

## **16. Schedule of Environmental Commitments**

### **16.1. Introduction**

- 16.1.1. All mitigation measures identified within this Environmental Statement (ES) necessary to help protect the environment prior to or during construction of the proposed scheme will be incorporated into the method statements and the contractor's environmental management system. The method statements, environmental management system and the ES provide mechanisms to ensure compliance with environmental commitments. Legal and other environmental requirements will be defined and established to ensure that they are implemented. Monitoring procedures will be in place to check the implementation of any legal/other environmental requirements, and specific consultation requirements will be in place to ensure mitigation measures are implemented and adhered to.
- 16.1.2. The purpose of the Schedule of Environmental Commitments is to collate mitigation measures identified throughout the ES for ease of reference. The schedule provides a record of commitments that the contractor will be obliged to adhere to. The following factors are included in Table 16.1:
- The specification of the mitigation measure
  - The objective of the mitigation
  - The location and timing of the mitigation
  - Any monitoring requirements
    - This includes on site monitoring by contractors, the site supervision team and any future upkeep.
  - Any consultation required
    - Consultation may be required with various statutory organisations.
- 16.1.3. The Schedule of Environmental Commitments provides a summary of outline mitigation measures developed at this stage in the design process. The measures outlined in Table 16.1 may require further specification during the detailed design stage.

**Table 16.1 Schedule of Environmental Commitments**

Item	Mitigation Measure	Objective of Mitigation	Location, and Timing of Mitigation Measure	Monitoring Requirements	Additional Consultation Required
<b>Air Quality</b>					
AQ 1	Materials covered whilst in transit	Dust control	Whole site, construction phase	Monitored by the site supervision team	N/A
AQ 2	Wheel wash facilities, speed limits and dampening down of vehicle routes	Dust control	Whole site and at designated areas washing facilities, construction phase	Monitored by the site supervision team	N/A
AQ 3	Exposed stockpiled material to be dampened down when necessary	Dust control	Whole site, construction phase	Monitored by the site supervision team	N/A
AQ 4	Dust creating construction activities to be avoided during very dry or windy weather	Dust control	Whole site, construction phase	Monitored by the site supervision team	N/A
<b>Cultural Heritage</b>					
CH 1	Archaeological watching brief	Recording and excavation of any encountered cultural heritage features	Whole site where new land take is required, construction phase	Monitored by archaeologist	Historic Scotland
CH 2	Recording of asset in advance of removal	To record relevant details of Kirklandhill cottage prior to demolition.	Site 9a, construction phase	Monitored by Contractor	N/A
<b>Ecology and Nature Conservation</b>					
ENC1	Vegetation clearance to be undertaken between September and February	To prevent disturbance to nesting birds	Where vegetation removal is to take place, prior to construction	Monitored by the site supervision team	N/A
ENC 2	Minimise temporary and permanent land take and retain as much vegetation as possible	To minimise loss of habitat and disturbance to species	Whole site, prior to, during and post construction	Monitored by the site supervision team	N/A
ENC 3	Works within the watercourses to be undertaken between May and October and	To prevent disturbance to fish eggs present in the	Watercourses during construction	Post construction surveys to monitor fish	Ayrshire Rivers Trust

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	Surface Water Management measures agreed with SEPA to be implanted	gravel		populations (undertaken by a qualified ecologist)	
ENC 4	Temporary and permanent culverts to meet with the requirements for fish passage and migration	Allow fish to migrate upstream to spawning grounds	Watercourses, during and post construction	Post construction surveys to monitor fish populations (undertaken by a qualified ecologist )	Ayrshire Rivers Trust
ENC 5	Installation and of an artificial badger sett	For displaced badger	Affected outlier badger sett, prior to, during and post construction	Pre-construction, during construction and post construction surveys to monitor badger population and use of artificial sett (undertaken by a qualified ecologist )	SNH & Scottish Badgers
ENC 6	Installation of purpose-built underpasses with badger-proof fencing	To minimise badger deaths through road traffic accidents	Located on or close to existing badger paths, during construction	Post construction surveys to monitor badger populations (undertaken by a qualified ecologist )	SNH & Scottish Badgers
ENC 7	Pre-construction surveys for badger activity	To establish the badger activity as a result of the artificial sett and the destruction of the old sett	Located in the vicinity of NGR NS 31264 11309, during suitable survey season immediately prior to any construction works	Ecological Clerks of Work	SNH & Scottish Badgers
ENC 8	Noisy working to cease up to 2 hours prior to	To minimise the disruption to badger	Within 30m of known badger	Monitored by Contractor and	N/A

