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Appendix 1.1 Environmental Impact Assessment Record of Determination

A83 Rest and Be Thankful Medium Term Solution

Contents

Project Details

This document presents the detailed Environmental Impact Assessment (EIA) Screening and associated Record Of Determination under Section 55A(1) to (4) of Roads (Scotland) Act 1984 (as amended by The Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017).

Description

The A83 Trunk Road through Glen Croe is the highest point on the A83 (approximately 265m Above Ordnance Datum (AOD)) and lies in a known risk area for landslides and debris flow. These events have increased in frequency and severity over recent years due to an increase in intense and prolonged rainfall.

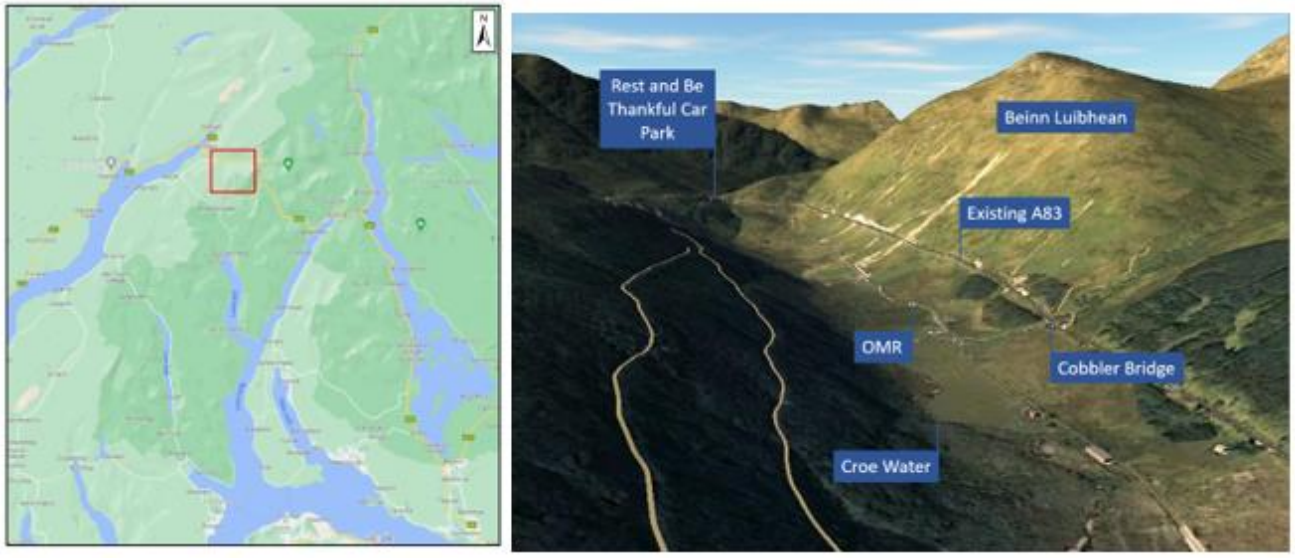
In addition to the development of a permanent solution to address the landslide and debris flow risk to the A83 (known as the 'Long-Term Solution' (LTS)), interventions are proposed to the existing Old Military Road (OMR) which runs parallel to the A83 (known as the 'Medium-Term Solution' (MTS)).

The purpose of the MTS, hereafter referred to as the 'Proposed Scheme', is to deliver a safe, proportionate and more resilient diversion route along the OMR when the A83 Trunk Road is closed. The interventions will be in place prior to the construction of the LTS and reduce disruption to road users during the LTS construction.

The Proposed Scheme location as it passes through Glen Croe is shown in Plate 1.

Location

Plate 1 – Proposed Scheme Location (red inset box) & A83 in Glen Croe



Key components of the Proposed Scheme include the following:

- debris catch fences
- HESCO and earthworks bunds
- widening of a 1.4km long section of the existing single-track OMR from 3.5m to 6.5m to provide an increased length of two-way carriageway
- targeted widening at sharp bends to ease movement for larger vehicles
- works to bridge parapets and creation of a temporary bridge structure
- junction improvements and
- improved drainage and culverts.

