Appendix 1 - Glossary and Abbreviations

This appendix provides a glossary of the main terms and an explanation of the key abbreviations used in this Environmental Statement.

Environmental Assessment Process	
Baseline	The current environmental conditions against which potential impacts/effects are identified.
Baseline Study/Survey	The process of research and fieldwork by which the current baseline conditions are established.
Construction	Any activities, which take place during the construction phase, including temporary land take.
Effect	The result of an impact on a particular resource or receptor.
Environmental Impact Assessment (EIA)	A process for identifying and evaluating the likely effect of a proposed development on the environment. EIA normally forms part of the consent procedure.
Environmental Statement	A document or series of documents which reports the findings of the EIA
Impact	A physical or measurable change to the environment attributable to the Scheme.
Infrastructure	The facilities, services and businesses in a defined area.
Magnitude of effect	The actual change taking place to the environment, for example, the extent of land take or predicted change in noise levels.
Operation	Any activities forming part of or associated with the operation of the Scheme.
Permanent Land take	The permanent occupation of land by Scheme infrastructure, including physical features such as buildings.
Receptor	A component of the natural, created or built environment such as a human being, water, air, a building or a plant that is affected by an impact
Resources	Physical or qualitative features of the environment which are capable of identification and evaluation, and which are often the subject of some form of protective planning designation.
Scope	The extent of coverage of EIA.
Significance of impact	The product of an impact's magnitude and the sensitivity, importance or value of the relevant receptor or resource
Sources of Effect	The Scheme activities or components, which give rise to environmental effects, as defined below.

Types of Effect	
Cumulative Effect	An effect resulting from the accumulation of a number of effects. A cumulative effect may result from: The combination of different effects at a particular location; The recurrence of effects of the same type at different locations; The interaction of different effects over time or The interaction between the Scheme and other projects.
Direct Effect	An effect arising from an impact attributable to a project component or activity.
Environmental Effect	Identification of the possible range and location of potential impact, the words impact and effect have been used interchangeably
Indirect Effect	An effect arising from additional development works which are as a result of the Scheme.
Non-significant	An effect, which is unlikely to have an influence on the

Effect	decision-making process.
Permanent Effect	An effect, which is irreversible or likely to persist for the foreseeable life of the Scheme.
Residual Effect	An effect, which is likely to remain after the application of mitigation measures.
Secondary Effect	An effect, which may arise as a consequence of a primary effect, particularly between different environmental topics (e.g. reduced amenity of a community facility due to noise and disturbance).
Significant Effect	An effect, which, in isolation or in combination with other effects, is likely – in the opinion of the EA team – to have an influence on the decision-making process.
Temporary Effect	An effect which is of limited duration, due to either the cessation of the impact giving rise to it or the ability of the environment to accommodate or recover from it.
Unavoidable Effect	An effect which is an inevitable consequence of the Scheme and which cannot be removed or rendered insignificant by mitigation.
Mitigation	Measures adopted to reduce, ameliorate or avoid significant effects.

Engineering Terms	
At Grade	Location where all parts of the scheme are at the same elevation
Construction Compound	A defined area (usually fenced off) where construction activity takes place
Junction	Two or more roads converging from different directions
Permanent Land take	A requirement for land that will be needed as part of the operation phase of the Scheme
Temporary Land take	A requirement for land that will be needed during the construction phase of the Scheme only, and can be returned to other use afterwards

The following is an explanation of some of the abbreviations used in this Environmental Statement:

- **Air Quality Management Area (AQMA)** - A designation made by a local authority where an assessment of local air quality results in the need to devise an action plan to improve the quality of air.
- **µg/m^3** - Micrograms per cubic metre
- **µm** - Micrometres
- **AUN** - Automatic Monitoring Network
- **CO** - Carbon monoxide
- **CO_2** - Carbon dioxide
- **CRTN** - Calculation of Road Traffic Noise
- **DMRB** - Design Manual for Roads and Bridges, Volume 11 Design Manual for Roads and Bridges includes a formal assessment methodology for the assessment of impacts on local and regional air quality that is based on the use of the DMRB screening tool.
- **Dust** - Particulate matter in the size range 1-75 µm in diameter.

- **Fine particulate matter (PM_{10})** -Particulate matter with an aerodynamic diameter of less than 10 µm.
- **SEPA** - Scottish Environment Protection Agency
- **GoMMMS** - Guidance On The Methodology For Multi Modal Studies, Department of Environment, Transport and the Regions (2000)
- **HGV's** - Heavy Goods Vehicles
- **$L_{A10,T}$** - Sound pressure level exceeded for 10% of the time T
- **$L_{Aeq,T}$** - Equivalent continuous A-weighted sound pressure level normalized to the time T
- **Milligrammes per cubic metre (mg/m^3)** - A concentration of 1 mg/m^3 means that one cubic metre of air contains one milligramme (thousandth of a gramme) of pollutant.
- **Microgrammes per cubic metre ($\mu g/m^3$)** - A concentration of 1 $\mu g/m^3$ means that one cubic metre of air contains one microgramme (millionth of a gramme) of pollutant.
- **NMHC** - Non methane hydrocarbons
- **NO** - Nitric Oxide
- **NO_2 (nitrogen dioxide)** - The only oxide of nitrogen for which an air quality value has been set for the protection of human health.
- **NO_x (oxides of nitrogen**) - Emitted by combustion processes, including motor vehicle engines, consisting of nitric oxide (NO) and nitrogen dioxide (NO_2), collectively termed NOx. NO is converted to NO_2 in the atmosphere.
- **NPPGs** - National Planning Policy Guidance
- **PM_{10}** - Fine particles (less than 10 µm in diameter)
- **Ppv** - Peak Particle Velocity
- **RIGS** - Regionally Important Geological Site
- **SEL** - Sound Exposure Level. Equivalent continuous A-weighted sound pressure level normalized to a time of one second
- **Soiling** - A visible effect caused by the cumulative deposition of airborne dust onto a surface.
- **SO_2** - Sulphur dioxide
- **SPPs** - Scottish Planning Policy Statements
- **SSSI** - Site of Special Scientific Interest
- **SWL** - Sound Power Level
- **THC** – Total Hydrocarbons
- **VDV** - Vibration Dose Value
- **EVDV** - Estimated Vibration Dose Value, a form of energy averaged vibration level, similar to (but not the same as) L_{eq}.
- **ppv** Peak particle velocity, the maximum velocity of a vibrating particle in an acoustic wave.

- **L_{Aeq}** - The equivalent continuous A-weighted sound pressure level, it is a single number that represents the total sound energy measured over that period. It is the sound level of a notionally steady sound having the same energy as a fluctuating sound over a specified measurement period.
- **L_{A90}** - The noise level exceeded for 90% of the measurement period, it generally reflects the noise level in the lulls between individual noise events.
- **$L_{A10,18h}$** - L_{A10} is the noise level exceeded for 10% of the measurement period, it is generally used to describe road traffic noise. Defined in CRTN as the arithmetic average of the individual 1 hour $L_{A10,1h}$ levels between 06:00-00:00.
- **DB** - Decibel, unit of noise measurement.
- **dB(A)** - A- weighted decibel. The human ear system does not respond uniformly to sound across the detectable frequency range and consequently instrumentation used to measure noise can be weighted to represent the performance of the ear, this is known as the 'A weighting'.
- **L_w** - Sound power level, sound power (the sound energy radiated by a sound source per unit time) measured on the decibel scale.