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Item	Mitigation Measure	Objective of Mitigation	Location, and Timing of Mitigation Measure	Monitoring Requirements	Additional Consultation Required
	sunset		setts, during construction	site supervision team	
ENC 9	Best practice techniques, outlined within BS5228: Code of practice for noise and vibration control on construction and open sites.	To minimise noise and vibration during the works which would disturb the local wildlife.	During construction	Monitored by Contractor and site supervision team	N/A
ENC 10	Lighting hoods should be fitted directing the light only to the working area	To avoid light splaying into surrounding areas and confusing badger and other wildlife	Where artificial lighting is needed, during construction	Monitored by Contractor and site supervision team	N/A
ENC 11	Trenches and open ditches must be covered at the end of each working day, with means of escape provided	To avoid wildlife falling in	Whole site where trenches and ditches are present, during construction	Monitored by Contractor and site supervision team	N/A
ENC 12	Pre-construction surveys	To ensure no new wildlife has moved to the site following the initial surveys	Whole site, pre-construction	N/A	SNH / Scottish Badgers / Transport Scotland
ENC 13	Installation of otter ledge or dry tunnels where culverts are present	To aid the passage for otter during heavy flows	Where culverts have to be in place	Pre-construction and post construction surveys to monitor otter populations (Undertaken by a qualified ecologist)	SNH
ENC 14	Planting of trees and hedgerows	To mitigate for trees and hedgerows which are to be lost	Whole site where vegetation removal occurs, post construction	Monitored by the site supervision team	N/A
ENC 15	Grass verges to be sown with wildflower seeds	To maximise potential for invertebrates and birds	Whole site, post construction	Post construction monitoring by member of landscape team	N/A
Landscape Effects					

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Item	Mitigation Measure	Objective of Mitigation	Location, and Timing of Mitigation Measure	Monitoring Requirements	Additional Consultation Required
LE 1	Development of a landscape design using native species	To preserve and enhancement of the existing landscape and enhancement of the landscape character	Whole site, during design, construction and operation	Monitoring on site of planting survival rates (Undertaken by member of the landscape team)	SNH / SAC
LE 2	Replacement and new planting	To mitigate the loss of mature trees and hedgerows	Whole site, during design and construction	Monitoring of planting/seeding establishment during aftercare period. (Undertaken by member of the landscape team)	N/A
LE 3	Disposing of any ash <i>Fraxinus</i> sp. trees to be in accordance with guidance produced by the Forestry Commission	To prevent the spread of ash dieback <i>Charlara fraxinea</i> .	Whole site, during design, construction and post construction	Monitor the site for any reoccurrence of ash dieback. (Undertaken by member of the landscape team)	Forestry Commission
LE 4	Calculation of Root Protection Areas (RPA) in accordance with BS5837: 2012 Trees in relation to design, demolition and construction - Recommendations	To prevent damage to specimen trees	Whole site, during design and during construction	N/A	Arboroculturist.
LE 5	Retention of existing vegetation where possible	To minimise adverse visual impact	Whole site, during design and construction	Monitored by the site supervision team	N/A
LE 6	Traffic and security lights to be designed to minimise light spillage into adjacent areas	To minimise adverse visual impact to locals	Whole site, during design and construction	N/A	N/A
LE 7	Reduce field fragmentation and utilise the areas with planting	To encourage biodiversity and improve the visual impact	Whole site, during design and construction	N/A	N/A
LE 8	Limitation of the size and extent of working and storage areas and haul routes	To minimise landscape destruction and adverse visual impact	Whole site, during construction	Monitored by Contractor	N/A

