

Edinburgh Airport Rail Link



Environmental Statement

Volume 1

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Main Authors:	Steve Purnell, Andy Coates, Aileen McLuckie
Checked by:	Steve Purnell
Approved by:	Steve Purnell
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Project Manager:	Andy Coates, Project Manager, ERM

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For enquiries please contact:

tie ltd
Verity House
2nd Floor
19 Haymarket Yards
Edinburgh
EH12 5BH

Tel: 0131 622 8300
Fax: 0131 622 8301
www.earlproject.com
susan.clark@tie.ltd.uk

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LIST OF ABBREVIATIONS

AA -	Appropriate Assessment
AL -	Advisory Leaflet (Department of Environment)
AGLV -	Area of Great Landscape Value
AIFC -	Area of Importance for Flood Control
AOLQ -	Area of Outstanding Landscape Quality
AQMA -	Air Quality Management Area
AQS -	Air Quality Strategy
ASAI -	Area of Special Agricultural Importance
AURN -	Automatic Urban and Rural Network
BAA -	BAA plc (formerly British Airports Authority)
BALP -	Broxburn Area Local Plan
BAP -	Biodiversity Action Plan
BRE -	Building Research Establishment
CAA -	Civil Aviation Authority
CAP -	Common Agricultural Policy
CARs -	Water Environment Controlled Activities Regulations (Draft) 2004
CDA -	Core Development Area
cc -	Climate Change
CEC -	City of Edinburgh Council
CECAS -	City of Edinburgh Council Archaeology Service
CERT -	City of Edinburgh Rapid Transit
CIRIA -	Construction Industry Research and Information Association
CO ₂ -	Carbon Dioxide
CoCP -	Code of Construction Practice
CoPA -	Control of Pollution Act 1974
CRN -	Calculation of Railway Noise
CROW -	National Catalogue of Rights of Way Reference
CRTN -	Calculation of Road Traffic Noise
dB (A) -	Measure of noise 'A' weighted for human hearing
DEFRA -	Department for the Environment, Food and Rural Affairs
DMRB -	Design Manual for Roads and Bridges
EARL -	Edinburgh Airport Rail Link
EC -	European Community
ECLP -	Edinburgh City Local Plan
E&G -	Edinburgh to Glasgow Railway Line
EIA -	Environmental Impact Assessment
ELBG -	Edinburgh and Lothians Badger Group
ELSP -	Edinburgh and the Lothians Structure Plan
ERM -	Environmental Resources Management Ltd
ES -	Environmental Statement
FEDS -	Framework for Economic Development in Scotland
FETA -	Forth Estuary Transport Authority
FDSFB -	Forth District Salmon Fishery Board
FWAG -	Farming and Wildlife Advisory Group
GDP -	Gross Domestic Product

ha -	Hectare
HGV -	Heavy Goods Vehicles
HIA -	Health Impact Assessment
HMRI -	Her Majesty's Rail Inspectorate
HS -	Historic Scotland
Hz -	Herz frequency range
IEEM -	Institute of Ecology and Environmental Management
IFA -	Institute of Field Archaeologists
km -	Kilometre
LAQM -	Local Air Quality Management
LARG -	Lothian Amphibian and Reptile Group
LBAP -	Local Biodiversity Action Plan
LBG -	Lothian Bat Group
LEWPO -	Long Established Woodland of Plantation Origin
LFS -	Labour Force Survey
LLAU -	Limits of Land to be Acquired or Used
LNR -	Local Nature Reserve
LOD -	Limits of Deviation
LPI -	Local Plan Inquiry
LTS -	Local Transport Strategy
LWIC -	Lothian Wildlife Information Centre
LWS -	Listed Wildlife Site
m -	Metre
NAQIA -	National Air Quality Information Archive
NO ₂ -	Nitrogen dioxide
NMRS -	National Monuments Record of Scotland
NPFS -	National Planning Framework for Scotland
NPPG -	National Planning Policy Guideline
NTS -	Non-Technical Summary
NSR -	Noise Sensitive Receptor
NWELP -	North West Edinburgh Local Plan
OD -	Ordnance Datum (system for measuring height above sea level)
OS -	Ordnance Survey
PAN -	Planning Advice Note
PM ₁₀ -	Particulate matter
PPG -	Pollution Prevention Guidelines (SEPA)
PPV -	Peak Particle Velocity
QLP -	Queensferry Local Plan
RAMSAR	Protected Wetland site under the RAMSAR Convention
RCAHMS	The Royal Commission on Ancient and Historical Monuments of Scotland
RHS -	Royal Highland Showground
RIGS -	Regionally Important Geological Site
RNKLP -	Ratho, Newbridge and Kirkliston Local Plan
ROW -	Rights of Way
RRC -	The River Restoration Centre
RSPB -	Royal Society for the Protection of Birds
RTS -	Regional Transport Strategy
RWELP -	Rural West Edinburgh Local Plan Consultation Draft 2003
SASA -	Scottish Agricultural Science Agency

