



A82(T) Crianlarich Bypass Environmental Statement Non-Technical Summary September 2009

A82(T) CRIANLARICH BYPASS

ENVIRONMENTAL STATEMENT NON-TECHNICAL SUMMARY

INTRODUCTION

This document is the Non-Technical Summary of the Environmental Statement for the A82(T) trunk road¹ bypass of Criannlarich, which is proposed by Transport Scotland. The proposal is for a western bypass that would leave the A82 near the southern edge of the town and rejoin the A82 immediately west of the village (see Figure 1). It is anticipated that the scheme would open between the financial years of 2011 and 2012.

ENVIRONMENTAL IMPACT ASSESSMENT

Transport Scotland is publishing draft Road Orders² and a draft Compulsory Purchase Order³ to seek powers to build the new scheme. An environmental impact assessment of the proposals is required under the provisions of the Environmental Impact Assessment (Scotland) Regulations (1999 and 2006) because of the scale of the proposals and the potential for such a scheme to have significant effects on people or the natural and cultural environment.

Scottish Natural Heritage (SNH) requested that information was collated as part of the environmental impact assessment process to inform an appraisal of the potential effects of the proposals on the River Fillan. This river is part of the River Tay catchment, which is designated for its European value for nature conservation as a Special Area of Conservation (SAC) under the Conservation (Natural Habitats, &c.) Regulations 1994.

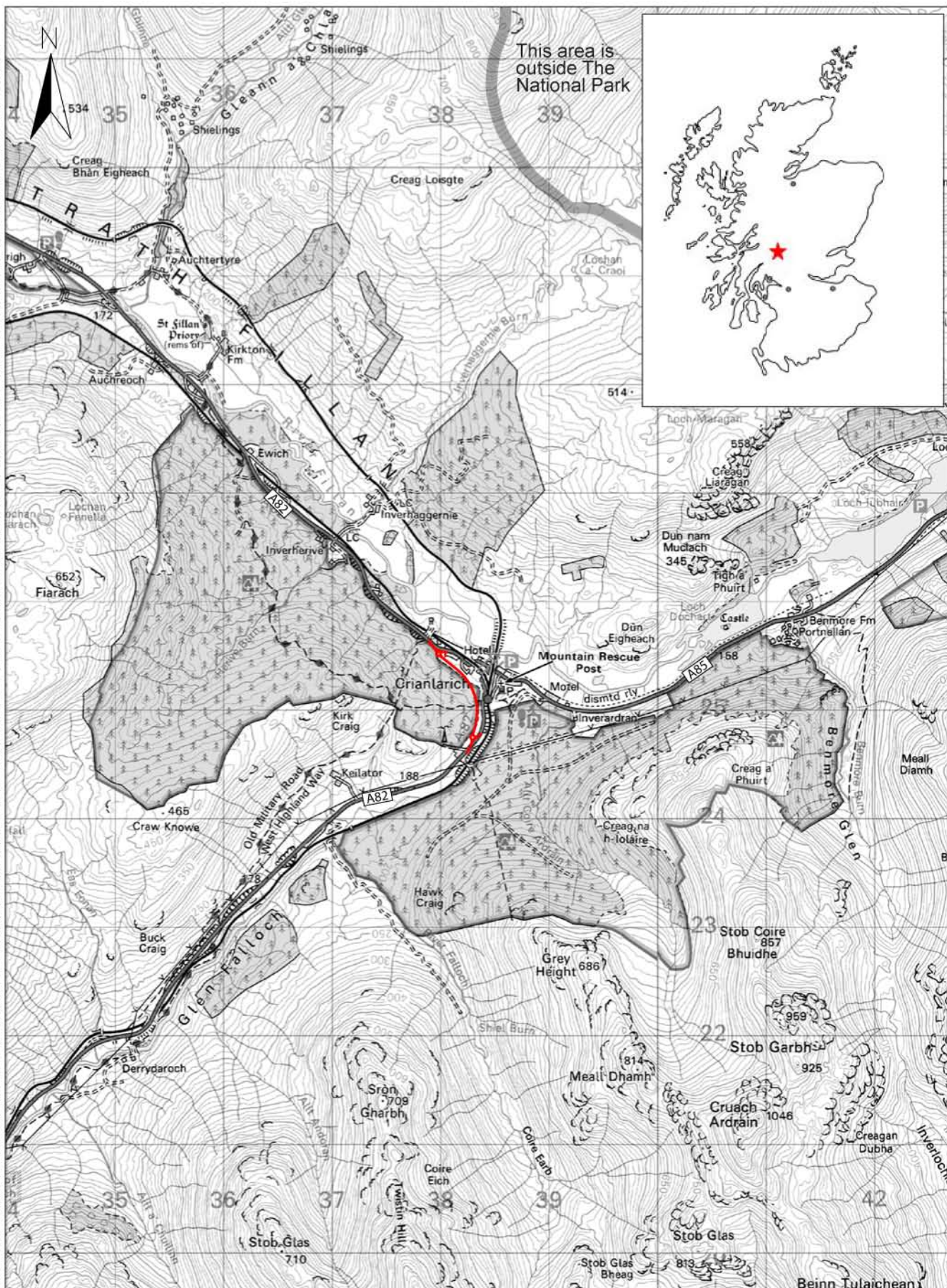
The findings of the environmental impact assessment and details about the project including mitigation commitments (measures that would be implemented to avoid, reduce or remedy adverse environmental impacts) are presented in an Environmental Statement. This Non-Technical Summary summarises the findings of the environmental impact assessment and other key information contained in the Environmental Statement.

