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# A83 Rest and Be Thankful

LTS EIAR VOLUME 4, APPENDIX 15.3 - POPULATION AND  
HUMAN HEALTH BASELINE

Transport Scotland

A83AAB-AWJ-EAC-LTS\_GEN-RP-LE-000282

## A15-3. Population and Human Health Baseline

### A15-3.1. Overview of study area population and land use characteristics

- A15-3.1.1. The low population density of Argyll & Bute is reflected in the Proposed Scheme location within the Cowal North (04) data zone. Lomond North ward, within the Argyll and Bute Council area. This area of Cowal North (04) has a population of 842 (based on 2019 census estimates), largely in accessible rural settlements such as Arrochar and Succoth. However, the area of Glen Croe itself (within which the Proposed Scheme is located) has very small numbers of isolated residential properties scattered along the A83 Trunk Road, with only two being located within 500m of the Proposed Scheme. The closest communities are the villages of Succoth and Arrochar (approximately 7.6km and 11km distant respectively) to the southeast, Lochgoilhead to the southwest (10km) and Cairndow to the northwest (10km), all within a 15 minute drive of the Rest and be Thankful Car Park / Viewpoint. Helensburgh is the closest town (approximately 40.8km) classified as urban, while Glasgow is the closest city (approximately 87km).
- A15-3.1.2. The main land uses in the immediate vicinity of the Proposed Scheme are improved / semi-improved grazing for livestock (in the valley floor), and coniferous forestry plantation, though there are small pockets of native woodland planting. There are also large areas of rough grazing / moorland located in the adjacent upland areas.
- A15-3.1.3. Within the Glen Croe area, particularly, though not exclusively, in the forested areas are a number of walking and cycling trails. These include those associated with the Argyll Forest Park and provide access to the higher peaks (the 'Arrochar Alps') in the area, including of particular note 'The Cobbler' which is one of the most popular hills in Scotland for walking and is noted as being suitable for rock climbing / bouldering. The Cobbler (or Ben Arthur) is most commonly climbed from its eastern side, beginning at Arrochar forest, however, more experienced hillwalkers enjoy the challenge of the climb from Honeymoon Bridge, along an improved walking route which is accessed via a car park and

picnic spot immediately adjacent to the A83 Trunk Road (approximately 2.8km from the Proposed Scheme).

- A15-3.1.4. On the other side of Glen Croe is Ardgartan Forest which is a forest of Sitka and Norway spruce that is a popular area for walking, cycling and horse riding, having way marked trails that offer opportunities for wildlife viewing. Opportunities also exist for 'off-route' hiking in this area.
- A15-3.1.5. While the immediate locale of the Proposed Scheme is rural with a very low population, the A83 Trunk Road does play a vital role in linking wider communities to the health, social, educational, recreational and economic facilities and opportunities that they require. In addition to providing a link to health centres, schools, colleges, and leisure facilities, it allows families and friends to meet and allows access to wider markets for employment or business opportunities. In short, the A83 Trunk Road has clear importance for health and wellbeing outcomes for individuals and the wider community.
- A15-3.1.6. Communities in Cowal, Dunoon, Kintyre and across Mid Argyll rely on the A83 as their main road access to Glasgow and Central Scotland without needing to rely on ferries or take detours with potentially significant cost or time implications – such detours could add up to 75 minutes to journey time and a corresponding increase in fuel use. See Chapter 2: Need for the Proposed Scheme for further discussion on the importance of the A83.

## A15-3.1. Population and Health Profile

- A15-3.1.1. The Proposed Scheme is located in an area rural in nature, with no population centres located within it or within its immediate vicinity. As such, to understand the population of the area it is important to look further afield at the local authority level. [Scottish Government statistics](#) shows the population of Argyll and Bute to be approximately 85,430 (2020), though this population has been generally decreasing (and is anticipated to continue to decrease), with a decline since 2001 of approximately 5.6% (against an increasing Scottish population of approximately 8.2% over the same period). These changes in demographics (along with a generally ageing population and attractiveness of

Argyll and Bute for retirement) are also leading to a percentage increase in the older population.