SAM	-	Scheduled Ancient Monument
SEEL	-	Scottish Enterprise Edinburgh and Lothian
SEPA	-	Scottish Environment Protection Agency
SESTRAN	-	South East Scotland Transport Partnership
SIC	-	Standard Industry Classification
SIMD	-	Scottish Index of Multiple Deprivation
SINC	-	Site of Importance for Nature Conservation
SKM	-	Sinclair Knight Merz
SMC	-	Scheduled Monument Consent
SMR	-	Sites and Monuments Records
SNH	-	Scottish Natural Heritage
SO ₂	-	Sulphur dioxide
SPA	-	Special Protection Area
SPOKES	-	Lothian Cycle Campaign
SPP	-	Scottish Planning Policy
SRA	-	Strategic Rail Authority
SSRS	-	Scottish Strategic Rail Study
SSSI	-	Site of Special Scientific Interest
STAG	-	Scottish Transport Appraisal Guidance
SUDS	-	Sustainable Urban Drainage System
SWELP	-	South West Edinburgh Local Plan
SWHJV	-	Scott Wilson Halcrow Joint Venture
SWT	-	Scottish Wildlife Trust
TA	-	Transport Assessment
tie	-	tie ltd
TL2	-	Edinburgh Tram Line 2
TPO	-	Tree Preservation Order
UKBAP	-	UK Biodiversity Action Plan
VEM	-	Visual Envelope Map
VDV	-	Vibration Dose Value
WELP	-	West Edinburgh Local Plan
WEPF	-	West Edinburgh Planning Framework
WEWS	-	Water Environment and Water Services Act 2003
WFD	-	Water Framework Directive 2000/60/EC
WHO	-	World Health Organisation
WLC	-	West Lothian Council
WLLP	-	West Lothian Local Plan
WOSAS	-	West of Scotland Archaeology Service
WS	-	Wildlife Site
WSI	-	Written Scheme of Investigation

GLOSSARY OF TERMS

A-weighting	Environmental noise measurements and levels are usually expressed using a variation of the decibel scale which gives less weight to low frequencies and very high frequencies. This system was derived to correspond to the reduced sensitivity of the hearing mechanism to these frequencies when noise levels are low (ie relatively quite). It is now used regardless of the intensity of the noise.
Addendum ES	A short follow-on report which forms part of the ES and reports on any additional assessments.
Airport Public Safety Zones	Areas defined by the Civil Aviation Authority (CAA) and located at each end of the main runway of Edinburgh Airport. Development is controlled in these zones in the interests of public safety.
Alluvium	A fine grained fertile soil consisting of mud silt and sand deposited by flowing water.
Ambient Background Noise Level (L_{A90})	Surrounding background noise level, which is a measure of the low level of noise that occurs between the higher noise levels from particular events, for example passing vehicles. This may be abbreviated to BNL and has the symbol L _{A90} . It represents the value exceeded for 90% of the time period being considered. It is higher than the minimum noise level but may be regarded as the typical noise level during 'quiet periods'.
Area of Great Landscape Value (AGLV)	Areas designated by the Council that have special landscape character or high landscape quality and require protection from obtrusive or unsympathetic development.
Baseline	The existing environmental conditions of a site or area upon which impacts are predicted against which the potential effects from EARL are identified and evaluated in this ES.
Berm	A bank of earth.
Biodiversity	The constantly changing variety of all life forms, the genes they contain and the ecosystems they form.
Bulked Spoil	Volume of earth when extracted.
Capping Beam	Pre cast concrete units installed on top of existing bridge abutments to support bridge structures.
Carboniferous	The fifth period of the Palaeozoic era during which coal measures were formed.
Chord	A short section of railway connecting two main railway lines allowing destinations to be met more easily without the need for trains to reverse.
Cist	A cist is a stone lined grave.