The environmental impact assessment has been informed by consultations with a wide range of organisations and landowners. This information and the findings of the assessments have been used to help develop the design of the scheme by ensuring that wherever possible, adverse effects on people and on the natural and cultural environment would be avoided and environmental benefits delivered.

¹ A trunk road is a road which falls within the responsibility of the Scottish Ministers

² Roads Orders are published by the Scottish Ministers under the Road (Scotland) Act 1984 as the statutory development consent process for construction and operation of the trunk road and show the line of the road. Draft Orders are initially published and a period of consultation follows where any objections or comments received are taken into account in making the decision about whether the proposals should be approved and the orders made

³ A compulsory purchase order (CPO) is the means whereby land can be acquired by Transport Scotland.



NEED FOR THE SCHEME AND SCHEME BACKGROUND



Road users have acknowledged difficult operating conditions on parts of the A82 between Tarbet and Fort William particularly at certain times of the year such as the height of the tourist season. Early studies in the 1990s looked at improving driving conditions in Crianlarich and an initial recommendation for a western bypass of the village was made in 1994. This recommendation was the outcome of an options study which looked at various routes for bypasses around the village. Traffic calming of the Callander Road in the village was also recommended and these measures were implemented in 1997/8.

The bypass was then considered as part of the Scottish Strategic Roads Review when the Scottish Executive⁴ re-examined proposed major road schemes. The review did not recommend that the bypass should be taken forward at that time.

The scheme was reconsidered in 2003 as part of the A82 Route Action Plan Study⁵ and the findings of this study were published in 2006. Crianlarich was identified as a key operational problem area along the route due to:

- queuing at the Glen Falloch Road/Callander Road junction;
- traffic delays due to the two constrained railway bridges in the village; and
- a higher than average accident rate (although the majority of accidents are minor).

The report recommended the provision of a western bypass and in June 2006 Transport Scotland made a decision to take the scheme forward. The initial stage of this work involved the Grontmij/Natural Capital project team (commissioned to take the scheme forward) reviewing and updating the original route options study. The findings of this study were that the preferred option was still the western bypass, the same as in 1994. A small scheme's STAG⁶ appraisal was also undertaken to confirm that the proposed scheme is consistent with current Government transport objectives. The scheme was found to meet objectives and so was taken forward to further development and environmental impact assessment. It is the western bypass which has been appraised in detail in the Environmental Statement and the findings of this are summarised in this document.

SCHEME OBJECTIVES

The specific scheme objectives against which the proposals have been assessed are:

- to improve strategic transport links to support economic growth;
 - to reduce road traffic accidents in Crianlarich;
 - to safeguard and where possible enhance the environment of Crianlarich;
 - to facilitate links to interchange between transport modes in Crianlarich;
- and

⁴ Now called Scottish Government

⁵ Scott Wilson, 2006. A82 Tarbet to Fort William Route Action Plan Study. Transport Scotland

⁶ Scottish Transport Appraisal Guidance

- to improve local and strategic accessibility for all types of road users in and around Crianlarich.

