



# A83 Rest and Be Thankful

The A83 Rest and Be Thankful Long-Term Solution  
Environmental Impact Assessment Report  
Volume 1 – Non-Technical Summary

# 1. Introduction

## 1.1. Background

- 1.1.1. The A83 Trunk Road is one of two east-west strategic trunk roads that connects Argyll and Bute to the central belt of Scotland, making it a vital link in the region's transportation infrastructure. The A83 is a 98 mile (158km) road originating in Tarbet, where the A82 and A83 meets at the junction on the western side of Loch Lomond. It then ends in Campbeltown, near the southern tip of the Kintyre Peninsula.
- 1.1.2. The section of the A83 through Glen Croe, between Ardgartan and the Rest and Be Thankful viewpoint at the A83 / B828 junction includes the highest point along the A83 where hillsides have a history of instability leading to regular road closures and diversions.
- 1.1.3. The location of the A83 'Proposed Scheme' as it passes through Glen Croe is shown below.

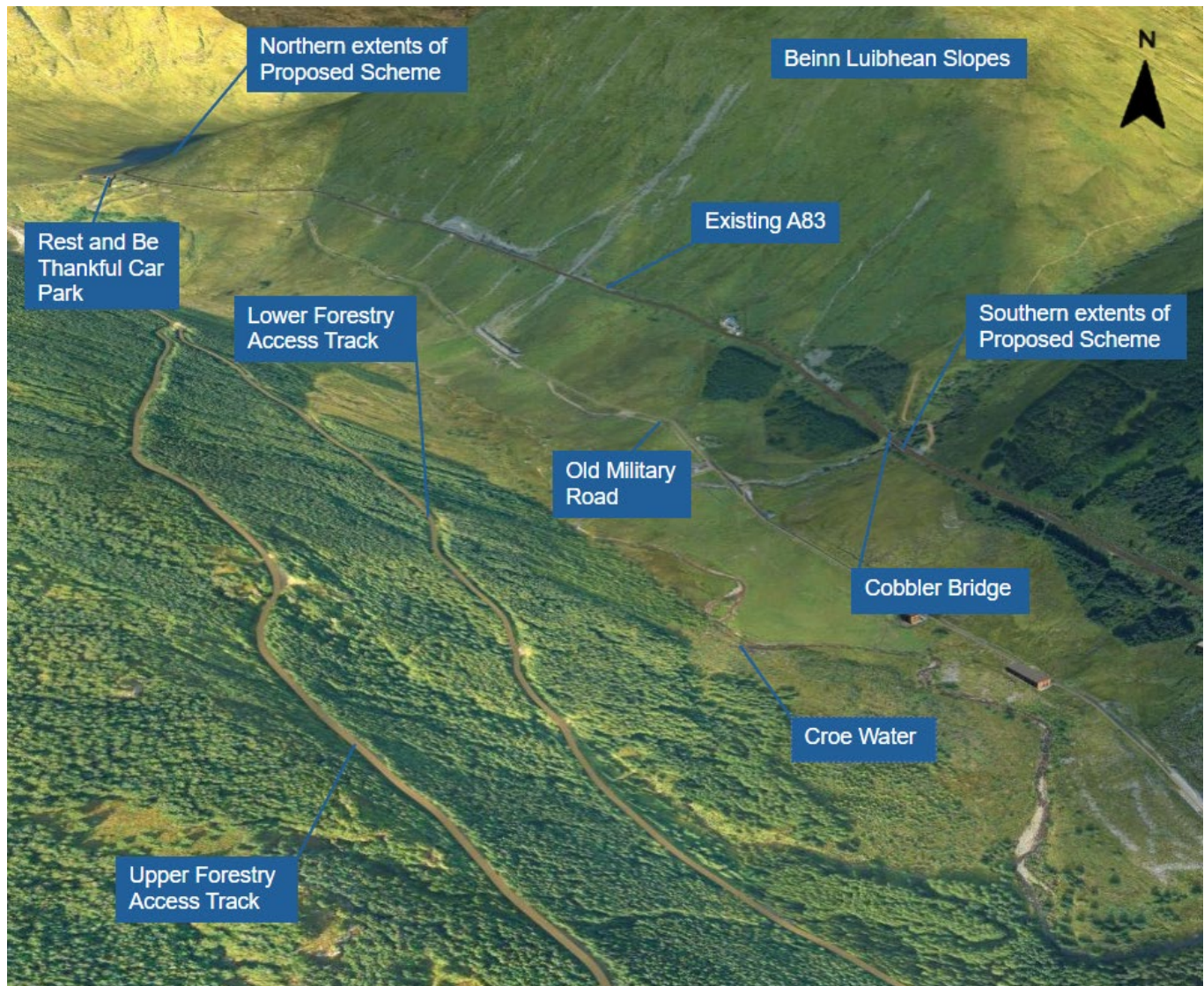


Figure 1 – location of the Proposed Scheme



1.1.4. In line with the recommendations of [Strategic Transport Projects Review 2 \(STPR2\)](#) and following major landslide events at the Rest and Be Thankful in August and September 2020 (the largest recorded in the area), the then Cabinet Secretary instructed Transport Scotland to investigate a long-term, resilient, and sustainable solution to the problem of landslides in Glen Croe. The Access to Argyll and Bute (A83) project team was commissioned with developing a resilient and sustainable road to Argyll and Bute to address the landslide issues at the Rest and Be Thankful.