Through the introduction of these interventions, improvements will be made to safety, operational capacity and resilience, and reduce journey times during period of debris flow risk. There will also be an increase in the operational capacity of the OMR which is achieved by the road widening and bend improvements for vehicle tracking to improve journey times and journey time reliability for the route.

Safety measures include the landslide mitigation measures of bunds and fences to provide a barrier to any potential future debris flow or landslide events and provide a safer environment for either a diversion or the clean-up of the event.

In addition to the safety measures that are to be included, the proposed interventions improve the resilience of the route by upgrading drainage and watercourse crossings to provide additional capacity to allow the route to operate under a 1 in 50 year storm event.

The Medium Term Strategy (MTS) Options Assessment Report published in January 2023, sets out the option development and assessment process for the Proposed Scheme to improve the resilience of the diversion route when the A83 is closed due to landslides, flooding, or other incidents, prior to a Long-Term Solution (LTS) being introduced. The option development and assessment process considered and compared a range of options within Glen Croe. Based on the assessments undertaken, the OMR Interventions was recommended as the preferred option for the MTS.

Description of local environment

The section below provides a brief description of the local environment for the environmental topics for the Proposed Scheme (study areas referred to vary for each environmental discipline under consideration). Further detail can be found in the MTS EIA Screening / Scoping Report.

Air quality

A review of baseline conditions for the Proposed Scheme has indicated that there are no Air Quality Management Areas (AQMA) likely to be affected and concentrations of relevant pollutants are well below relevant National Air Quality Strategy (AQS) objectives and European Union (EU) Limit Values in the study area.

There are a small number of sensitive human health receptors and one ecological receptor located within the Air Quality study area. The closet designated site, the Beinn an Lochain Site of Special Scientific Interest (SSSI), is located c,50m north west of the of the Proposed Scheme.

Cultural heritage

There is one designated asset within the 250m study area, a Category C listed building (Glen Croe, Rest and be Thankful Stone (LB11816)), located at the western extent of the Proposed Scheme.

There is evidence of post-medieval agricultural activity, with sites such as a settlement at High Glen Croe (Canmore ID 150778, WoSAS ID 44648) and Mid Glen Croe (Canmore ID 150772, WoSAS ID 44649), shielings (WoSAS ID 68820) and a structure of uncertain date (WoSAS ID 68819). Quarries and walls are also recorded.

There are also a large number of assets associated with the OMR. As well as the road itself (Canmore ID 126550), referred to as Dumbarton – Tarbet – Inverary Road, associated remains include the Category C listed 'Rest and Be Thankful' Stone (LB18816), a milestone, and bridges.

Evidence of World War II military remains have also been identified, concentrated around the summit of the OMR. These assets relate to the Home Guard Stop Defence post (Canmore ID 293674) and include Nissen huts, structural remains of buildings, mortar mounting locations and evidence of pill boxes. The OMR became a popular venue for 'hill-climb' motorsport in the early 1900s.

Landscape and visual effects

The Proposed Scheme is located within the Loch Lomond and The Trossachs National Park (LLTNP) (Northern Area) and is adjacent to the North Argyll Area of Panoramic Quality. The northern section of the Proposed Scheme is within the Argyll Forest Park. Therefore, sensitive landscape receptors are associated with the Proposed Scheme, including the Special Landscape Qualities of the LTTNP.

The Landscape Character Type (LCT) of the immediate area is the 'Upland Glens – Loch Lomond and the Trossachs' (LCT 252) (Upland Glens – Loch Lomond and the Trossachs), consisting of narrow glen floor enclosed by steep hill slopes. The mountains surrounding the Proposed Scheme are part of the 'Highland Summits' LCT (LCT 251) (Highland Summits), consisting of high mountains generally lying above 800m. The land within the glen itself is largely used for rough grazing agriculture on the lower slopes, with commercial coniferous woodland plantations on the mid-slopes.