THE PROPOSALS

The proposed scheme would connect with the existing A82 at the south of the village of Crianlarich by means of a new roundabout. The new road would run through an open corridor of land between the western edge of the village and Ewich Forest. It would connect with the Tyndrum Road (existing A82) at the western edge of Crianlarich via a second new roundabout. The proposals (described in more detail from south to north) include:



- approximately 1.3 kilometres (km) of single carriageway all-purpose road with one lane in each direction. The road would be 7.3 metres (m) wide and there would be 1m hardstrips at each side. The design speed would be 100km per hour;
- a roundabout at the southern end of the scheme which would allow access between Glen Falloch Road in Crianlarich and the new A82(T);
- a northern roundabout which would allow access between Tyndrum Road and the new A82(T);
- an underpass under the new road to allow access to the West Highland Way spur joining the long distance footpath to Crianlarich;
- realignment of the existing A82 linking the A85 to the A82(T) with access provided to the Shieling;
- construction of a road drainage system including two detention basins and a filter trench (each with and underdrain) for the treatment of road run-off and any accidental spills;
- culverts to carry drainage from the new road and run-off from the hills and forest above the scheme. Ledges to allow animal passage would be included in these culverts;
- safety fences and signs where required;
- lighting at the new roundabouts; and
- landscape planting (trees, shrubs and grassland). Deer fencing would be provided in some locations to protect the new planting.

The existing A82 through Crianlarich would be de-trunked and become part of the local road network maintained by Stirling Council. The section of the existing A82 west of the main junction in the village would be re-numbered the A85(T).

DELIVERING THE PROPOSALS

If at the conclusion of the statutory process it is found that the scheme should be taken forward there would be a competitive tendering process to select a contractor for the scheme. The winning contractor would construct the works in accordance with requirements set out in the contract. These would include all the committed environmental mitigation described in the Environmental Statement.

In advance of the construction stage a detailed design process would be undertaken. It is therefore the case that some details of the scheme are not yet defined and therefore construction assumptions and design details have been

used for the purposes of environmental impact assessment based on best available information. As the scheme is developed any details and/or methods of construction that differ from those assumed in the Environmental Statement, would be considered by Transport Scotland (the scheme promoter) as to whether they could result in any significant adverse effects. If the potential for significant effects was identified then an addendum to the Environmental Statement would be required and this would be published for public comment and consideration by Scottish Ministers.

CONSTRUCTION

The scheme would take some 12 months to build. It has been assumed that construction activities would be undertaken during the daytime (08.00 to 19.00 Monday to Friday and 8.00 to 13.00 on Saturday). Occasional night and Sunday working would be required for some activities (e.g. carriageway tie-ins) to minimise traffic disruption on the local road network. Noise limits would be controlled by requirements in the contract documents.

Construction activities would include earthworks and land forming for embankments and cuttings, erecting structures such as the West Highland Way spur underpass and culverts, installing drainage networks, road surfacing, signing and lighting etc. These activities would create additional traffic movements and some activities could require traffic management measures.

Land made available to the contractor in the contract could be used for a site compound and to store material and equipment. If the contractor wanted to use additional land outwith the scheme corridor then necessary permissions and licences would have to be acquired by the contractor.

The scheme, once operational, would be maintained by a maintenance contractor on behalf of Transport Scotland.

EFFECTS OF THE PROPOSALS

The environmental effects of the proposals are summarised in the following sections and key features of the scheme shown on Figure 2. Effects which are moderate or major (adverse or beneficial) are considered to be significant.

Policy and Planning

The proposed scheme broadly complies with National Government guidance and Local Authority Structure Plan and Local Plan policies. Mitigation has been defined for any potentially significant impact on the environment to ensure that any residual effects are reduced to the minimum for safe implementation of the proposals.

The scheme would not lead to an increase in traffic in the National Park and would remove traffic from Crianlarich village with benefits to residents and visitors.

The scheme would be built in a sensitive location at the edge of Crianlarich and within the Loch Lomond and the Trossachs National Park. The design of the scheme has taken account of the aims of the National Park as well as the importance of the natural and cultural heritage of the area.

Traffic

The proposed bypass would remove through traffic using the current A82 route through the village as it would provide a quicker and more direct route. Traffic flows on the route are seasonal with the highest flows during the summer period during July and August. When the scheme opens the annual average daily traffic (AADT) flows on the new bypass are predicted to be 2,700 vehicles per day. Traffic flows on the existing A82 route when the scheme opens would reduce from 5,700 AADT to approximately 3,000 AADT on the western section and 3,400 AADT to 700 AADT on the southern section.