Figure 2 – key features within Glen Croe



## 1.2. Environmental Impact Assessment

- 1.2.1. The Proposed Scheme Environmental Impact Assessment (EIA) was undertaken in line with the [Roads \(Scotland\) Act 1984](#) as amended by [The Roads \(Scotland\) Act 1984 \(Environmental Impact Assessment\) Regulations 2017](#) (hereafter referred to as the 2017 Roads EIA Regulations).

- 1.2.2. An EIA of the Proposed Scheme is required under European and Scottish legislation. The EIA Report reports the findings of the EIA which has been undertaken in line with the Design Manual for Roads and Bridges (DMRB). The purpose of the EIA is to investigate the likely effects of the Proposed Scheme on the environment, people, communities and businesses.
- 1.2.3. This Non-Technical Summary (NTS) describes the Proposed Scheme and the development of the design. It provides a summary of the findings, including those key aspects and impacts documented in the EIA Report and which are deemed to be of particular importance. The environmental assessment involves three key steps:
- assigning a value / sensitivity to receptors;
  - determining the magnitude of impact upon the receptors; and,
  - determining the significance of the effect the Proposed Scheme would have.
- 1.2.4. The significance criteria referred to in the EIA Report is on a scale (very large, large, moderate, slight, neutral) and can be positive (beneficial) or negative (adverse).
- 1.2.5. EIA is an important design tool which, through development of the Proposed Scheme design, has provided the opportunity to avoid or limit adverse effects upon the environment.
- 1.2.6. To inform the EIA process, information has been gathered through consultation (including public exhibitions and a regular meeting with key environmental bodies), surveys and technical studies which have all informed the decision making throughout the design process. This has provided opportunities to lessen adverse effects where practicable, for example by incorporating measures to avoid or reduce potential adverse effects (called mitigation).

## 1.3. Need for the Proposed Scheme

- 1.3.1. The Proposed Scheme is supported by the following national policies:
- [National Transport Strategy 2 \(NTS2\)](#);
  - [Strategic Transport Projects Review 2 \(STPR2\)](#); and,
  - [National Planning Framework 4 \(NPF4\)](#).

- 1.3.2. Published in 2020, the NTS2 sets out a transport strategy for Scotland. The Proposed Scheme would improve the safety and resilience of the transport system; a key aim of NTS2.
- 1.3.3. STRP2 was published in 2022 and aids in the delivery of the priorities outlined in NTS2. In line with Recommendation 29 in STPR2 and following major landslide events at the A83 in Glen Croe in August and September 2020, Transport Scotland started progressing proposals for a long-term, resilient, and sustainable solution for the A83 Rest and Be Thankful.
- 1.3.4. NPF4 was adopted in 2023 and sets out, through Spatial Principles, where development and infrastructure are required across Scotland. This framework identifies the route through Argyll and Bute as one of Scotland’s ‘strategic connections’.
- 1.3.5. Additionally, the Proposed Scheme is supported by the [Scottish Government’s Infrastructure Investment Plan \(IIP\)](#) which states that the government is “*committed to an infrastructure solution to address the A83 Rest and Be Thankful landslip risks*”.

## 1.4. Proposed Scheme Objectives

- 1.4.1. The following objectives have been developed by Transport Scotland based on the problems and opportunities relating to the A83 through Glen Croe:
- Resilience – Reduce the impact of disruption for travel to, from and between key towns within Argyll and Bute, and for communities accessed via the strategic road network.
  - Safety – Positively contribute towards the Scottish Government’s Vision Zero road safety target by reducing the number and severity of accidents on the road network.
  - Economy – Reduce geographic and economic inequalities within Argyll & Bute through improved connectivity and resilience.
  - Sustainable travel – Encourage sustainable travel to, from, and within Argyll & Bute through facilitating bus, active travel, and sustainable travel choices.

- Environment – Protect the environment, including the benefits local communities and visitors obtain from the natural environment, by enhancing natural capital assets and ecosystem service provision through delivery of sustainable transport infrastructure.

1.4.2. The EIA process facilitates achieving these objectives by avoiding and / or reducing environmental effects where possible, and through enhancing the environment and improving sustainability.

## 1.5. Consideration of Alternatives

1.5.2. An initial study (comprising a [Preliminary Engineering Services DMRB Stage 1 Assessment](#) and associated [Strategic Environmental Assessment](#)) was undertaken where 11 potential corridors were considered, with a further four corridors identified following public consultations. Assessments were undertaken taking account of environmental, engineering, economic, and traffic effects, with Corridor 1 (Glen Croe) taken forward for further, detailed assessment.

1.5.3. Within the preferred route corridor, five Options were developed to protect the A83 and its users from landslide and rock fall, with options considered generally comprising tunnels, viaducts and debris flow shelters. These options are outlined in the [DMRB Stage 2 Scheme Assessment Report](#).