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Item	Mitigation Measure	Objective of Mitigation	Location, and Timing of Mitigation Measure	Monitoring Requirements	Additional Consultation Required
LE 9	Screen planting along road verges	To reduce the visual impact of the road	Whole site, during design and construction	N/A	N/A
LE 10	Sympathetic earthworks including earthworks screening to screen the southern roundabout from Broomknowes Farm	To reduce the visual impact of the road	Whole site, during design and construction	N/A	N/A
LE 11	Woodland planting on the new strip of land linking Smithston Bridge and along the rail corridor to Black Glen	To help screen and integrate the road as well as provide biodiversity benefits	Whole site, during design and construction	N/A	N/A
LE 12	Grading the surfaces of any ponds designed	To marry into the existing ground and landscape	SuDS ponds, during design and construction	N/A	N/A
Land Use					
LU 1	Recreational users to be directed or escorted through the site. Road users will require clearly signed diversions	To mitigate any potential adverse effects to land use	Whole site, during construction	Management of diversions by onsite team through traffic management.	N/A
LU 2	Early notification to all relevant stakeholders and public notification to be provided	To inform those potentially affected by the construction works	Whole site, during design and construction	N/A	N/A
LU 3	Accommodation works, to provide alternative access where these may be disrupted	To minimise the severance to land and properties	Whole scheme, during construction	N/A	N/A
LU 4	Restoration of disturbed areas to original use wherever possible	To maintain existing land use as far as possible	Whole scheme, during design, construction and post construction	Monitored by Contractor	N/A
LU 5	Replace hedgerows along boundaries	To help protect fencing, increase biodiversity and help to minimise the visual impact of the proposals	Whole scheme, during design, construction	N/A	Landowners

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Item	Mitigation Measure	Objective of Mitigation	Location, and Timing of Mitigation Measure	Monitoring Requirements	Additional Consultation Required
LU 6	Consider A to Bee Initiative within appropriate land adjacent to the scheme	Increasing pollinators for the benefit of biodiversity and the environment throughout the scheme	Whole scheme – specifically within East Brockloch land, post construction	Monitoring and management of land post construction (Undertaken by member of the landscape team/ecologist)	Landowners, Ayrshire Beekeepers Association South Ayrshire Council
<b>Noise and Vibration</b>					
NV 1	Low noise surfacing to be used	To assist in control of noise from the tyre interaction	Whole scheme, during design and construction	N/A	N/A
NV2	Best practicable means of noise control, as described within BS 5228-1:2009 Code of practice for noise and vibration control on construction and open sites – Noise, and BS 5228-2:2009 Code of practice for noise and vibration control on construction and open sites – Vibration to be implements	To minimise the disturbance to sensitive receptors	Whole scheme, during design and construction	N/A	SAC
NV 3	Programming of works to be undertaken during normal working hours	To minimise the disturbance to sensitive receptors	Whole scheme, during design and construction	N/A	SAC
NV 4	All plant to be maintained to minimise noise.	To minimise the disturbance to sensitive receptors	Whole scheme, during construction	Monitored through noise measurements at nearby receptors by the contractor	N/A
NV 5	Noise and vibration limits from the construction operations to be limited to levels agreed with South Ayrshire Council	To minimise the disturbance to sensitive receptors	Whole scheme, during construction	Monitored through noise measurements at nearby receptors by the contractor	N/A
NV 6	Noise levels should be monitored through regular noise	To assist in the control of noise	Whole site, during construction	On site noise monitoring at nearby	N/A

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	assessments			receptors	
<b>Pedestrians, Cyclists, Equestrians and Community Effects</b>					
PO 1	Footways to remain open and if necessary, pedestrians and other to be directed or escorted through the site	To ensure safety to pedestrians, cyclists and other community users passing through the construction area	All roads within site during construction	Monitored by Contractor	N/A
PO 2	Notice given to community users	To allow them to plan alternative routes if necessary	Whole site where side roads are present, during construction	N/A	N/A
PO 3	Provision of equestrian crossing	To provide a safe crossing point for equestrians, as there is a stable in close proximity.	Roundabout at Culzean Road, post construction.	Future maintenance will be required.	Horse society
PO 4	Provision of a new footway/cycle route.	To divert pedestrians/cyclists into the town of Maybole	At north tie	Future maintenance will be required.	N/A
<b>Vehicle Travellers</b>					
VT 1	Site supervision in place	To ensure the site is kept tidy	Whole site, during construction	Monitored by the site supervision team	N/A
VT 2	Traffic management in place with notification to residents and other road users	To minimise the impact upon driver stress	Whole site, during construction	Monitored by Contractor	Local media
VT 3	Adopt strategic tree planting, avoiding extended lengths of linear planting	To maintain views from the road to the wider landscape	Whole site, during construction	Landscape Designer and site supervision team	N/A
<b>Road Drainage and the Water Environment</b>					
RD 1	Implementation of an Environmental Management Plan in line with relevant SEPA Pollution Prevention Guidelines	To minimise potential water quality impacts	Whole site, during construction	Monitored by Contractor	SEPA & SAC
RD 2	Construction workers briefed on location of	To minimise potential	Whole site, during	Monitored by	N/A