- A15-3.1.2. In order to help establish the baseline health profiles within the study area, [Design Manual for Roads and Bridges LA 112: Population and Human Health \(DMRB LA112\)](#) identifies a range of data to be considered. These are set out for the study and wider areas as follows (note that health related data is reported at different geographic / administration levels, depending upon the issue / health outcome being reported). Note that a large amount of data on health and wellbeing in Scotland can be found on the Public Health Scotland website – see [ScotPHO profiles \(shinyapps.io\)](#):

#### Percentage of community with increased susceptibility to health issues (vulnerable members e.g., <16 & >65):

- Argyll and Bute (11.7%) has a larger population aged 75+ compared to Scotland as a whole (8.6%), with Bute and Cowal having the highest proportion within Argyll & Bute. It is anticipated the average age will continue to increase
- NHS Highland has higher levels of people 65+ with high levels of care needs who are cared for at home but fewer adults claiming incapacity benefit/severe disability allowance compared to the rest of Scotland and
- decreasing population of people aged under 16.

#### Age Profile

- A15-3.1.3. The following (Table A15-3.1 sets out the profile of the older and younger population cohorts of the wider study area:

**Table A15-3.1 Population cohorts (youngest and oldest)**

Population cohort	Cowal North (03)	Cowal North (04)	Argyll and Bute	Scotland
Youngest cohort < 16	9.8%	15.8%	14.4%	16.6%
Oldest cohort > 65	34.4%	18.8%	26.4%	19.6%

**Percentage of community with pre-existing health issues e.g. respiratory disease/chronic obstructive pulmonary disease (COPD):**

- 150.19 per 100,000 (age-sex standardised rate) Chronic obstructive pulmonary disease (COPD) hospitalisations in Argyll & Bute (19/20 to 21/22 financial years, 3-year aggregates) (vs 207.4 per 100,000 for Scotland as a whole). This is approximately at the 75<sup>th</sup> percentile of the data range and considered statistically significantly better and
- asthma patient hospitalisations 59.09 per 100,000 (age-sex standardised rate) in Argyll & Bute (19/20-21/22 financial years, 3-year aggregate) (vs 68.4 per 100,000 for Scotland as a whole), though while better this is not considered statistically significantly so.

**Deaths from respiratory diseases:**

- Mortality rate from COPD in Scotland is 1.6% for males and 2.5% for females.

**Percentage of community with long term illness or disability:**

- Around 1 in 3 adults (approximately 33.3%) in Argyll & Bute have a limiting long-term condition.

**General Health:**

- In Argyll and Bute, the leading cause of death for males in 2021 was Ischaemic heart diseases (13.3% of all male deaths), followed by Dementia

and Alzheimer's (7.2%). In Scotland overall, the leading cause of death for males was also Ischaemic heart diseases (13.7%), followed by Dementia and Alzheimer's (6.2%).

- In Argyll and Bute, the leading cause of death for females in 2021 was Dementia and Alzheimer's (14.0% of all female deaths), followed by Ischaemic heart diseases (8.1%). In Scotland overall, the leading cause of death for females was also Dementia and Alzheimer's (12.8%), followed by Ischaemic heart diseases (8.5%).
- Note that Cancers are grouped separately according to the type of cancer, for example, lung, breast and prostate cancer are all counted as separate causes. If all cancers were grouped together, cancer would be the leading cause of death.
- 52.04% of people aged 65+ with high levels of care needs in Argyll & Bute are cared for at home (20/21 financial year).
- High prevalence of unhealthy behaviours (>20% drink hazardous/harmful levels of alcohol, STDs increasing, 1 in 3 not physically active enough, 20% smoking, etc.) in Argyll & Bute, smoking prevalence in NHS Highland similar to those in all of Scotland but higher rates of smoking during pregnancies in NHS Highland.
- NHS Highland ranks worse than Scotland as a whole for deaths from suicide (19.8 vs 14.1 per 100,000 2017-2021, 5-year aggregate), although Argyll & Bute is 15.52 per 100,000.