Circulars	Statements of Scottish Executive policy and guidance on policy implementation through legislative or procedural change.
Client Team	tie ltd and the other members of the Rail Operating Group (ie the City of Edinburgh Council, the Scottish Executive, the Strategic Rail Authority, BAA, SESTRANS, Network Rail and ScotRail).
Code of Construction Practice (CoCP)	A CoCP sets out measures that must be followed during construction in order to minimise environmental impacts and health and safety risks.
Cofferdam	A watertight structure that encloses an area under water pumped dry to enable construction work to be carried out.
Contiguous Piling	Hollow cylindrical piles that are bored or screwed into position and then concrete filled. Joints are then sealed to provide a continuous watertight barrier. Often used where sediments/soils are unstable.
Copse	A dense growth of small trees or bushes.
Culvert	A drain or covered channel that crosses under a road, railway etc.
Cumulative Impacts	Impacts that arise from the accumulation of a number of individual impacts.
Cut and Cover Box Tunnel	Trenching to excavate a box tunnel and then relaying the earth over it.
Cutting	An excavation for carrying a canal, railway, road or pipeline below ground level.
Cross Over Double Junction	A railway junction connecting two railway lines and allowing parallel train movements between railway lines.
Decibels (dB)	Noise levels are measured using the decibel scale. This is not an additive system of units (as for example, metres or kilograms are) but a proportional system (a logarithmic progression). A change of 10 dB corresponds to a doubling of loudness; changes of less than 3 dB are not normally regarded as noticeable.
Deciduous	Trees and shrubs which shed all leaves annually at the end of the growing season.
Designed Landscape	An area of significant parkland and woodland, generally centred upon a mansion house or castle, which has been laid out for artistic effect and included in the Scottish Inventory of Gardens and Designed Landscapes.
Development Plan	The statutory development plan for an area comprises the approved Structure Plan and the adapted Local Plan. Draft and finalised plans constitute material considerations in development control.

Dewatering	Extraction of ground water to artificially lower ground water levels to prevent an influx of water to sub surface construction or operational areas, or the extraction of surface on drainage waters that may infiltrate such an area.
Embankment	A ridge of earth or rock constructed above ground level to carry a road, railway, canal, etc, or to contain water.
Environmental Impact Assessment (EIA)	A systematic procedure required under the Environmental Impact Assessment (Scotland) Regulations 1999 (SI 1999 No 1) that identifies, predicts and evaluates the impacts that a proposed development may have on the environment.
Environmental Statement (ES)	A document reporting the findings of an EIA.
Equivalent Continuous Sound Level (L_{Aeq,T})	The L _{Aeq} level gives a single figure to describe a sound that varies over a given time period, T. It is the A-weighted steady sound level that would result in the same sound energy at the receiver as occurred in practice with the varying level. It is derived from the logarithmic summation of the sound signal, and so unlike a conventional (linear) average it gives additional weighting to higher levels.
Façade Level	Noise levels at locations 1 m from the façade of a building are described by the term Façade Levels and are subject to higher noise levels than those in open areas (free-field conditions) due to reflection effects.
Fauna	All the animal life of a given place or time.
Fermtowns	Scottish rural farm towns.
Fissures	Long narrow cleft or crack.
Flat Double Junction	An at grade railway junction connecting two railway lines (2 tracks each).
Floodplain	The flat area bordering a river that accepts flood waters during times of flooding. Composed of flood related river sediment deposits.
Flora	All the plant life of a given place or time.
Freeboard	The distance between normal water level and the top of a structure.
Geology	The scientific study of the origin, structure and composition of the earth.
General Permitted Development Order	The Town and Country Planning (General Permitted Development) (Scotland) Order 1992 is a statutory instrument (secondary legislation) which sets out certain classes of development that are permitted without the need to gain express planning permission.
Glacial Till	A glacial deposit consisting of rock fragments, the most common being boulder clay.

