 1ha in area; and
- there is potential for impacts to the River Tay SAC and Loch Tummel National Scenic Area.

Key elements of the works:

Upgrade of the A9 from single carriageway to dual carriageway, upgrade to road drainage, revisions to local access and provision of a grade separated junction north of Loch Faskally.

Location of the scheme: Approximately 7km of the A9 between Pitlochry and Killiecrankie.

References of supporting documentation:

Jacobs (2016). A9 Dualling Pitlochry to Killiecrankie DMRB Stage 2 Scheme Assessment Report, Volume 1: Main Report and Appendices, Part 3: Environmental Assessment.

Transport Scotland (2016). A9 Dualling – Perth to Inverness EIA Scoping Report.

SIGNATURE Transport Scotland Environmental Advisor:

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Date *09 May 2017*

Authorisation to publish Notice of Determination

SIGNATURE: Director, MTRIPs: *[Signature]*

Date *15/05/2017*