### Life expectancy

- For males in Argyll and Bute there is a life expectancy of 77.7 years, while for females this is 81.64 years (2020 to 2023 three year aggregate). This is statistically significantly better than Scotland as a whole, which has a male life expectancy of 76.54 years and 80.72 years for females over the same period.

## A15-3.2. Health related behaviours

A15-3.2.1. The following baseline data outlines wider determinants of health as noted in IEMA Guidance on Scoping of Human Health in Environmental Impact Assessment.

### Physical Activity / Walkers, cyclists and horse-riders

A15-3.2.2. The existing active travel provision within the study area is as set out in Table 15-3.2 and reflected in Volume 4, Figure 15.1 Population and Human Health Receptors. It is to be noted that, while grouping Walkers, Cyclists and horse-riders (WCH) routes under respective Route ID headings allows for pragmatic display of the relevant routes, some of the grouped routes (WCH Sub-routes) identified in Table 15-3.2 are of different geometry (length and segments). Adopting a precautionary approach, the sub-route with the furthest reach is displayed (under the Route ID heading) and the highest sensitivity across the sub routes adopted for that group.

**Table 15-3.2 Relevant Walking, Cycling and Horse-Riding Routes within the study area**

Route ID	WCH Sub-route Name	Designation	Sensitivity
Old Military Road (OMR)	Loch Lomond and The Trossachs NP Core Path Corridor (Other Path – 126 and 226)	Loch Lomond and The Trossachs NP Core Path Corridor	Medium
Route 1	Core Path – 2140 Loch Lomond and The Trossachs NP Core Path Corridor (Core Path – 252)	Core Path Loch Lomond and The Trossachs NP Core Path Corridor	Medium

Route ID	WCH Sub-route Name	Designation	Sensitivity
Route 2	Core Path - 2141 Loch Lomond and The Trossachs NP Core Path Corridor (Core Path – 276)	Core Path Loch Lomond and The Trossachs NP Core Path Corridor	Medium
Route 3	Core Path – 2139 Loch Lomond and The Trossachs NP Core Path Corridor (Core Path – 45)	Core Path Loch Lomond and The Trossachs NP Core Path Corridor	Medium
Route 4	Loch Lomond and The Trossachs NP Core Path Corridor (Other Path – 248)	Loch Lomond and The Trossachs NP Core Path Corridor	Medium
Route 5	Core Path – 2461 Loch Lomond and The Trossachs NP Core Path Corridor (Core Path – 58)	Core Path Loch Lomond and The Trossachs NP Core Path Corridor	Medium
Route 6	Loch Lomond and The Trossachs NP Core Path Corridor (Other Path – 269)	Loch Lomond and The Trossachs NP Core Path Corridor	Medium
Route 7	Core Path 2138 Loch Lomond and The Trossachs NP Core Path Corridor (Core Path – 82) Hillwalking Route 6 Right of Way SA/SA29/1	Core Path Loch Lomond and The Trossachs NP Core Path Corridor Hillwalking Route Right of Way	Medium
Route 8	Core Path – 2137	Core Path	Medium



Route ID	WCH Sub-route Name	Designation	Sensitivity
Route 9	Core Paths – 2132	Core Path	Medium
Route 10	Core Paths - 2126 Loch Lomond and Cowal Way - 22	Core Path Scotland's Great Trails	Very High
Route 11	Hillwalking Route 4	Hillwalking Route	Medium
Route 12	Cat Craig Loop	Forestry Recreation Route	Medium
Route 13	Hillwalking Route 5	Hillwalking Route	Medium
Route 14	Forest Recreation Route 356 Scottish Hill Track (5) 099	Forest Recreation Route Scottish Hill Tracks	Medium

A15-3.2.3. These existing facilities are predominantly used for recreation and leisure purposes rather than commuting or active travel and it is anticipated that use by vulnerable groups is minimal owing to gradient and ground conditions. This assumption is based on their location, i.e. proximity to trip generators etc, and type, i.e. gradient, alignment and amenity. The WCHAR reports provides some indication of usage and noted very limited numbers of pedestrians and cyclists and no horse-riders during a visit to the site. This observation was reflected in user count surveys at a small number of locations, commissioned for the Proposed Scheme, which suggests infrequent use by pedestrians and cyclists, reflective of the rural and remote nature of the location.