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Item	Mitigation Measure	Objective of Mitigation	Location, and Timing of Mitigation Measure	Monitoring Requirements	Additional Consultation Required
	watercourses and how to use a spill kit	water quality impacts	construction	Contractor	
RD 3	Construction drainage network to incorporate mitigation measures	To prevent the discharge of hydrocarbons to surface or ground water systems.	Whole site, during design	N/A	N/A
RD 4	Appropriate storage for on-site materials to prevent potentially contaminating spillage events	To ensure compliance with Pollution Prevention Guidelines (PPGs) and to protect the watercourses	Whole site, during construction	Monitored by Contractor	N/A
RD 5	Any concrete works to be carefully controlled	Concrete is very alkaline and can smother and kill aquatic life	Whole site, during construction	Monitored by Contractor	N/A
RD 6	Ensure all plant machinery is maintained in a good working condition	To minimise risk of spills from faulty machinery entering watercourses	Whole site, during construction	Monitored by Contractor	N/A
RD 7	Wheel wash facilities and dust suppression	To prevent the migration of pollutants	Whole site, during construction	Monitored by Contractor	N/A
RD 8	Continual surveying of watercourses	To ensure the water quality is not affected	Whole site, pre-construction, during construction and post construction	Monitored by Contractor	SEPA
RD 9	Development of SuDS, to filter, store and treat surface water	To treat surface water runoff and improve water quality through each stage of the surface water management system	Whole site, during design, construction and post construction	N/A	SEPA
RD 10	A series of catch pit chambers upstream of an outfall	To assist with managing water quality further	Whole site, during design and construction	N/A	SEPA
RD 11	The detailed drainage strategy will be designed in accordance with CIRIA C697	To ensure that sediment and contaminants are captured and water is treated, before being discharged from the site	Whole site, during design and construction	N/A	SEPA

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RD 12	Licences under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR) will be required	As construction works which have the potential to cause pollution taking place in surface waters	Whole site, during design and construction	Contractors to adhere to regulations	SEPA
RD 13	Use of attenuation ponds and filter drains	To minimise flood risk	During construction	N/A	N/A
RD 14	Design the carriageway to include safe overland flood routes (for example to SuDS basins, watercourses or agricultural land)	To ensure the surface runoff is directed off the carriageway at discrete locations And to ensure flood risk to properties is not increased downstream	Whole site, during design, construction and post construction	Designer	N/A
<b>Geology and Soils</b>					
GS 1	Re-use of excavated material	To minimise the disturbance to soil attributes of the overall area	Whole site where excavation necessary, during construction	Any soil set aside for reuse should be stored in accordance with the Environmental Protection Act 1990 section 34	N/A
GS 2	Temporary excavations and cuttings to be inspected	To identify geological exposures of scientific interest	Whole site where excavations are taking place, during construction	Monitored by Contractor	Archaeological watching brief, BGS & SNH
GS 3	Soil resource plan to be produced	To ensure stripped topsoil is moved and handled correctly	Whole site, during design and construction	N/A	N/A
GS 4	Any unidentified areas of contamination are suspected or encountered along the scheme during construction they should not be reused until demonstrated as suitable for use through chemical testing	To ensure potentially contaminated soils are not spread throughout the site, contaminating previously uncontaminated soils	Whole site, during construction	Monitored on site and with laboratory testing if required	N/A