1.5.4. The assessment of these five Options considered environmental, engineering, and economic factors as well as the advantages and disadvantages of each. From this assessment, it was recommended that the Brown Scheme Option (a debris flow shelter along the line of the existing A83) be taken forward as the preferred route.



# The Proposed Scheme



## 2. The Proposed Scheme

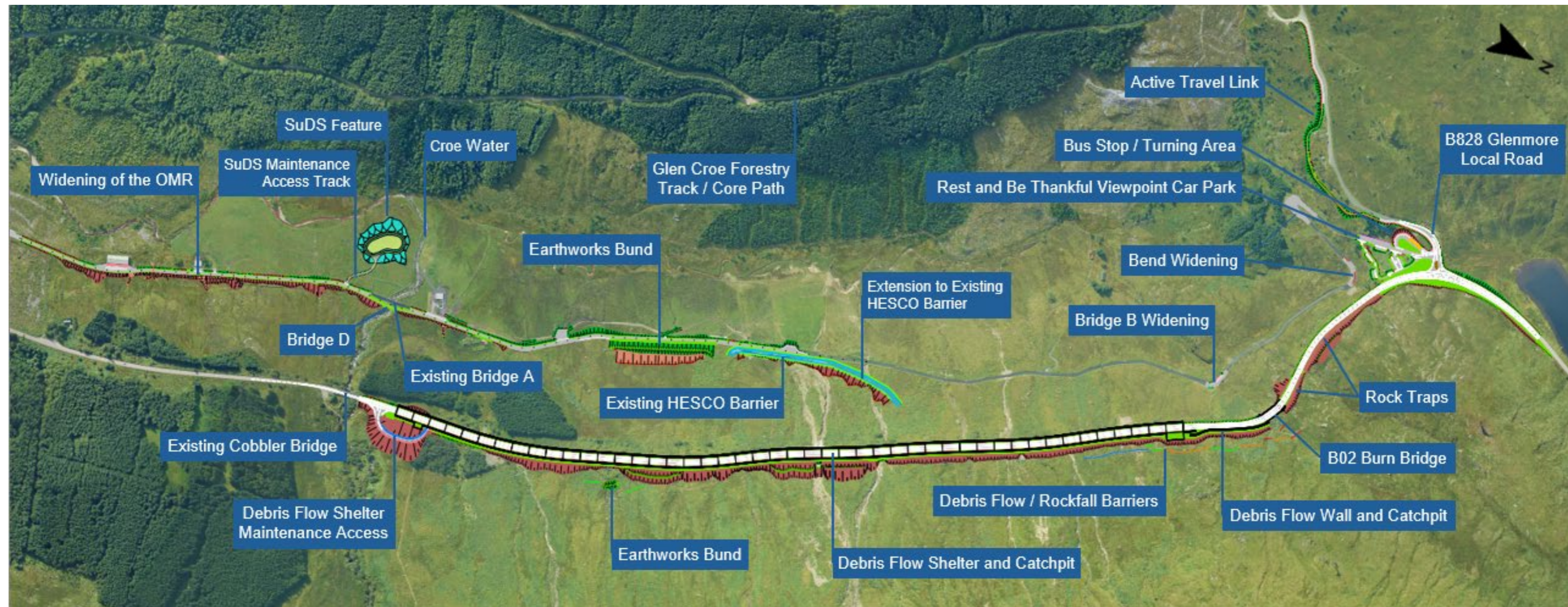
### 2.1. Design Development

- 2.1.1. The DMRB Stage 3 design for the Proposed Scheme, as assessed and reported in the EIA Report, is the result of approximately 12 months of design development of the preferred route option, identified at DMRB Stage 2.
- 2.1.2. The project environmental team has influenced the design based on knowledge gained through the EIA process, working closely with the engineering teams, consultees, and Transport Scotland. Through this process the design has been developed and refined in an iterative process to reach the final DMRB Stage 3 design.
- 2.1.3. Some of the key developments during DMRB Stage 3 that avoided or reduced impacts include the refinement to the drainage proposals to reduce impact on the Beinn an Lochain Site of Special Scientific Interest (SSSI), the realignment of an Active Travel Link to avoid impact on heritage assets, and the refinement of Sustainable Drainage Systems (SuDS) features to better fit within the landscape character of Glen Croe and to avoid disturbing an area of peat at Loch Restil.
- 2.1.4. Other measures embedded within the Proposed Scheme include the creation of four Biodiversity Net Gain (BNG) and Natural Capital enhancement sites which will promote habitat creation and enhancements to deliver on the NPF4. Additionally, there are two ecological mitigation areas proposed within Glen Croe that will include the installation of 14 nesting boxes, 20 bat boxes, and a receptor site for reptiles.