### A15-3.3. Social Environment

#### Housing / Private Property and Housing

A15-3.3.1. There are two private residences in proximity to the Proposed Scheme, both located within the 500m study area.

### Open space, leisure and play / Community land and assets

- A15-3.3.2. While outside the immediate study area of the Proposed Scheme, it is important to recognise that there are many community assets in the wider area, the use of which or access to / from is dependent on the A83 Trunk Road. As such, it is important that the assessment notes these.
- A15-3.3.3. A large part of the wider area is located within Argyll Forest Park, with particular areas of open space such as Ardgartan Forest, as well as access to the higher peaks in the area from places such as Honeymoon Bridge and the Rest and Be Thankful car park. Access to some of these areas would be via the A83.
- A15-3.3.4. Religious facilities in the area include SS Peter & Paul RC Church and Arrochar Parish Church, which would require access via the A83 for some members of the community.
- A15-3.3.5. An important community asset is a Fire Station and Mountain Rescue Centre, located at Arrochar.
- A15-3.3.6. Distance from the Rest and Be Thankful viewpoint to Arrochar is approximately 11km, with a journey time by car of approximately 12 minutes.
- A15-3.3.7. Closer to the Proposed Scheme are Ardgartan Hotel and Holiday Park (approximately 4.7km) and Creaghmore Bed & Breakfast (approximately 5.1km).
- A15-3.3.8. Polling district Glen Croe includes the entire Proposed Scheme area and has its polling station at the Three Villages Hall in Arrochar which would necessitate access via the A83 for some residents. However, most of the polling district's population is situated near Loch Long so the number affected in the event of a road closure is anticipated to be minimal. No other polling district relies on the A83 to get to their polling station. It is noted that village halls are also located at Cairndow and Lochgoilhead.

### Transport modes, access and connections

- A15-3.3.9. In relation to safety on the existing road network, National Health Service (NHS) Highland ranks worse than NHS Scotland as a whole for road traffic accident casualties, with 63.54 casualties per 100,000 accidents recorded in Argyll and Bute (2018-2020 3-year aggregate). This may be reflective of the long distances of travel, poorer weather conditions and potential for poorer road conditions in rural areas. For specific data on road safety within the study area, see the Walking, Cycling and Horse-Riding Assessment and Review (WCHAR). This notes that during the relevant review period (2017-2021) there were 47 reported collisions (1 fatal, 18 serious, 28 slight) occurred within the study area resulting in 70 casualties (1 fatal, 24 serious, 45 slight). This resulted in a killed or seriously injured (KSI) ratio of 35.7%.
- A15-3.3.10. In terms of public transport, the nearest rail station to the study area is located at Tarbet and would be accessed (12.5km, approximately 13 minutes) via the A83 for some users. Public buses utilise the A83 to serve communities in the wider area. For further specific information, see the WCHAR.

## A15-3.4. Economic Environment

### Education and Training

- A15-3.4.1. The [Argyll and Bute Schools Map \(arcgis.com\)](https://arcgis.com) shows the primary school catchment for Arrochar Primary school (non-denominational). Also located in the wider area are St Josephs (denominational) and the Secondary school catchment for Hermitage Academy (non-denominational) / Our Lady and St Patrick's (denominational), resulting in the potential need for access to these schools along the A83.

### Employment and income / Development land and business

- A15-3.4.2. While there is housing located at Succoth, the area of Arrochar has the most economic activity with a small number of businesses including various hotel and guest house / B&B accommodation, shops, takeaway restaurants, health and beauty parlour, caravan park, petrol station and associated restaurant. Although these receptors are outside the immediate study area, the A83 is of

considerable importance in terms of access and as such, it is important that consideration is made of this aspect.