Land Use

The scheme is located at the western edge of Crianlarich between the village and Ewich Forest through an open corridor of peaty wet heath land with scattered trees and scrub and rock outcrops. A spur from the West Highland Way, a long distance footpath, crosses the proposed scheme corridor to allow access to the facilities in Crianlarich.



Construction of the scheme would result in the change of land use of some 13 hectares (ha) of which 3ha are outwith the site boundary. The existing West Highland Way spur would be realigned for some 100m southwards and access to the village maintained by provision of an underpass.

Some 5ha of plantation forestry would be lost. This includes 2ha from within the scheme corridor and a further 3ha belonging to the Forestry Commission which would need to be felled⁷ to allow a wind firm edge to be maintained at the edge of the forest. This area would be returned to the Forestry Commission once felling and planting were complete. The precise wind firm edge would be agreed with the Forestry Commission on the ground prior to works commencing.

There are some 67 properties within 300m of the scheme of which 57 are residential and ten are commercial/community buildings. No property demolitions would be required for construction of the scheme (apart from a war time bunker at the south end of the scheme) and there would be no land lost from the gardens of residential properties. Access to all properties would be maintained during construction and once the scheme was operational. Appropriate signage would be provided to warn drivers of any potential delays during construction.

Geology and Soils

No sites designated for their geological interest would be affected by the proposals. No geological resources of particular significance have been identified which would be affected by the works and no significant effects are predicted. Peat is extensive in the road corridor and it would be necessary to remove it from below the new road. Some of this would be re-used on site in the earthworks and to help integrate the new features into the surrounding landscape. The remainder would be disposed of off site. It is hoped that an area where the peat could be re-

⁷ An indicative wind firm edge has been agreed with the Forestry Commission

used would be identified by the contractor. Implementation of best management practices including good design of the works would ensure that any impacts on soils and peat were minimised.

Road Drainage and the Water Environment

Drainage in the area of the site is from the hills above Crianlarich to the River Fillan to the north of the village. There are no major surface water features which would be affected by the scheme. Run-off from the hills and forest above the scheme would be culverted under the new road. Run-off from the new road itself would be discharged into existing burns in accordance with best practice through filter drains, herring-bone drainage, detention basins and/or other sustainable urban drainage systems (SUDS). It is not predicted that there would be any significant adverse effects on the watercourses or groundwater in the area and that the proposed bypass would not be at risk of flooding. The proposed design mitigation measures would also help to mitigate the impacts from extreme pollution events by having capacity to hold large volumes of run-off and contaminated water. This would allow time for pollution response plans to be implemented and clean up to take place. These measures would ensure the risk of pollution to the River Fillan would not be significant.



Ecology and Nature Conservation

The route corridor is rural in character running through an area of peat habitats with scattered trees and shrubs at the foot of the Ewich Forest and to the west of the village.



No statutory designated sites would be directly impacted on by the proposals. The scheme lies within 0.2km of the River Fillan, part of the River Tay Special Area of Conservation which is designated for its European nature conservation value. Implementation of best management practices during construction and design and implementation of effective drainage features including detention basins and other SUDS measures would ensure that there were no significant indirect effects on the river.

Some 13ha of habitat would be lost to allow construction. This would include some 7ha of a mosaic of wet heath and acid grassland and some 5ha of coniferous plantation (some within the scheme corridor and some in an area owned by the Forestry Commission, where felling would be required to ensure a wind firm edge for the remaining forest). There would be new planting of some 1.5ha at the edge of the new road. New planting (0.5ha) would also be undertaken in the felled area belonging to the Forestry Commission.

Otter activity has been identified along the route corridor (signs of animals passing through). Otter is a European Protected Species. Otter ledges and fencing would be incorporated into the detailed design of the scheme to reduce the potential for severance effects from the new road. A variety of birds have been identified as breeding in the scheme corridor or in proximity to it but no significant effects on any have been identified. The new landscape proposals have been designed to

provide a range of habitats for birds and other animals and have potential to enhance local biodiversity in the longer term.

Landscape and Visual

The proposed road runs through the woodland fringe and narrow open landscape along the south-western edge of Crianlarich. At the larger scale the line of the road respects the topography, curving round the toe of the hillside, although it smoothes out the small-scale irregularities, introduces a smooth line in a generally irregular scene and reinforces the artificial nature of the current forestry edge.