## 2.2. Key Design Elements of the Proposed Scheme

- 2.2.1. The Proposed Scheme is generally located on the line of the existing A83. To protect road users from debris flows, landslides and other such events, a structure known as a debris flow shelter (a roof over the road), will be installed to cover a section of the road considered to be at highest risk. The Proposed Scheme includes a catch pit on the uphill side of the debris flow shelter structure to channel landslip material, allowing it to be dealt with safely and efficiently, without adversely impacting the road user or downstream slope.
- 2.2.2. The Proposed Scheme will be approximately 2.25km long, of which the debris flow shelter and catch pit will be approximately 1.4km. The catch pit and protection wall will extend a further 146m, to protect the road user as the road moves beyond the Beinn Luibhean slope and area of highest vulnerability.
- 2.2.3. An improved junction between the A83 and the B828 Glenmore local road will be provided as well as changes to the existing bus stop and turning area and a new access to the Rest and Be Thankful Viewpoint car park. The majority of walkers, cyclists and wheelers will continue to use the surrounding network of paths, such as the parallel core paths within the forested area on the other side of Glen Croe or the OMR. A further Active Travel Link has also been developed as part of the Proposed Scheme to link the Rest and Be Thankful Viewpoint car park to the Glen Croe Forestry Tracks / Core Path on the lower slopes of Ben Donich.
- 2.2.4. Interventions to the Old Military Road (OMR) within Glen Croe (refer to Figure 3) will be constructed, consisting of debris catch fences, temporary bunds, widening of the existing OMR, targeted widening of bends to ease movement for larger vehicles, junction improvements, and improved drainage and culverts.

Figure 3 – The Proposed Scheme



- 2.2.5. The OMR interventions will be completed prior to the commencement of construction on the A83 to reduce disruption to road users and provide a safe and more resilient diversion route when the A83 is closed.

## 2.3. Delivering the Proposed Scheme

- 2.3.1. The Proposed Scheme will be submitted for approval to the Scottish Ministers through the Roads (Scotland) Act 1984 (as amended). If approved, construction is anticipated to last four to five years.
- 2.3.2. The final detailed design may be refined by the Appointed Contractor, but it must still meet the requirements of the EIA Report. Should the Appointed Contractor refine the design which has been assessed by the EIA, then an environmental review of those refinements will be required to assess whether impacts are greater (or significantly different) than as reported in the EIA Report, and whether any additional impacts are identified, together with the measures required to mitigate such impacts.

## 2.4. Consultation and Scoping

- 2.4.1. Consultation with a wide range of stakeholders has been ongoing since 2020 throughout the design development and EIA process for the Proposed Scheme. The purpose of this consultation was to:
- ensure that statutory environmental consultees (i.e. those with responsibilities for protecting the environment and regulating any activities which may adversely affect existing environmental conditions), other non-statutory bodies with a particular interest in the environment, and the public are informed of the Proposed Scheme and are provided with an opportunity to comment;
  - collect information regarding environmental site conditions;
  - seek consultee input to the design to minimise impacts;
  - inform the scope of the EIA and reporting; and,
  - help to establish key environmental issues and to identify potential impacts and mitigations to be considered during the EIA.



- 2.4.2. The A83 Environmental Steering Group (ESG), comprising statutory and non-statutory stakeholders, has met bi-monthly throughout the EIA process. The purpose of this group was to provide an opportunity to discuss requirements relating to statutory responsibilities and other issues, and to provide regular updates on and opportunities for contribution to emerging design and assessment work.
- 2.4.3. Additional, focussed stakeholder consultations were also undertaken with statutory organisations, landowners, and other non-statutory bodies which were reviewed by the project team and considered for informing the design and assessment process.

The image shows a vast mountain landscape under a cloudy sky. In the foreground, there are tall, thin grasses. A paved road winds through the middle ground, curving through green and brownish hillsides. In the background, a large, rugged mountain peak rises against the sky. A semi-transparent teal overlay is positioned in the center of the image, containing the text 'Environmental Impact Assessment' in white, sans-serif font.

# Environmental Impact Assessment

## 3. EIA Findings

### 3.1. Air Quality (EIA Report Chapter 7)

- 3.1.1. There are six human health receptors and one ecological sensitive receptor, within the study area. A review of baseline conditions has indicated that there are no air quality management areas (designated regions with high air pollution levels) likely to be affected by the Proposed Scheme and concentrations of relevant pollutants are low.
- 3.1.2. During construction, dust emissions may be generated by site activities, and an assessment has been undertaken to identify the risk and define appropriate mitigation. With mitigation and monitoring in place, it is unlikely there would be significant adverse effects at nearby receptors.
- 3.1.3. The numbers of vehicles required during the construction period is not expected to result in a significant effect on air quality at human health or ecological receptors.
- 3.1.4. The effects of traffic management measures during construction on air quality at the designated ecological site, Beinn an Lochain SSSI have been assessed and it is not expected that the relevant habitats within this site would be significantly affected during the construction period.

### 3.2. Cultural Heritage (EIA Report Chapter 8)

- 3.2.1. The cultural heritage assessment has identified features which may be physically affected or affected due to changes to setting.
- 3.2.2. There is one designated and 66 non-designated cultural heritage assets within the Proposed Scheme and its study area. These include one Category C listed building, the Rest and Be Thankful Stone. Most of the non-designated heritage assets are post-medieval or modern in date, with many of the modern sites related to World War II and mid-20th century motor racing.