A15-3.4.3. Income deprivation of the area is summarised below (data taken from Public Health Scotland [ScotPHO profiles \(shinyapps.io\)](https://shinyapps.io) and Argyll and Bute Council [Scottish Index of Multiple Deprivation 2020: Argyll and Bute | Argyll and Bute Council \(argyll-bute.gov.uk\)](https://argyll-bute.gov.uk)):

- Argyll and Bute has slightly lower percentage of unemployment compared to Scotland as a whole and a higher rate of self-employment compared to Scotland as a whole. Argyll and Bute also has over double the percentage of retired people compared to Scotland as a whole (34.2% vs 15.2%). The percentage of workless households in Argyll & Bute is considerably lower than Scotland as a whole (13.5% vs 18.6%).
- The hourly and weekly pay in Argyll & Bute is lower than in Scotland as a whole.
- 39.53% of people in Argyll and Bute live in 15% most 'access deprived' areas.
- 1 in 10 of the population are estimated to be income deprived (9.7%), lower than for Scotland as a whole (12.1%), although Bute (17%), Cowal (13.2%) and Kintyre (13.2%) are estimated to have a higher income deprived population than Scotland as a whole.
- There is fragility in the economy in Argyll and Bute due to reliance on part-time and seasonal employment.
- Small areas within the most deprived 20% in Scotland can be found in parts of Campbeltown, Helensburgh, Hunter's Quay, Dunoon, Rothesay and Oban. Bute, along with Helensburgh, have small areas within the 20% least deprived in Scotland. Deprivation within rural areas is likely to be hidden by the mixed socioeconomic status of small rural areas; 76% of those identified within Argyll and Bute as being income deprived do not live in one of the most deprived 20% of areas in Scotland. 17% of those aged under 16 (2,215 children) are estimated to be living in relative poverty (2019/20) in Argyll and Bute. Child poverty has long-term implications and the proportion living in

relative poverty has increased since 2013/14 in Argyll and Bute alongside the rest of the UK.

- Minimum income standards (the income needed to afford 'essential' items) is high in remote, rural and island areas. A factor in this is higher fuel costs; Argyll and Bute has high rates of fuel poverty in comparison to Scotland.
- NHS Highland is worse for people living in 15% most 'access deprived' areas compared to Scotland as a whole.
- NHS Highland ranks better than Scotland as a whole for employment deprived adult population, income deprived population, out-of-work benefit claims and children in low income families.
- 12.58% of children in Argyll and Bute are in low income families (2016).
- 7.85% of working age population are employment deprived in Argyll and Bute (2017).

A15-3.4.4. In terms of income deprivation, Cowal North (03) is considered as rating 6 out of 10 (where 1 is within 10% most deprived area and 10 is within 10% least deprived areas), while Cowal North (04) is rated as 8 out of 10. Note that 14 data zones in Argyll and Bute fall into the 20% most income deprived data zones in Scotland.

## A15-3.5. Bio-physical Environment

### Air Quality

A15-3.5.1. See Volume 2, Chapter 7: Air Quality for details of baseline information relevant to air quality.

### Land Quality

A15-3.5.2. See Volume 2, Chapter 9: Landscape and Chapter 12: Geology, Soils and Groundwater for details of baseline information relevant to land quality.

### Noise and Vibration

A15-3.5.3. See Volume 2, Chapter 14: Noise and Vibration for details of baseline information relevant to noise and vibration.

## A15-3.6. Institutional and built environment

### Health and social care services

A15-3.6.1. While there are no healthcare facilities within the immediate study area (i.e. within 500m of the Proposed Scheme), within the wider area General Practitioner practices are located as follows (distances and travel times are approximate from Rest and Be Thankful Car Park / Viewpoint):

- Arrochar Surgery – 12km via A83 and A814 (approximately 14 minutes by car)
- Lochgoilhead Medical Centre – accessed via A83 and B828 approximately 10km (approximately 14 minutes by car)
- Strachure Medical Centre – accessed via A83 approximately 23km (approximately 20 minutes by car)