Adjacent to the northern extent of the Proposed Scheme there is a viewpoint and car park known as the 'Rest and Be Thankful' viewpoint. This offers a view south across Glen Croe and is the site of a Category C listed structure – 'Rest and Be Thankful' Stone.

There are two residential visual receptor properties within a 3km radius of the Proposed Scheme from which views of the Proposed Scheme may be afforded. There are recreational receptors associated with users of Core Paths, users of the Rest and Be Thankful Car Park viewpoint, users of the B828 Glen Mhor local road, users of the A83 Argyll Coastal Route, users of the OMR, and hikers on hillwalking trails.

Biodiversity

The Proposed Scheme is not located within any designated sites. However, several designated sites are present within the vicinity, including Beinn an Lochain SSSI which is located 50m north west of the Proposed Scheme.

Within the wider area, the Glen Etive and Glen Fyne Special Protection Area (SPA) is located 2.2km to the north of the Proposed Scheme and Loch Lomond Woods Special Area of Conservation (SAC) is located approximately 5.5 km to the east.

There are no non-statutory designated sites, or local wildlife sites, present within 1km of the Proposed Scheme.

Geology and soils

The Proposed Scheme is underlain by bedrock geology of the Beinn Bheula Schist Formation (BGS GeoIndex). Igneous intrusions within the South of Scotland Granitic suite are noted between Beinn Luibhean and The Cobbler and extend down to the north east of the Proposed Scheme.

The 2022 Ground Investigation (Jacobs, 2022), Access to Argyll and Bute (A83) Report on Preliminary Ground Investigation, undertaken by Raeburn, found ground conditions to be as expected, with granular soils found above Psammite, Semipelite and Pelite. Bedrock was encountered between 1.0m and 15.9m below ground level (bgl).

There are no geological designated sites (including Sites of Special Scientific Interest, Special Protection Areas, Ramsar, Geological Conservation Review or

National Parks) in the vicinity the Proposed Scheme. Though it should be noted that the Cobbler Geological Conservation Review Site is located 1km to the east.

The majority of the soils within the Proposed Scheme boundary comprise Peaty Podzols which are defined as well drained, acidic soils with bright colours and an organic surface layer (Scottish Environment National Map of Scotland (2022) Soil Maps). To the north-east and north-west of the Proposed Scheme are areas of Montain soils.

The Proposed Scheme is underlain by class 3 peatland, consisting of predominantly peaty soil with some peat soil (James Hutton institute (2024) 1:250,000 Land Capability for Agriculture (LCA) map).

The Proposed Scheme is underlain by a Low Productivity Bedrock Aquifer (British Geology Survey Geoindex (2022). BGS GeoIndex). The aquifer is described as having small amounts of groundwater near surface weathered zones and secondary fractures, with virtually all flow through fractures and other discontinuities. No superficial deposit aquifers are present beneath the Proposed Scheme.

The majority of the Proposed Scheme lies within the Cowl and Lomond Groundwater WFD body (ID 150689), with the groundwater body having an overall status of Good in 2020 (Scottish Environment Protection Agency (SEPA) Water Classification Hub (2015). SEPA Water Classification Hub). The northwest corner of the Proposed Scheme falls within the Oban and Kintyre Groundwater WFD body (ID 150698), which also had an overall classification of Good in 2020 (SEPA Water Classification Hub (2015)).

Historical ground investigation data showed that groundwater levels in the area are highly variable. Three rounds of groundwater monitoring were carried out between February and March 2009. The groundwater monitoring showed that groundwater levels recorded in February at the beginning of the monitoring period were generally higher than at the end of the monitoring period in March and that they varied between 3.26m to 9.10m bgl. Information provided by SEPA indicates no groundwater dependant public or private water supplies have been identified within the study area.

Areas considered suitable to support GWDTE have been identified within proximity to the Proposed Scheme. However, local characteristics indicate that communities with groundwater dependency are likely to be very limited, with the wet soil conditions on the steep slopes and valley floor of the study area considered to be primarily due to direct precipitation and surface water runoff contribution.