3.2.3. There would be non-significant, adverse construction impacts on 15 heritage assets, including those related to features on the OMR such as quarries, bridges and sections of wall. There would also be an impact on High Glen Croe due to the visibility of the debris flow shelter. There would be a non-significant, beneficial impact on the Rest and Be Thankful Stone as its surroundings would be improved. Mitigation measures including archaeological investigations have been identified to reduce effects and ensure a record of heritage assets where appropriate.

**Figure 4 – Rest and Be Thankful stone**





### 3.3. Landscape and Visual Effects (EIA Report Chapters 9 and 10)

- 3.3.1. The existing A83 lies within Glen Croe with the 'Arrochar Alps' surrounding. The Croe Water crosses the central part of the glen. The rocky pass at the Rest and Be Thankful marks the gateway to Glen Kinglas and to the wider Argyll area beyond. Woodland is a key feature with the presence of extensive conifer plantations and some mixed woodland.
- 3.3.2. The Proposed Scheme (debris flow shelter and HESCO barrier shown on Figure 5) is entirely within the Loch Lomond and The Trossachs National Park. The Proposed Scheme has sought to achieve a best landscape fit design to fit with existing landforms to integrate with the surrounding landscape. For example, a green roof and slanted piers for the debris flow shelter would improve the aesthetic. At present both vertical and slanted piers are possible. There are very limited vertical features or elements within Glen Croe – excepting the communications masts. The slanted piers are considered to align with the hill slope angles and the existing elements. Additional mitigation includes
- retention of existing trees and vegetation, where possible
  - planting to replace trees lost and
  - use of native species for replanting and seeding.
- 3.3.3. Significant effects are predicted on localised areas of landscape character within the Loch Lomond and the Trossachs National Park during construction. This is mainly due to the construction of the debris flow shelter and retaining walls, lighting and drainage features. The operation of the Proposed Scheme is likely to have a significant effect on the Glen Croe - the Upland Glens Landscape Character Type.
- 3.3.4. Significant effects are predicted on all visual receptors (people) during construction due to the nature and scale of the engineering works.

Figure 5 – Debris Flow Shelter (showing options for both vertical and slanted piers) and HESCO Barrier



- 3.3.5. At the winter of year one (the opening year) significant effects are predicted for visual receptors (people) represented by viewpoints at Glen Croe Farm, the Rest and Be Thankful car park and on areas of Ben Donich. This is mainly due to the introduction of the structural elements in close proximity to these high/very high sensitivity receptors and that any planting mitigation will not yet have established to soften the Proposed Scheme. By the summer of year 15, when planting has become established to soften the new elements, there are significant effects predicted for people at the Rest and Be Thankful car park and on the path on Ben Donich.
- 3.3.6. However this would not adversely affect the focus of the view which would remain the hill summits in the near and distant horizons.

### 3.4. Biodiversity (EIA Report Chapter 11)

- 3.4.1. The Glen Etive and Glen Fyne Special Protection Area (SPA), Loch Lomond Woods Special Area of Conservation (SAC), Beinn an Lochain SSSI are all located within the vicinity of the Proposed Scheme. Taking mitigation into account there are no potential impacts on the SPA and SAC. There would be a direct impact on the SSSI due to anticipated localised habitat loss. Risks of indirect effects on designated sites will be managed through the implementation of pollution controls embedded in the Construction Environmental Management Plan (CEMP) and a Landscape and Ecological Management and Monitoring Plan (LEMMP).

- 3.4.2. There are multiple habitats present including upland flushes, fens and swamps, blanket bogs and calcium-rich springwater-fed fens. There would be permanent and temporary habitat losses. Additional compensation will be provided through habitat enhancement. There is potential for indirect impacts on these habitats through construction by spillages, dust and excavation. However, risks of indirect impacts from construction such as pollution and run off will be managed through SuDS, suitable road drainage and CEMP, and appropriate mitigation will be used to reduce impacts. The residual significance of effects on terrestrial habitats outside designated sites is predicted to be neutral. Run-off during construction will be managed through settlement basins and source control measures such as sediment fences (where required). The aquatic habitats (tributaries of Croe Water, High Glen Croe Tributary and Loch Restil) would see beneficial impacts overall due to improved road drainage design during construction and operation and habitat enhancement works.
- 3.4.3. There is potential for effects on species (without mitigation) such as breeding birds, otters, pine martins, red squirrels, bats, badgers, invertebrates and reptiles from construction activities such as site clearance, disruption to animal commuting routes, construction infrastructure, lighting and excavation. There may be impacts from operation in the form of potential disturbance to species during maintenance works and habitat degradation due to pollution. However, impacts will be managed through mitigation measures such as mammal fencing and Species Protection Plans (SPPs), and methods and compensation to be set out in mitigation licences for some species. The SPPs would set out mitigation measures, including the presence of an Ecological Clerk of Works, and pre-construction surveys. Taking mitigation measures into account, the significance of effects on species is neutral.