Visual effects would occur particularly at either end of the village, where the road runs close to houses. There are lesser effects around the station area but none from the centre of village. More widely, there would be minor visual effects on views from surrounding hill slopes and tops, including five Munros and three Corbetts.

At the scale of the landscape character areas as a whole, the new road would have a moderate adverse effect on the landscape during the construction period.



At a more local scale, there would be a major adverse effect on the landscape of the narrow strip open glen side traversed by the road. These effects would all reduce over time as the mitigation matures, such that the eventual overall landscape effect would be minor, although locally the effects would remain moderate.

The road and traffic together would have a major adverse visual effect at the time of opening on the group of houses at Tyndrum Terrace, on Willow Brae and Willow Square and at Gleann Fiadh Lodge. They would also have a major adverse effect on views from parts of the Community Woodland and on part of the West Highland Way spur to the village.

Over time these effects would be reduced by the development of the mitigation planting and the general roadside landscape. The effects on Tyndrum Terrace would remain major because of the views of traffic from the upstairs rear windows, and at the new house the effect would remain major because of views of the road and traffic to the south of the house. They would also remain major at the West Highland Way spur where it crosses under the new road. Elsewhere major adverse visual effects would fall to moderate adverse or, for Willow Square, to minor adverse.

There would be moderate adverse visual effects at the time of road opening from The Sheiling and Ardlea, from Carna Cottage, from Station House and from the two groups of houses on Glen Falloch Road. Mitigation planting would generally reduce this effect over time to minor adverse and, at the southern group of houses on Glen Falloch Road to minor beneficial (see Figure 3).

Cultural Heritage



The area of Crianlarich has undergone substantial pre-historic and historic development. There are some 53 sites, of archaeological or historic interest in the vicinity of the village, of which four have statutory protection (one scheduled ancient monument and three listed buildings). Construction of the bypass may have a direct physical impact on five sites of local importance including a possibly pre-18th century structure and a Cold War bunker.

Any site which could not be avoided would be recorded before construction begins. There would be no significant effects on the setting of any of the sites with statutory protection.

Disruption due to Construction

Construction activities would affect the Crianlarich community and the surrounding area, however, with careful planning of construction, including effective communications with the local community and the travelling public, many of the effects could be mitigated with only limited disruption to local and long distance traffic.

Traffic Noise and Vibration

The key noise source in the area of the proposals is existing local road traffic with additional contributions from natural sources such as rustling vegetation and bird song and these would continue once the new bypass is built. Noise mitigation has therefore been integral to the iterative design process for the scheme, balancing the opportunity to reduce/control noise at nearby properties with potential landscape and visual impacts of bunding and barriers.

There would be temporary noise and vibration effects during construction which could be significant for short periods. Contract requirements would require noise levels to be kept to the minimum possibly by implementing recognised best practice measures and for the contractor to monitor vibration to control impacts to within acceptable levels.



Within the study area used for noise assessment more properties are predicted to experience noise level decreases than increases and generally the magnitude of decreases is predicted to be greater than the magnitude of increases. Noise effects at dwellings are predicted to range from major beneficial (9 properties) to moderate adverse (four properties: 7, 5 and 11 Tyndrum Terrace (rear) and 10 Willow Square (front)), with the majority of these properties experiencing minor noise level changes or less. Noise effects at 'other' receptors are predicted to range from minor beneficial to minor adverse. Noise level changes at important designated historic sites are predicted to range from none to minor beneficial. No properties are expected to qualify for noise insulation measures through the provisions of the Noise Insulation (Scotland) Regulations.



Note: this photo pre-dates the construction of Gleann Fiadh Lodge

Drawn by: KM	Checked by: PQ	Date: 08/08
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A82(T) Crianlarich Bypass
**Oblique Visualisation of the
Proposed Bypass**



NTS Figure 3

Some local properties may be subject to a decrease in airborne vibration due to traffic flow decreases on the existing A82, and the proposed route being located at greater distance from existing properties than the existing route.

Air Quality

Air quality within the route corridor is good. Concentrations of all pollutants considered are well within the statutory objectives.

Impacts during construction (emissions of dust and particulate matter) would be minimised by implementing best management practices on site and the residual effects are not considered to be significant.