There is no Artificial Ground (Made Ground) within 250m of the site. However, the 2022 Ground Investigation (Jacobs, 2022) found Made Ground in several locations to a maximum depth of 1.80m bgl, which was associated with the earth works along the various roads and tracks along the Proposed Scheme. The Made Ground generally comprises gravelly soils, with occasional fragments of tarmac, cobbles and boulders.

Material assets and waste

The following key materials are anticipated to be required for construction of the Proposed Scheme. These are estimated to be likely maximum quantities required for the Proposed Scheme:

- Pavement (including foundation) – 4,650m^3

The SEPA Waste Sites and Capacity Tool (SEPA Waste Site Information) identifies that there are 92 landfill sites in the region - covered by the local authorities of Argyll and Bute, The Highlands, Inverclyde, North Ayrshire, Perth and Kinross, Stirling and West Dunbartonshire – with a total of 8Mt remaining capacity at the end of 2022. Depending on the final destination of the arisings, the appropriate SEPA exemptions and consents will be in place to ensure it is suitable for its intended purpose and has followed all appropriate regulatory process.

The following site arisings are likely to be generated during construction of the Proposed Scheme. These are estimated to be likely maximum quantities for the Proposed Scheme:

- Surfacing – 400m^3 surface course
- Earthworks cut – 6,000m^3 and
- Fill (reused earthworks cut) – 1,200m^3

Noise and vibration

Within the usual operational study area for noise assessments (600m around the Proposed Scheme extents) there are two residential receptors (Laigh Glencroe and High Glen Croe) and a small number of non-residential receptors (Beinn an Lochain SSSI and footpaths).

Daily traffic on the A83 Trunk Road is understood to be around 4,500 vehicles per day, of which approximately 10% are Heavy Goods Vehicles (HGV). Current traffic levels on the OMR are negligible in terms of noise generation.

Road traffic noise is expected to be the dominant noise source for baseline conditions, with levels higher at Laigh Glencroe than High Glen Croe due to the proximity of the A83 Trunk Road.

Population and human health

The following sensitive receptors have been identified within the vicinity of the Proposed Scheme:

- Private Property and Housing – there are a small number of properties including, of particular importance, an agricultural business (farm) on the lower flanks of Glen Croe.

- Community Land and Assets – including the Rest and Be Thankful car park / viewpoint and bus stop / turning area.
- Walkers, Cyclists and Horse Riders (WCH) – there are no designated footpaths within the Proposed Scheme extents, though there is a core path (designated by the LLTNP Authority) in the woodland area approximately 350m to the west. There are also a number of walking routes in the wider area, including Beinn an Lochain, Ben Donich (via the Rest and Be Thankful), and Beinn Luibhean. There are no designated cycle routes in the immediate area of the Proposed Scheme, however, cyclists (and walkers) are known to use the OMR.

While the immediate locale of the Proposed Scheme is rural with a very low population, the route does play a vital role in linking wider communities which depend on the route for access to / from the services and facilities they need such as those related to education, commercial / jobs and health.

Road drainage and the water environment

The Croe Water is the main watercourse in the vicinity of the Proposed Scheme, with a catchment draining the surrounding steep mountainous area, including the slopes of Beinn Ime, Beinn Luibhean, Ben Arthur, Ben Donich and The Brack.

SEPA flood maps (SEPA Flood Maps) have classified river flooding as 'High' risk for the area adjacent to the Croe Water's main channel, with a more extensive high risk zone (10% or greater annual exceedance probability) and wider flood plain to the north-west of Ben Arthur, as well as at Ardgartan, where the river discharges into Loch Long at Ardgartan.

In relation to the Water Framework Directive (WFD), the Croe Water was classified by SEPA in 2020 as a surface waterbody with an overall status of 'Moderate', with ecology and water quality factors preventing attainment of 'Good' (target) status (Water Classification Hub).

The existing road is served by over-the-edge drainage and lacks any formal sustainable drainage system (SuDS) for the treatment of surface runoff from the carriageway, prior to discharge into the water environment.

Private water supplies are identified in Glen Croe, with potential for non-potable supplies in relation to agricultural activities.

There are no designated sites relating to the water environment in Glen Croe, including downstream.