## 3.5. Geology, Soils and Groundwater (EIA Report Chapter 12)

- 3.5.1. The determination of potential effects is preliminary, as actual impacts would be dependent on the results of ground investigations and monitoring regimes. It is also considered likely to be a conservative assessment, as in most cases the levels of impact to receptors would likely be lower than the levels outlined on the precautionary basis in this Chapter. Furthermore, given the large size of the receptors and the localised extent of the impacted area, it is further considered likely that the actual impact would be less than that assessed.

- 3.5.2. The impact on carbon-rich soils during construction is not considered to be significant. Approximately, 850 tonnes of carbon stored in the soil within the Proposed Scheme Boundary stands to be excavated or otherwise disturbed in the course of construction. It is recommended that lost carbon storage is offset by re-using extracted peat on-site or off-site as part of local peatland habitat restoration works.
- 3.5.3. No peat is expected to be extracted during operation of the Proposed Scheme, hence there is no operational impact. The management, re-use and storage of peat will be crucial to the successful retention of landscape character and the prevention of degrading the surrounding carbon-rich soils and an Outline Peat Management Plan (PMP) has been prepared. The PMP will be a working document which will be updated following further stages of ground investigation and design development.
- 3.5.4. The residual beneficial effects relate to the introduction of a modern SuDS treatment system for the LTS, in comparison to the untreated status of the existing A83.
- 3.5.5. The Proposed Scheme has a non-significant effect on geology, soils and groundwater. During construction, risks from unexpected contamination that may arise will be dealt with through the CEMP, Materials Management Plan (MMP) and Site Waste Management Plan (SWMP).

## 3.6. Material Assets and Waste (EIA Report Chapter 13)

- 3.6.1. The construction of the Proposed Scheme will require the use of construction materials and result in the generation of waste, which will require management and disposal.
- 3.6.2. Design and mitigation measures have been proposed that will reduce the use of materials, reduce waste generation and enable the reuse, recycling and recovery of materials and waste, thereby reducing waste disposal to landfill.

- 3.6.3. This would be achieved by applying the principles of design for sustainable and resource efficient construction, reusing earthworks on site (and off site) where technically and environmentally suitable, incorporating recycled content in the design and specification, and applying good practice for material and waste management on site. Prior to construction, the contractor will be required to prepare a CEMP including a MMP and SWMP that will set out the approach to delivery.
- 3.6.4. The assessment of effects on material assets during construction indicates that the residual impact is not considered significant.
- 3.6.5. The assessment of the generation, management and disposal of waste during construction works indicates that the residual impact for inert, non-hazardous and hazardous waste is not considered significant.

### **3.7. Noise and Vibration (EIA Report Chapter 14)**

- 3.7.1. In the construction phase, adherence to best practice mitigation measures, secured through a Noise and Vibration Management Plan (NVMP) as part of the CEMP, will appropriately control and minimise construction noise impacts as far as is reasonably possible.
- 3.7.2. The noise impacts from the OMR diversion route are considered at three noise sensitive receptors, the OMR informal walking, cycling and horse-riding (WCH) route, Laigh Glencroe (dwelling) and High Glencroe (dwelling).
- 3.7.3. On the OMR informal WCH route, the transfer of traffic onto the OMR diversion result would result in a significant adverse effect to walkers cyclists and horse-riders who would be required to use a shuttle bus / vehicle thus preventing them from using the OMR under traffic management.
- 3.7.4. At Laigh Glencroe, traffic noise levels will be lower than at present because the OMR is further away than the A83. The noise decrease is determined to be a significant benefit.
- 3.7.5. At High Glencroe, traffic noise levels would be higher than at present because the OMR alignment is closer than the A83. The noise increase is determined to be not significant because the absolute noise levels remain low.

- 3.7.6. The Proposed Scheme includes only minimal changes to the carriageway alignment. Operational traffic movements are not expected to change vehicle flow, composition of vehicle types (e.g. cars and heavy vehicles), and vehicle speeds. Significant effects are not expected.

### 3.8. Population and Human Health (EIA Report Chapter 15)

- 3.8.1. The A83 provides vital access to services for people in the region as well as to facilities they need and opportunities for social interaction with friends and family. It is also an important route for tourism in / visitors to the wider area. As such, its operation is of key importance to the health and wellbeing of the local and wider population.
- 3.8.2. Consideration of construction impacts of the Proposed Scheme has shown that there would likely be impacts associated with disruption or changes to access to residential properties, as well as community facilities and features such as WCH routes. Construction activities could also potentially impact health and wellbeing through noise, air or water pollution.
- 3.8.3. While these construction impacts are for the most part considered to not be significant, there would remain some temporary impacts (such as disruption) which could not be removed and could be considered significant. Examples include the temporary loss of the Rest and Be Thankful Car Park / Viewpoint, as well as some potential noise impacts at some sensitive areas.
- 3.8.4. Within Glen Croe some agricultural and forestry activities utilise the OMR and during construction there would likely be restrictions on this use which would impact these activities, as well as a permanent loss of land from within the boundaries of the land holdings. These could be considered significant in some aspects, such as access to farm buildings, or movement of livestock. Nevertheless, discussions are taking place with relevant stakeholders to ensure that effects are minimised as much as possible.
- 3.8.5. During operation, changes to how one of the farms operates (i.e. movement of livestock and lost ownership of OMR) are anticipated to lead to a significant adverse impact.