During operation, the proposed bypass would lead to a small reduction in nitrogen dioxide (NO₂) and particulate matter (PM₁₀) concentrations at the majority of properties assessed. An increase in pollution concentrations is predicted to occur at two locations for NO₂, at the rear of Tyndrum Terrace and 11 Willow Square and one location for PM₁₀, at 11 Willow Square as these properties would be located closer to the route of the proposed bypass than they currently are to the existing route. The increases predicted at these receptors would be very small and not significant.

Approximately 85 properties would experience an improvement in local air quality and two properties would experience a deterioration in local air quality as a result of the proposed bypass. Approximately, three properties are likely to experience no change in local air quality.

Total emissions of carbon dioxide (CO₂) and oxides of nitrogen (NO_x) with the scheme when it is operational would be less for than the 2011 baseline. This decrease would primarily be due to a reduction in the distance that vehicles would travel using the proposed bypass, compared to the current road layout.

Overall, the scheme would have positive effects on air quality for the local population once operational.

Pedestrians, Cyclists, Equestrians and Community Effects



Access for all properties near the scheme and users of community facilities would be maintained during construction and operation of the scheme. An underpass and realignment of the West Highland Way spur would be provided to maintain permanent access to the village from the long distance footpath. Access with appropriate signage would be maintained during construction. Reduced traffic within Crianlarich would provide a quieter and less congested environment for pedestrians and cyclists once the bypass was constructed and operational.

Vehicle Travellers

Driver stress on the existing A82 is assessed as moderate. Driver stress on the new bypass has been assessed as low with the existing route remaining moderate through the village because traffic on the road would still be passing through a built up area. The scheme would therefore provide benefits in terms of driver stress for many travellers and the traffic flows on the existing route through Crianlarich would be significantly reduced with benefits to local users.

The view from the existing road is of the village, and provides an interesting variation in the experience of a mainly rural route. The views from the new road would be very restricted, mainly of cutting and false cutting slopes (created to protect properties from noise from the road) with planting. The new road would remove contrast from the visual experience of those using the A82 and replace it with mainly poor quality views. Overall this would be a moderately adverse effect on the road users' visual experience.

CUMULATIVE EFFECTS



The proposed mitigation measures would ensure that cumulative impacts from any other likely development in proximity to the corridor would not be significant. The results of the flood risk assessment indicate that no cumulative impacts to flooding are likely to occur from the development of the scheme. The appraisal indicates there would be no significant risk of impacts to the River Tay SAC.

Some residents in proximity to the proposals could be affected by a combination of traffic, air quality, noise and reduction in amenity effects both during construction and also when the scheme is operational. Some properties on the Glenfalloch Road would benefit in terms of noise and air quality. Some properties which would be between the Tyndrum Road and the new A82(T) would experience greater noise effects but air quality changes would not be significant. Overall the appraisals have indicated that more properties benefit in terms of noise and air quality than are disadvantaged.

No other major proposals have been consented and therefore no significant effects from the combined effects of this project with other proposals are predicted.

REVIEW AND COMMENTS

The Environmental Statement and copies of the draft Orders can be viewed during normal working hours at:

- Transport Scotland
Trunk Roads: Infrastructure and Professional Services
Buchanan House
58 Port Dundas Road

Glasgow
G4 OHF
(0830-1700 (Monday-Thursday) and 0830-1630 (Friday)).