A15-3.6.2. More advanced / higher capacity medical facilities are available further afield as follows:

- Victoria Infirmary – accessed via A83 and A82, 26 miles (approximately 40 minutes by car)
- Vale of Leven District Hospital (Minor Injuries only) – accessed via A83 and A82, 26.5 miles (approximately 38 minutes by car)
- Cowal Community Hospital (A&E) 31.3 miles (approximately 43 minutes by car)
- Inverclyde Royal Hospital (A&E) – 50 miles (approximately 1 hour 14 minutes by car) or 37 miles via A815 with Ferry (approximately 1 hour 36 minutes)
- Lorn & Islands Hospital (A&E) Oban – 53.4 miles via A83 and A85 (approximately 1 hour 17 minutes by car).

### Wider societal infrastructure and resources / Agricultural Land Holdings

A15-3.6.3. The local area consists of fields of improved and semi-improved pasture, small areas of forestry plantation and areas set aside for potential future plantation

(owned / managed by Forestry and Land Scotland), as well as areas of rough grazing. There is ongoing felling and forest management activities in the area of the Proposed Scheme and fencing and replanting has taken place on land above the A83. Forestry and Land Scotland are also in ownership of part of the Old Military Road. Note that in addition to forest services, Table 15-3.3 sets out the four main landowners located within the Proposed Scheme Boundary:

**Table 15-3.3 Agricultural Land Holdings**

Reference	Description	Sensitivity
Upland Estate No.1	The estate are a large sporting estate of mainly moorland with some in-bye ground, it extends to cover an area of c. 1,315ha. It is understood that at present, the area towards the A83 does not have any agricultural interest, consisting of moorland (notwithstanding that there will be the occasional stray sheep in the area). It is understood that the land is utilised on a casual basis to a sporting tenant though being close to a main public road there are no deer culling activities being carried out.	Low
Upland Estate No.2	The estate own Loch Restil at the northern end of Glen Croe and further land adjacent to Glen Kinglas which is not affected by the Proposed Scheme. It covers an area of c.3,016ha. It is understood that at present Loch Restil, its banks, and the adjacent land towards the A83 does not have any agricultural interest, consisting of moorland and scrubland but contain rights for trout fishing.	Low

Reference	Description	Sensitivity
Farm Holding No.1	<p>There is one agricultural business (farm) located within Glen Croe. The existing farming unit covers an area of approximately 89ha. There is an additional small area for land to the north that is not farmed, being rough moorland. The majority of the farm is used for grazing and it can be considered a hill livestock farm. All of the land under the management of the farm is noted as being within the Land Capability for Agriculture of Rough Grazing 6.2- 6.3 (see <a href="#">Land Capability for Agriculture (LCA) – James Hutton Institute</a>) indicating the lowest grade of usable agricultural land.</p> <p>In addition to the residential building, there are a number of other buildings associated with the farm, including a steel portal farm shed, field shelters, barn and a drystone high walled fank with disused dipper which is used for cattle handling with the portable cattle hurdles and crush. There are also a series of fences and tracks associated with the farm.</p> <p>The farm currently own and utilise the OMR between chainages 1200 to 3830 and have an existing agreement with Transport Scotland relating to it's use at times when the A83 is closed due to landslides.</p>	Medium



Reference	Description	Sensitivity
Forestry Holding No.1	<p>Forestry and Land Scotland (FLS) manage the national forests on behalf of the Scottish Ministers. <a href="#">The Glen Croe Land Management Plan 2019 – 2028</a> notes that the Glen Croe Land Management Plan (LMP) covers c. 3,082ha of which 55% is open hill ground. Approximately 62% of the forested area is Sitka Spruce, most of which is managed on a clearfell basis. The wider National Forest Estate cover a much more extensive area.</p> <p>FLS currently own and utilise the OMR between Chainage 320 and 1200 and have an existing agreement with Transport Scotland relating to its use at times when the A83 is closed due to landslides. In addition, FLS also own and operate the Rest and Be Thankful car park and viewpoint at the head of Glen Croe.</p>	Low

A15-3.6.4. Information gathering to develop the understanding of the land use of the Proposed Scheme and the wider area has been informed by dialogue with relevant landowners, including the use of a Land Interest Questionnaire (LIQ) – refer to Volume 4, Appendix 15.5 Land Interest Questionnaire. Whilst the impact on agricultural businesses in the vicinity of the Proposed Scheme will be considered in the assessment, full baseline details are not provided for confidentiality reasons.