- 3.8.6. The operation of the Proposed Scheme would also result in beneficial impacts such as the redesigned Rest and Be Thankful Car Park / Viewpoint which would be enhanced and returned to use with the provision of a new active travel link providing access to the forestry track west of the OMR.
- 3.8.7. It is also the case that the enhancement of the A83 would provide a robust and reliable link through Glen Croe in Argyll, with greater levels of access and safety. This is of particular significance to health and wellbeing as it will provide reliable journeys to the local and wider community to access the services and facilities, including educational and health services, which they need and to visit friends and family. Businesses within the wider community should also benefit from the more reliable route.
- 3.8.8. In short, while impacts such as disruption to travel, or restrictions on access to certain areas, are inevitable during construction, ultimately the development of a robust and reliable A83 has been shown to be of vital importance to the health and wellbeing of local and wider communities.

### 3.9. Effects on Climate (EIA Report Chapter 16)

- 3.9.1. The construction and operation of the Proposed Scheme would lead to the release of Greenhouse Gas (GHG) emissions to the atmosphere, contributing to climate change.
- 3.9.2. The construction phase of the Proposed Scheme is predicted to release 82,809 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) over the year construction period. The operation phase of the Proposed Scheme is predicted to release an additional 12,750 tCO<sub>2</sub>e compared to the Do-Minimum scenario.
- 3.9.3. Suggested mitigation measures, in line with the DMRB LA 114 carbon reduction hierarchy, would reduce GHG emissions from both the construction and operation phases.



- 3.9.4. The Proposed Scheme is predicted to contribute 84,783 tCO<sub>2</sub>e towards the Scottish Government carbon reduction targets over a period from 2026 to 2045. However, the Proposed Scheme would contribute no more than 0.081% to any Scottish Government carbon reduction target.
- 3.9.5. The 2045 target is 100% reduction (i.e. Net Zero) and therefore any GHG emissions would breach this target. However, it is expected that residual GHG emissions would still occur in 2045 and require offsetting. This offsetting would be undertaken at a national level and would not be required to be offset at a project level. The Proposed Scheme would emit only 48 tCO<sub>2</sub>e in 2045, a negligible amount of emissions to offset.
- 3.9.6. Given the contribution of the Proposed Scheme to the carbon reduction targets it is considered the Proposed Scheme is not predicted to impact the Scottish Government's ability to any of its carbon reduction targets.

### 3.10. Climate Vulnerability (EIA Report Chapter 17)

- 3.10.1. The climate vulnerability assessment ensures that climate change, and impacts associated with extreme weather, are considered during planning so that they can be avoided and, if that is not possible, mitigated during the construction and operation of the Proposed Scheme.
- 3.10.2. The baseline examination of climate projections has confirmed that the study areas climate is expected to change in the future.
- 3.10.3. The assessment of potential impacts finds that the Proposed Scheme could be vulnerable to impacts linked to these changes in the climate, for example creating new impacts or worsening existing impacts assessed in the EIA. Mitigation measures that are built into the design or identified to address impacts are presented and after consideration of this mitigation none of the potential climate vulnerability impacts are found to be significant.

### 3.11. Major Accidents and Disasters (EIA Report Chapter 18)

- 3.11.1. The major events assessment reports on the potential vulnerability of the Proposed Scheme to major events. It outlines the potential for major events to impact on human health and / or the environment. The assessment has considered the impacts of the construction and operation of the Proposed Scheme.
- 3.11.2. The potential for identified relevant major events to result in a significant adverse environmental effect have been evaluated using a risk based approach taking into account planned design and embedded mitigation, and the acceptability of the subsequent risk to potential receptors.
- 3.11.3. The assessment has identified four major event types to which the Proposed Scheme may be vulnerable, one during the construction phase (associated with landslides) and three during the operational phase (associated with landslides, flooding of Croe Water and surface water flooding). It is considered that risk of these major events occurring would be managed to be as low as reasonably practicable with the implementation of the mitigation measures identified.

### 3.12. Road Drainage and the Water Environment (EIA Report Chapter 19)

- 3.12.1. The Proposed Scheme is within the catchments of the Croe Water and Kinglas Water, which includes Loch Restil within the boundary of the Beinn an Lochain Site SSSI. The steep topography dictates the distribution of channels draining the slopes between the A83 and the OMR which have been subject to erosion, modification and engineered measures. The current A83 and OMR discharge untreated runoff to the local environment.

#### Construction

- 3.12.2. Construction of the Proposed Scheme will be complex and within a site that is on steep, unstable ground. Erosion of slopes and/or watercourses may occur as a result of construction activities leading to increased sediment deposition. At the Debris Flow Shelter, an upslope catch pit for debris flows shall intercept hillslope and local watercourses and will involve modification to a large number of watercourses.