Effects on Climate

The UK's total Greenhouse Gas (GHG) emissions for 2023 UK greenhouse gas emissions, provisional figures (last reported year) were 384.2 $MtCO_2e$, 5.4% lower than the 2022 UK Provisional Greenhouse Gas Emissions. The transport sector was the largest emitting sector of UK GHGs in 2022, emitting 29.1% of all emissions.

The Climate Change (Scotland) Act (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019) sets out targets of reducing greenhouse gas emissions by 100% before 2045.

Climate Vulnerability

The Proposed Scheme is situated within the Argyll River Basin. The climate in the Argyll River Basin is one of relatively mild winters and warm summers. The data from the Dunstaffnage met station shows that over the period 1930 to 2022 both the average daily summer maximum temperatures and average daily winter maximum temperatures have been increasing. The Transport Scotland Rest and Be Thankful climate station suggests similar trends to the Dunstaffnage met station over the available years of data (2018-2022), although actual temperatures are approximately 3°C cooler. Long term average daily rainfall for each month (1981-2010) in the Argyll River Basin is in line with the maximum for the UK.

In the study area, effects from extreme weather have been recorded. Winter et al., (2019) discusses the economic effects of landslides and floods on road networks using the A83 as a case study. It highlights the regular occurrence of landslide events associated with monthly average rainfall substantially in excess of the average in Scotland.

Accidents and Disasters

A review of manmade and natural features within the Study Area has been undertaken and identified the following internal and external influencing factors which may have high adverse consequences on the Proposed Scheme:

- ground instability from landslides;
- wildfire; and
- Croe Water flooding.

Policies and plans

This Record of Determination has been undertaken in accordance with all relevant regulations, guidance, policies and plans, notably including the Environment and Sustainability Discipline of the Design Manual for Roads and Bridges (Design Manual for Roads and Bridges (DMRB)) and Transport Scotland's Environmental Impact Assessment Guidance (Guidance - Environmental Impact Assessments for road projects (transport.gov.scot)).

Description of main environmental impacts and proposed mitigation

The following section provides an overview of the main anticipated environmental impacts based on the outcome of the previous options assessment work.

Air quality

Potential construction impacts include:

- adverse effects on sensitive receptors from dust generation and
- changes in traffic flows and speeds during construction from temporary traffic management measures and / or additional vehicles travelling to and from the construction site.

Any adverse air quality effects due to construction would be temporary and will be minimised by the application of appropriate mitigation measures such as damping down of surfaces prior to their being worked and storing dusty materials away from site boundaries and in appropriate containment (e.g. sheeting, sacks, barrels etc.).

During operation, the Proposed Scheme is acting as a temporary diversion route only and no material change in road alignment is anticipated. Therefore, given that existing air quality within the study area is good and that a relatively low traffic flow would be temporarily diverted from the A83, it is unlikely to lead to significant effects on local air quality.

Cultural heritage

Potential impacts during the construction and operation:

- direct impacts on known heritage assets during construction, including bridges along the OMR, remains associated with the Home Guard Stop Defence (Canmore ID 293674), and remains at Mid Glenn Croe (Canmore ID 150772, WoSAS ID 44649)
- construction causing direct impacts to the OMR, with widening altering character of the asset
- temporary impacts to the setting of heritage assets during construction (e.g. from noise or traffic movement) and
- permanent changes to the setting of heritage assets within the vicinity of the Proposed Scheme.

Mitigation measures will be adhered to in the design of the Proposed Scheme to minimise impacts to heritage assets and their setting as far as possible.

The mitigation strategy identified for the Proposed Scheme will be devised in consultation with the West of Scotland Archaeology Service (WoSAS) and, where appropriate, Historic Environment Scotland.

Landscape and Visual Effects

Potential impacts during construction include:

- temporary visual impact due to vehicles and plant in the vicinity of the works; and
- temporary impact on the local landscape character. However, these would all be minor given the works would be experienced in the context of previous recently completed alterations to the OMR and A83, and ongoing works relating to landslip events.