Grade Separated Junction	A grade separated, or segregated junction, constitutes of a junction where one alignment crosses over or under another alignment using a bridge or tunnel.
Greenbelt	A zone of farmland, parks and open country surrounding a town or city designated for the purposes of restricting urban sprawl and conserving the landscape.
Greenfield	An area that has not previously been built upon.
Groundwater	Underground water that is held in the soil and in permeable sediments and rocks.
Haul Roads	Access routes for use specifically during construction to deliver and remove materials.
Hazard Consultation Zones	Areas within which existing land uses and infrastructure constitute a potential source of hazard to the public.
Hazardous Waste	Waste material as stated in the Hazardous Waste Directive 91/689/EC. Includes all toxic, flammable and potentially infectious waste.
(Rapid) Health Impact Assessment	Process of investigation, consultation and assessment into the potential health impacts of a scheme or activity.
Hydrology	The study of the water of the earth and its atmosphere.
Igneous Intrusive Rocks	Rocks derived from magma or lava that have solidified on or below the earth's surface.
Inert Waste	Waste that does not undergo physical, chemical or biological reaction. Inert waste is not considered harmful to the environment if disposed of appropriately eg to landfill.
Index of Multiple Deprivation (IMD)	Indices that measure the relative deprivation per electoral ward. Values are calculated by measuring aspects such as employment, access to services, income and living environment.
In-Situ	In the original position.
Kiss-and-Fly	A term used to describe passengers being dropped off at the airport to catch their flight.
Landfill	The disposal of waste material by tipping into officially registered and designated voids (holes in ground).
Landscape Character Area	Areas that are defined by specific landscape characteristics or components eg land use, vegetation, settlements.
Limits of Deviation (LOD)	The precise boundary of land which is required permanently for the development and operation of a scheme (eg a railway scheme). The scheme is built within these limits.

Limits of Land to be Acquired or Used (LLAU)	Land, or rights over land, required either temporarily or permanently for the construction and operation of a scheme (eg a railway scheme). The LLAU encompasses a greater area of land than the LOD in order to allow for other related works to occur either temporarily or permanently, eg construction sites, access alterations, landscaping.
Listed Building	A building included on the Secretary of State's list of buildings of special architectural or historic interest, which is afforded statutory protection under the Scottish Planning Acts.
Local Plan	A statutory document that sets out detailed policies and proposals to guide development in an area. After considering all views and objections and making suitable changes, councils will adopt the local plan as the basis for their decision making in the area. This cannot be done if the local plan is not in line with the approved structure plan.
Local Transport Strategy	Document prepared by the Council setting out its transport objectives and an implementation programme.
Magnitude	Assessment of the size of an environmental impact with consideration to its scale and the sensitivity of affected receptors.
Material Assets	Term used to refer to the physical and non-physical aspects of the environment that have economic value.
Maximum Noise Level (L_{Amax})	The L_{Amax} is the highest value of the sound level over a specified period. It is sometimes referred to as 'peak' noise level. However, the term 'peak' has a special meaning in acoustics and the expression 'maximum' is preferable to avoid confusion.
Mitigation	Measures taken to avoid, reduce, remedy or compensate for identified adverse environmental impacts or to create and enhance environmental benefits.
Modal Shift	Expected shift of people from transport modes; eg from private car to rail travel.
Natura 2000	EU network of classified SPAs and Special Areas of Conservation.
Noise	Unwanted sound. Any sound, that has the potential to cause disturbance, discomfort or psychological stress to a subject exposed to it, or any sound that could cause actual physiological harm to a subject exposed to it, or physical damage to any structure exposed to it, is known as noise.
Nomenclature	The terminology used in a particular science ie scientific and English names.
Non-Technical Summary	Summary of the main findings and conclusions of the Environmental Statement presented in non-technical language.

Open Box Section	Subsurface facility with retained side walls and without an integral structural roof ie open top.
Parapet	A protective fence or wall at the edge of a bridge or similar structure.
Park-and-Fly	A term used to describe passengers parking at the airport before catching their flight.
Park-and-Ride	Car parks adjacent to public transport facilities where encouragement will be given to terminate journeys by private car and continue travelling into the city by public transport.
Particulate Matter (PM₁₀)	Airborne particles of less than 10 micro meters in size.
Peak Particle Velocity (PPV)	The rate of change of displacement of the particles in a solid medium. It is the term usually used to describe vibration in relation to activities involving blasting. Velocity will vary from zero to a maximum value — the peak particle velocity, and the units used are millimetres per second (mm/s).
Permeability	A measure of how much liquid can pass through the medium eg with respect to rocks, the pores or openings that permit the passage or storage of groundwaters.
Pile	A concrete or steel structure driven into the ground to serve as a foundation or barrier.
Pillbox	A static defended outpost constructed during World War II
Planning Advice Note (PAN)	PANs are prepared by the Scottish Executive Development Department and contain advice on good practice and other relevant information.
Possessions	Closure of a section of an operating rail network for a specific period of time to allow for engineering and construction works on and in the vicinity of existing railway.
Prime Agricultural Land	Agricultural land classified as Categories 1, 2 and 3(i) on the Macaulay System, and representing the land with the greatest agricultural productive potential.
Promoter	A person or body from outside the Scottish Parliament who lays a Private Bill before it.
Raptor	Bird of prey.
Realigned	Where a road alignment is permanently altered.
Receptor	Physical or non-physical aspect of the environment that may experience impacts as a result of constructing and operating a scheme eg watercourse, woodland, residential properties, landscapes.
Reference Case	Traffic modelling baseline year.
Residual Impact	The environmental impacts that remain following the application of possible mitigation.