### A15-3.7. Identification of sub-groups

A15-3.7.1. From a review of the population and human health baseline of the local area, it has been possible to identify a number of sub-populations within the population and communities of the local area, who, along with the population as a whole (wider groups) could be considered vulnerable in terms of their health and wellbeing. These groups and the rationale for their identification is outlined in Table A15-3.4.

**Table A15-3.4 Identification of sub groups**

Groups	Relevant receptor / medium	Explanation	Are these groups identified in the study area?
Wider Groups – adults / working people	Residents living in houses, operators and users of community land and facilities, business owners and users, users of open space, recreation and leisure activities, Walkers, Cyclists and Horse-riders (WCH), public transport users and vehicle travellers.	<p>The key challenge to the physical health, mental and social wellbeing of the local resident population arises from inactivity and unhealthy lifestyle choices. Health outcomes are also linked to the local transportation and road network through its impact on access to health facilities, potential for providing active travel opportunities and issues such as air quality and noise.</p> <p>Residents of properties in the wider study area, employees and customers at the businesses interspersed throughout the area, walkers and cyclists using recreation routes and the local footpath and cycleway network, visitors to nearby visitor attractions, and public transport users are likely to be most exposed to health impacts and outcomes from exposure to the A83 both during construction and operation.</p>	Yes – while there are a very small number (two) of residential properties within 500m of the Proposed Scheme, there are residents within the wider area, particularly at Succoth and Arrochar, but also within scattered residential properties. There are also a number of businesses in the wider area, particularly at Arrochar. These businesses provide services for both locals and visitors to the area and access would be via the A83 for many.
Sensitive Group - Families with children and adolescents, (pregnant women, babies, children and adolescents)	Residential houses, community services and facilities, open space, greenspace and recreational facilities, local footpaths and cycleways, Schools nurseries, day care centres, residential houses	<p>Children and adolescents constitute a sensitive population group due partly to their need to be able to move around freely to and from school, open space, greenspace and recreational activities, whilst they lack the experience and judgement displayed by adults when moving around in traffic and public spaces and when using public transport and related infrastructure.</p> <p>Hence, children and adolescents as pedestrians and cyclists are at elevated risk from danger distributed by motorised transport.</p> <p>According to Transport Scotland <a href="#">Key issues and evidence summary   Transport Scotland</a> and multiple other sources on health impacts on vulnerable groups from transport schemes, children are more sensitive than adults to air pollution, noise, odour and other environmental factors and their bodies and minds are less able to deal with them.</p> <p>Particularly susceptible children are those from low-income and/or black and minority ethnic (BME) backgrounds and/or living in deprived areas.</p>	Yes - while there are a very small number (two) of residential properties within 500m of the Proposed Scheme, and the wider population of Argyll and Bute is increasingly in the older age cohort, there are residents within the wider area particularly at Succoth and Arrochar, but also within scattered residential properties and it is expected that there will be families with small children, pregnant women, babies, children and adolescents. There are a number of schools in the wider area including at primary and secondary level with catchment areas resulting in the potential need for access along the A83.