Potential impacts during operation include:

- changes to landscape character, views, visual amenities and / or Special Landscape Qualities (SLQ) as a result of additional new man-made elements
- changes to landscape character, views, visual amenities and / or SLQs as a result of additional new permanent engineering safety measures (rock debris fall fences and bunds) and
- changes to the landscape character, views, visual amenities and / or SLQs due to removal of landscape elements and/or features.

Mitigation measures will be adhered to and could include minimising loss of existing vegetation as far as practicable and the construction areas to be kept tidy and free of litter and debris.

Biodiversity

The potential impacts during construction and operation of the Proposed Scheme include:

- small, localised areas of permanent / temporary habitat loss
- potential indirect impacts such as pollution, habitat damage / degradation
- changes to local hydrology, hydro-morphology and flow pathways which could affect overall availability, distribution and quality of aquatic habitat
- deterioration in aquatic habitat quality from altered flow character and water quality (due to sediment and drainage run-off during construction)
- displacement and injury / mortality of protected or priority species and
- disturbance to protected or priority species, including disturbance caused by noise and vibration.

No significant effects are anticipated from these potential impacts due to the small and localised nature of the works, abundance of similar habitats in the wider area,

and large extent of lower value habitat in the Proposed Scheme (such as semi-improved grassland (grazing land)). Any impacts will be managed with embedded mitigation measures and through the requirements embedded in the Construction Environmental Management Plan (CEMP).

Additionally, no significant impacts are expected to Beinn an Lochain SSSI from the Proposed Scheme, with the SSSI being a greater altitude than the Proposed Scheme and no hydrological pathways connecting the two.

Geology and soils

Based on the geological conditions at the site and the lack of identified sources of contamination there is likely to be a low risk to groundwater from the construction of the Proposed Scheme. Based on the proposed works and the recorded groundwater levels in the area, there is likely to be a low risk of groundwater flooding from construction of the Proposed Scheme.

The National Vegetation Classification (NVC) survey undertaken for the Proposed Scheme has identified a number of areas as being GWDTEs, some of these are in close proximity to the localised works.

There is the potential for contaminated land to be present across the Proposed Scheme. However, the risk is considered to be low due to the nature of the Made Ground previously encountered at the Proposed Scheme and the nature of the development.

The number of measures to provide resilience would not be significant and are not particularly sensitive in terms of geology, soils and groundwater, and with the appropriate scale of mitigation, significant impacts could be avoided. Mitigation measures could include minimising both the land take required and cuttings into the hillside, hence reducing the potential impact on soils and the use of filter drains along the road extents.

Material assets and waste

During construction there would be a requirement for bulk construction materials which would lead to resource depletion particularly of virgin materials.

During construction, there are potential impacts in terms of waste. Given the proposed quantity of site arisings anticipated to be sent off-site for disposal, it is unlikely that that this will have an adverse effect on remaining landfill capacity in the region.

Provided the mitigation measures are followed during the course of the works, impacts during construction are not anticipated to be significant. Mitigation measures could include procuring aggregates from sources local to the Proposed Scheme, such as authorised quarries, and a Site Waste Management Plan (SWMP).

Noise and vibration

As the Proposed Scheme interventions would not change the traffic flows and will not alter how the A83 Trunk Road and OMR are used, operational noise impacts are not expected, therefore, no mitigation is proposed.

Impacts from construction will be adequately controlled by the adoption of best practicable means (BPM), as defined in Section 72 of the Control of Pollution Act. This includes the adoption of the advice contained within BS 5228 'Code of practice for noise and vibration control on construction and open sites', Part 1 Noise and Part 2 Vibration.

Significant effects are not expected to occur as a result of the Proposed Scheme. Construction noise impacts will be appropriately controlled through the adoption of best practice mitigation techniques, secured through the CEMP.