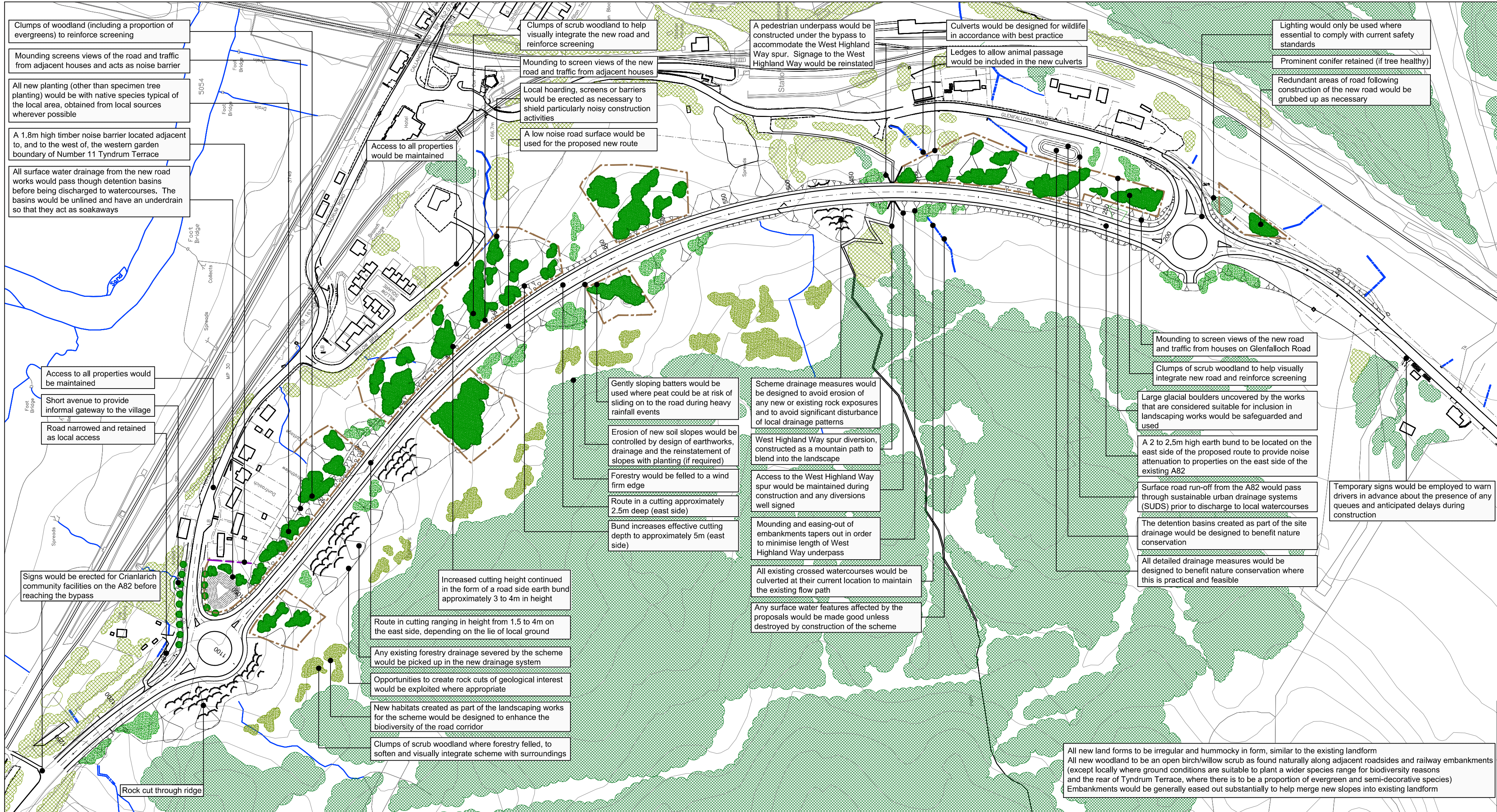
- The offices of Loch Lomond and Trossachs National Park Headquarters
National Park Headquarters
Carrochan
Carrochan Road
Balloch
G83 8EG
- The offices of Stirling Council
Council
Viewforth
Stirling
FK8 2ET
08.45-16.45 (Mon-Fri);
- Crianlarich Post Office
Station Road
Crianlarich
FK20 8QN
9.00-12.30 and 13.30-17.30 (Mon, Tue, Thu & Fri)
9.00-13.00 (Wed) and 9.00-12.30 (Sat).

The ES can also be viewed on Transport Scotland website:
www.transportscotland.org.uk

The ES comprises the main text and also a Non-Technical Summary (NTS) which is bound into the front of the main text and is also available as a free-standing document.

Copies of the ES are available in hard copy for £150 or on CD for £10 (both including postage and packing). VAT is chargeable on CDs. The NTS (which is available free of charge) and the main ES are available from the Director of Major Transport Infrastructure Projects at Transport Scotland (address as above).

Comments on the proposals or their environmental effects can be sent in writing to the Director of Major Transport Infrastructure Projects at Transport Scotland within six weeks of the date of publication of the notice for the Environmental Statement.



- Key:
- Existing deciduous woodland
 - Existing conifer plantation
 - Watercourse
 - Noise barrier
 - Rock cuts
 - Avenue tree planting
 - New woodland planting
 - New woodland planting (outwith deer fencing)
 - New woodland planting (for Forestry Commission)
 - Proposed CPO line
 - Deer fencing



Drawn by: KM Checked by: AF Date: 09/09

A82(T) Crianlarich Bypass

NTS Figure 2: Key Features of the Scheme

Not to scale



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