Groups	Relevant receptor / medium	Explanation	Are these groups identified in the study area?
<p>Sensitive Group – People who are physically or mentally disadvantaged (elderly people, people with physical disabilities, people with other health problems or impairments)</p>	<p>Residential houses, retirement / Care homes, community services and facilities (including health centres / clinics and hospitals), open space, trails and local footpaths.</p>	<p>Elderly people constitute a sensitive group as they are more sensitive than young and middle-aged adults. Generally, the older people are, the slower their movement and reactions and the poorer their hearing. They can be more at risk from injury and may fear falls, steps or lack of suitable footpaths, lack of safe crossing points and short crossing times at safe crossing points and other aspects of the surrounding built environment (see for example Asher. L, Aresu. M, Falaschetti. E, Minell. J (2012) Most older pedestrians are unable to cross the road in time). This can deter them from outdoor activity, especially walking, whereas walking is critical for muscle strength and reduces the risk of falls amongst other benefits. Elderly people can also feel more sensitive when using public transport (see for example <a href="https://www.tfl.gov.uk">Older Pedestrians and Road Safety (tfl.gov.uk)</a>). They also often need to seek health services. Their continuing independence at home is often dependent on having available a range of transport mode and route options.</p> <p>People who are disabled and/or with physical and/or mental illnesses or impairments constitute a sensitive group as they may not be able to access many forms of transport or need special arrangements and/or support to access these. They are more likely to find it difficult to walk or travel independently and can also be disadvantaged by the cost of transport. Any changes in access, such as greater travel distances, diversions or replacement services during construction would have particular impacts on this group.</p> <p>Chronically ill persons, for example, people with impaired lung function, can be more adversely affected by air pollution. The same is true of hypersensitive individuals such as asthmatics.</p> <p>Noise can cause hypertension and cardio-vascular problems. Those who already have these conditions can be more troubled by noise than others.</p> <p>People with existing physical and mental illnesses, including sleep disturbance, anxiety and depression, are likely to be more sensitive to changes to their local environment.</p>	<p>Yes – while the general population in Argyll and Bute performs better in many health outcomes than Scotland as a whole, it has nevertheless been shown that there are areas within Argyll and Bute which have a prevalence of unhealthy behaviours (&gt;20% drink hazardous/harmful levels of alcohol, STDs increasing, 1 in 3 not physically active enough, 20% smoking, etc.) and higher rates of smoking during pregnancies.</p> <p>It is noted that 1 in 3 adults in Argyll and Bute have a limiting long-term condition.</p> <p>It is also the case that the Argyll and Bute area has an increasingly older population profile and 1 in 4 of Argyll and Bute’s population are of pensionable age (joint highest of all Scottish Local Authorities) along with an increase in 75-84 and 85+ year olds.</p> <p>NHS Highland has higher levels of people 65+ with high levels of care needs who are cared for at home but fewer adults claiming incapacity benefit/severe disability allowance compared to the rest of Scotland.</p>

Groups	Relevant receptor / medium	Explanation	Are these groups identified in the study area?
<p>Sensitive Group - People who are materially disadvantaged</p>	<p>Residential houses, community services and facilities, local businesses, open space, greenspace and recreational facilities, PRow, local footpaths and cycleways, public transport, bus stops</p>	<p>People on low incomes (living in deprived areas is a proxy measure for low income) and people without access to a car constitute a sensitive group as they are likely to walk further because they cannot afford public transport or to own a car, and their lack of transport options may limit life and work opportunities. Those on low incomes may be less able to adapt to changes in access, such as greater travel distance or alternative transport provision.</p> <p>People living in deprived areas are generally more likely to already have reduced access to health and social care as well as reduced access to other services and amenities.</p> <p>This group may have increased stress levels due to the factors above. In addition, this group is more sensitive to food insecurity, which has an access dimension.</p>	<p>Yes – it has been shown that areas within Argyll and Bute are among the most deprived 20% in Scotland. Deprivation within rural areas is also likely to be hidden by the mixed socioeconomic status of small rural areas. It is also the case that the population of Argyll and Bute is relatively older in general and as such will be living with fixed and potentially restricted (pension) incomes.</p> <p>The economy of the local area is also recognised as being more fragile than Scotland’s as a whole, with a large seasonality aspect to it.</p> <p>17% of those aged under 16 (2,215 children) are estimated to be living in relative poverty (2019/20) in Argyll and Bute. Child poverty has long-term implications and the proportion living in relative poverty has increased since 2013/14 in Argyll and Bute alongside the rest of the UK.</p>