Population and human health

Potential impacts during from the Proposed Scheme include:

- impacts on local agricultural activities, including loss of land, loss or disruption to access (including to agricultural outbuildings), severance, loss of access to grazing areas or water supply
- potential disruptions to residential receptors within Glen Croe due to temporary noise and vibration impacts during construction
- potential disruption or changes to access of community land and assets during construction, including temporary restriction of pedestrian and cyclist access to the OMR
- impacts from construction activities on human health including but not limited to visual disturbance and impact on air quality and
- potential impact on local housing/rental market, health/welfare facilities and essential services from specialist operatives travelling from further afield.

Mitigation measures could include a CEMP, Traffic Management Plan (TMP) and Community Engagement Plan.

Road drainage and the water environment

There is the potential for impacts on water quality, during construction, because of potential spillage of fuels, oils and mobilisation of silt. The Proposed Scheme also includes several culverts and bridge alterations within Glen Croe which have the potential to affect flood risk and water quality of the Croe Water during the construction phase, including possible adverse effects on sensitive receptors downstream. Effects on water quality during operation are not anticipated; the Proposed Scheme incorporates SuDS by design for the treatment of surface runoff pollutants and would represent an overall betterment on the baseline scenario.

Runoff from the OMR would likely be discharged to the Croe Water or tributaries, with potential contaminants including sediment and dissolved metals.

The installation of upgraded culverts has the potential to alter flow pathways as well as sediment transport and supply patterns, individually and cumulatively, within the Croe Water catchment during the operational phase. This could influence deposition and scour processes in and adjacent to installed culverts for several small and high energy tributary channels.

The slopes between the A83 Trunk Road and OMR need to be regraded from a geotechnical perspective, particularly where mobile watercourse pathways have led to over-steepened slopes with a higher degree of stability risk. This work could have an adverse effect on water quality / fluvial geomorphology; however, embedded design measures alongside standard construction mitigation e.g. phased earthworks / soil stripping and sediment control, are considered sufficient to reduce this risk to below a significant effect.

The design of the culverts and bridge crossings would ensure that the flood risk to the Proposed Scheme / adjacent areas is not increased.

Private water supplies will be protected in terms of quality and yield, applying temporary or permanent measures, based on individual supply reviews and landowner agreement.

Initial discussions have been held with SEPA regarding appropriate levels of detail for applications under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR), as amended and to ensure a proportionate approach to the assessment and design of the Proposed Scheme, with CAR licencing applicable where channels have horizontal or vertical realignments.

Impacts during construction and operation are not anticipated to be significant or long-term; provided that standard construction mitigation is adopted and the Proposed Scheme design follows good practice including relevant CAR approval procedures.

Effects on Climate

The Proposed Scheme is expected to result in an increase in greenhouse gas emissions during construction through the use of machinery, vehicles and materials used (containing recycled and virgin materials) during construction. However, the magnitude of emissions in expected to be minimal.

The Proposed Scheme is not expected to result in an increase in greenhouse gas emissions during operation as there would be no significant change in traffic volumes at this location, with the OMR only operational when the A83 is closed.

Climate Vulnerability

There is potential for adverse impacts on construction activities during extreme weather. Provided industry standard measures and mitigation are implemented, the impacts are not anticipated to be significant.

During operation there is potential for adverse impacts on the Proposed Scheme's assets and end-users. These typically link to projected rising temperatures, heavier rainfall, and drier summers. A range of mitigation embedded into the design is required to avoid significant adverse impacts, for example including climate change allowances in the design of drainage infrastructure. Once mitigation is accounted for, significant adverse impacts during operation are not anticipated.

Vulnerability of the project to risks

A review of major event categories has been undertaken. It has been identified that during construction and operation the Proposed Scheme would potentially be vulnerable to major accidents and/or disasters associated with landslides, fluvial flooding and wildfires. However, with the implementation of the Proposed Scheme design and standard construction mitigation practices, it is considered that the vulnerability of the Proposed Scheme to major events should be managed to be as low as reasonably practicable (ALARP).

Assessment cumulative effects

In terms of cumulative effects with other development or projects, the following projects are within the vicinity of the Proposed Scheme

- works ongoing by Transport Scotland's operating company to provide resilience measures for the A83 Trunk Road and
- the A83 Trunk Road Rest and Be Thankful LTS which comprises the construction of a debris flow shelter and associated infrastructure on the existing A83 Trunk Road alignment. The EIA for the LTS is currently underway.