Revetment	A facing used to support an embankment.
Riparian	Relating to a river bank or adjacent habitat.
Ruderal	Growing in refuse or waste ground.
Salmonid Waters	Waters of current or potential quality to support salmonids (including salmon and trout).
Scheduled Ancient Monument	A monument or site of archaeological importance which is in the guardianship of the Secretary of State or which has been scheduled by the Secretary of State as being of archaeological importance under the terms of the Ancient Monuments and Archaeological Areas Act 1979.
Scoping	Process undertaken to identify the key issues in an EIA.
Scottish Planning Policies (SPPs)	Recently introduced statements of Scottish Executive policy on nationally important land use and other planning matters, supported where appropriate by a locational framework.
Scottish Private Bill	A Bill that is laid before the Scottish Parliament by a person or body from outside the Parliament (ie a Promoter).
Scottish Transport Appraisal Guidance (STAG)	The Scottish appraisal framework that assists in the assessment and evaluation of a transport scheme. STAG consists of five sections: Environment, Safety, Accessibility, Economy and Integration.
Secondary Impacts	Environmental impacts that occur as a consequence of an initial environmental impact of EARL.
Set Aside	An area of land set aside (ie not in productive use), under the European Common Agricultural Policy.
Severance	Where a physical barrier is created through an area or feature, eg road severance or field severance.
Significant Impact	An environmental impact, which in the judgement of the EIA team is of significant magnitude to be taken into account in the decision-making process.
Site of Interest for Nature Conservation (SINC)	Site of local conservation value afforded policy protection through the Local Plan.
Sites of Importance for Nature Conservation (SINC)	Sites within the local plan area, which have been identified by the Council as being of known conservation importance in the local context in terms of their flora, fauna, geological or physiographical features.
Sites of Special Scientific Interest (SSSI)	A site designated by Scottish Natural Heritage as requiring special protection because of its flora, fauna, geological or physiographical features under the Wildlife and Countryside Act.
Special Protection Area (SPA)	An area of international importance for birds designated under EU Directive 79/409 on the Conservation of Wild Birds.

Sleeper Soffit	Underside of a railway sleeper.
Special Protection Area	An area of international importance for birds under EU Directive 79/409 on the Conservation of Wild Birds.
Spread Footing	A typical ground bearing reinforced concrete foundation including a widening of any structure at the foot to improve its stability, in breakwaters, earth or other dams, or simple walls.
Spoil	Rock and soil waste material.
Stopped Up	Where a public or private road or other Right of Way is blocked up to prevent through-access.
Structure Plan	A statutory document that takes a long-term view of development in an area, considering its general scale and broadly where it should be located. Each council will prepare a structure plan either alone or working with neighbouring councils.
Sustainable Urban Drainage System (SUDS)	A system or combination of drainage management practices and control structures designed to drain surface water or manage waters in a sustainable manner.
Technical Adviser Team	The technical experts advising the EARL Client Team including Scott Wilson Halcrow Joint Venture, ERM and Landaspects.
Transport Assessment	Provides information on the suitability of an application in terms of travel demand and travel impacts.
Tributary	A stream or river which feeds into another larger stream or river.
Un-bulked Spoil	Volume of earth <i>insitu</i> .
Underpinning	Engineering solution to ensure that any soil settlement caused by a lowering of groundwater levels does not cause structural damage to buildings.
Use Classes Order	The statutory instrument termed the Town and Country Planning (Use Classes) (Scotland) Order 1997, which sets out various classes of use for the purpose of establishing when a change of use requires planning permission.
Vibration Dose Value (VDV)	A vibration measurement parameter that combines the magnitude of vibration and the time for which it occurs. The measurement is based on a form of acceleration that is frequency weighted to reflect human sensitivity to various frequencies (see BS6472). VDV criteria relates to the various degrees of 'adverse comment' which may be received from occupants of residential buildings.
Waste Management	The reduction, re-use, recovery, treatment and disposal of waste including domestic refuse, demolition and road construction materials, industrial and agricultural waste, and sewage.

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