- 3.12.3. Good design and mitigation measures to reduce impacts will apply before and during the construction phase. The Appointed Contractor will be required to follow good environmental practice and gain SEPA approval for key aspects such as sediment management and flood risk response.
- 3.12.4. During construction, due to the challenging terrain and activities planned over an extended period significant effects are predicted to occur to the water quality and hydromorphology (physical character of watercourse) of the Croe Water and a number of its tributaries. Other local watercourses and Loch Restil are subject to non-significant residual adverse effects for hydromorphology, water quality and flood risk. A beneficial effect is predicted to occur to the High Glen Croe private water supply, on the basis that an alternative source shall temporarily remove any connection to potentially contaminated runoff from the A83.

### Operation

- 3.12.5. The Proposed Scheme will be designed to enable flows and the majority of sediment to pass through, improving resilience of the existing culverted channels, including the Croe Water where enhancement is proposed as part of the BNG strategy. The design of the Proposed Scheme will include SuDS measures to store and treat surface runoff from the A83, improving water quality during operation.
- 3.12.6. A significant beneficial effect has been assessed for the Croe Water for water quality due to introduced treatment of A83 carriageway runoff, with other beneficial (non-significant) effects assessed for tributary channels to the Croe Water, Kinglas Water and Loch Restil relating to water quality. One watercourse has been assessed as a non-significant beneficial effect, due to replacement of a culvert with a bridge. With the introduction of a permanent alternative source for High Glen Croe private water supply, this is assessed as a significant beneficial effect.

3.12.7. It is considered that the overall outcome for road drainage and the water environment during the construction phase would be significant adverse and monitoring measures have been recommended. The overall outcome for the operation phase is more nuanced and is considered overall to be not significant with some significant adverse effects on the physical characteristics of a number of Croe Water tributaries and sediment supply to the Croe Water offset by beneficial effects on water resources and water quality across all surface water receptors.

### 3.13. Cumulative Effects (EIA Report Chapter 20)

3.13.1. The potential for a combined effect of various environmental impacts on a single receptor was considered based on each of the environmental assessments carried out in the EIA Report.

3.13.2. During construction, effect interaction cumulative effects will not lead to any significant cumulative effects on the two residential receptors or Beinn an Lochain SSSI. Significant adverse cumulative effects are anticipated even with the implementation of mitigation measures outlined in the CEMP for:

- One private farm holding within Glen Croe (Farm Holding No.1)
- WCH Routes and
- Rest and Be Thankful Car Park.

3.13.3. During construction watercourses are expected to have both significant beneficial and adverse cumulative effects.

3.13.4. During operation, the effect interaction cumulative effects will not lead to any significant effects on Beinn an Lochain SSSI. Significant beneficial and adverse cumulative effects are anticipated and will not be reduced by mitigation for the below receptors;

- Two residential receptors
- Watercourses
- WCH routes and
- Rest and Be Thankful Car Park.

3.13.5. The private farm holding within Glen Croe (Farm Holding No.1) is anticipated to experience significant adverse cumulative effects.

3.13.6. No significant cumulative effects of the Proposed Scheme in combination with other developments are expected.

### 3.14. Compliance with Polices and Plans

3.14.1. The assessments undertaken as part of the EIA process consider the Proposed Scheme's compliance with planning policy. In principle, the development of the Proposed Scheme is supported in planning policy with the aims and objectives reflected in national policy, such as the [National Planning Framework 4](#) (NPF4) and the National Transport Strategy 2 (NTS2).

3.14.1. Mitigation measures are proposed to address the potential impacts as outlined in the relevant EIA chapters. The mitigation is expected to reduce potential impacts of the Proposed Scheme to a level that avoids almost all potential policy conflict with the exception of Loch Lomond and the Trossachs National Park Local Development Plan 2017-2021 Policy 2 due to there being a residual effect on a number of landscape and visual receptors.

## 4. Review and Comments

A copy of the Environmental Impact Assessment Report may be inspected, free of charge, during normal opening hours from 13 December 2024 to 07 February 2025 at:

Transport Scotland, George House, 2nd Floor, 36 North Hannover Street, Glasgow, G1 2AD

Three Villages Hall, Arrochar, G83 7AB

Campbeltown Library, Aqualibrium, Kinloch Road, Campbeltown, PA28 6EH

Dunoon Library, Queen's Hall, 9 Argyll Street, Dunoon, Argyll, PA23 7HH

Lochgilphead Library, Lochgilphead Community Centre, Manse Brae, Lochgilphead, PA31 8XQ

Please note that normal opening hours might vary during this period

Copies of the EIA Report can also be obtained from Transport Scotland, George House, 2nd Floor, 36 North Hanover Street, Glasgow, G1 2AD at a charge of £150 for a hard copy. Requests for further information about the project may be sent to the same address.

A copy of the EIA Report is also available for inspection on [Transport Scotland's website](#).

Any person wishing to make any representations about the project and the EIA Report may do so in writing to the Director of Major Projects, Transport Scotland, George House, 2nd Floor, 36 North Hanover Street, Glasgow, G1 2AD. Any such representations must be received on or before 7 February 2025.

The Scottish Ministers will take into consideration any representations so made before deciding whether or not to proceed with the project with or without modifications.

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