When the construction of the LTS is considered alongside the MTS, it has the potential to result in significant in-combination effects for some topics as a result of the scale of the infrastructure requirements when combined with the MTS interventions along the OMR.

Assessments of the environmental effects

Route options were developed and assessed as part of the Access to Argyll and Bute (A83) Medium Term Strategy Options Assessment Report. A combined EIA Screening / Scoping Report was produced for the Proposed Scheme which considered the potential for significant impacts to occur in the context of The Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017. The Environmental Screening / Scoping Report was issued to the A83 Environmental Steering Group (ESG) for their review and comment.

Consultation

The A83 ESG has been set up for the Proposed Scheme and the following have contributed to the various proposals discussed as part of this:

- Argyll and Bute Council
- Historic Environment Scotland
- LLTNP Authority
- NatureScot
- Scottish Forestry and
- SEPA.

A series of virtual and in-person public exhibitions and public engagement events have been held during the development of the Proposed Scheme. Consultation was as follows:

- public exhibitions were held between 12th and 15th June 2023 at Arrochar and Lochgilphead. The purpose of this exhibition was to give the opportunity to see and comment on the permanent LTS and
- public engagement events were held between 18th and 21st March 2024 at Campbelltown, Lochgilphead, Lochgoilhead and Arrochar. The purpose of these events was to provide an update on the design development for the LTS and on the progress towards delivering the MTS.

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

This is a relevant Proposed Scheme in terms of [section 55A(16)] of the Roads (Scotland) Act 1984 as it is a project for the improvement of a road, and the completed works (together with any area occupied by apparatus, equipment, machinery, materials, plant, spoil heaps, or other such facilities or stores required during the period of construction) exceed one hectare in area. The works are also situated in whole within the LLTNP, which is a sensitive area within the meaning of

regulation 2(1) of the Environmental Impact Assessment (Scotland) Regulations 1999.

The Proposed Scheme 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 Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017). Screening using Annex III criteria, reference to consultations undertaken and review of available information has identified the need for a statutory EIA.

As detailed in the Description of Main Environmental Impacts and Proposed Mitigation section, there is the potential for significant effects to occur for certain environmental receptors as a result of the Proposed Scheme.

The Proposed Scheme may have significant effects on the environment by virtue of factors such as the characteristics of the Proposed Scheme:

- debris catch fences
- HESCO and earthworks barriers
- widening of the existing single-track OMR to provide an increased length of two-way carriageway
- targeted widening at sharp bends to ease movement for larger vehicles
- works to bridge parapets and creation of a temporary bridge structure
- junction improvements and
- improved drainage and culverts.

Location of the Proposed Scheme:

- the Proposed Scheme lies wholly within the LLTNP.

Characteristics of the Potential Impacts

- the potential for significant impacts has been identified in relation to Population and Human Health and Landscape and Visual effects.

Given the nature and scale of the works to construct and operate the Proposed Scheme it has been determined that a statutory EIA is required.

References of supporting documentation

References and supporting information are included as hyperlinks throughout this report.

Annex A

The term “sensitive area” means any of the following:

- land notified under sections 3(1) or 5(1) (sites of special scientific interest) of the Nature Conservation (Scotland) Act 2004

- land in respect of which an order has been made under section 23 (nature conservation orders) of the Nature Conservation (Scotland) Act 2004
- a European site within the meaning of regulation 10 of the Conservation (Natural Habitats, &c.) Regulations 1994
- a property appearing in the World Heritage List kept under article 11(2) of the 1972 UNESCO Convention for the Protection of the World Cultural and Natural Heritage
- a scheduled monument within the meaning of the Ancient Monuments and Archaeological Areas Act 1979
- a National Scenic Area as designated by a direction made by the Scottish Ministers under section 263A of the Town and Country Planning (Scotland) Act 1997
- an area designated as a National Park by a designation order made by the Scottish Ministers under section 6(1) of the National Parks (Scotland) Act 2000.

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