

Appendix B – Environmental Commitments

Land Use Mitigation

Mitigation Item	Approximate Chainage/Location	Timing of Measure	Description
LU3	All agricultural land	Construction	Potential for damage to the agricultural capability of soils will be minimised by the adoption of appropriate measures during construction and reinstatement. This includes the careful excavation, storage and replacement of topsoil and subsoil.
LU4	All agricultural land	Construction	Notice of intention to commence construction work will be given to owners and occupiers of adjacent land along the route before works commence. Consultation with landowners and occupiers will be undertaken when developing the programme of works to reduce disturbance where appropriate and without detriment to the overall programme.
LU5	All agricultural land	Construction	Temporary fences and lights will be provided in appropriate locations during construction for the protection of the health and safety of the public and animals and to avoid trespass. Where appropriate, fencing of the working area will be to a standard adequate for the purpose of excluding any stock kept on adjoining land.
LU6	All agricultural land	Construction	Where boundary features such as fences, walls and hedges have to be removed to allow construction these will be reinstated with appropriate materials to provide a secure field boundary.
LU7	All agricultural land	Construction	Where access points require alteration either temporarily or permanently as a result of construction, alternative access for stock and machinery will be provided as appropriate in consultation with the landowner/occupier. Recessed access will be provided off side roads as appropriate.
LU8	All agricultural land	Construction	Reasonable precautions will be taken during construction to avoid the spreading of soil borne pests and diseases, animal and crop diseases and invasive species.

LU9	All agricultural land	Construction	Particular care will be taken to reduce damage or disturbance to field and forestry drainage systems. Laying of new drains will be undertaken to maintain drainage systems during construction. Repairing and reinstatement of field drains affected by construction will be agreed with the landowner/occupier to ensure that land capability is maintained and flooding is not exacerbated. Where appropriate, the integrity of the drainage system will be secured in advance through the installation of header drains (cut off drains) to facilitate construction. All remaining remedial works will be undertaken post construction.
LU10	All agricultural land	Construction	Water supplies for livestock will be protected at all times and alternative supplies provided where access is compromised by any works, unless agreed with the landowner.
LU11	Newliston Estate (Land Ref 11 & 16)	Pre-Construction	Where individual stands of trees will be affected, an appropriate arboricultural assessment will be undertaken pre-construction and appropriate mitigation employed.
LU12	Newliston Estate (Land Ref 11 & 16)	Construction	Where there are no windthrow or landscape visual issues, tree felling will be reduced to that necessary to allow the safe construction and operation of the proposed scheme.

Geology, Contaminated Land and Groundwater Mitigation

Mitigation Item	Approximate Chainage/Location	Timing of Measure	Description
G2	M9 Junction 1A	Pre-construction	If mining risks are confirmed in these areas (from the assessment of the 2009 GI results), appropriate stabilisation/protection works will be implemented and a detailed assessment on the impact of grouting on groundwater and ground gas migration will be undertaken.
G3	S11	Pre-Construction / Construction	The Contractor will establish appropriate health and safety procedures, waste management procedures, workmanship and QA/QC measures applicable to the level of contamination expected at the potential land contamination sources.
G5	S1-S13	Pre-Construction / Construction	The Contractor will select appropriate construction materials with reference to guidance such as BRE SD1:2005 and BS8500.
G8	S1-S16	Pre-Construction / Construction	An assessment of ground gasses in accordance with CIRIA 665 will be produced prior to construction and adhered to during construction. If significant ground gas issues are identified, further monitoring will be undertaken and/or appropriate gas protection measures incorporated into the final design.
G9	S11	Construction	The Contractor will implement a 'watching brief' to be undertaken in order to identify any previously undiscovered areas of contamination. If any such areas are encountered, these will be dealt with appropriately.
G14	S11	Pre-Construction	The Contractor will undertake a ground improvement risk assessment including assessment of risks from migration of to inform the final design.
G18	Throughout Scheme	Construction	Refer to mitigation measures proposed for protection of surface water (mitigation measure W1 in Table 23.3).

G19	Proposed scheme around M9J1A	Construction / Operation	Road drainage, detention basins and swales will be lined to protect the surrounding water environment in the locations specified.
G20	Throughout Scheme	Construction / Operation	All detention basins and swales will be lined unless risk assessment during design development indicates that lining is not necessary at specific locations.
G25	Swine Burn	Pre-Construction	An assessment of permeability tests and groundwater/surface water monitoring results from the 2009 GI will be undertaken to inform CAR licences and discharge requirements.
G27	Throughout Scheme	Construction	Any existing pathways through services (e.g.land drains) affected during construction will be sealed. The detailed design will ensure that no new pathways are created.
G29	Throughout Scheme	Construction	The Contractor will undertake an options appraisal in accordance with CLR11 for any additional areas of contaminated land identified by the 2009 GI as requiring remediation.

Water Environment Mitigation

Mitigation Item	Approximate Chainage/Location	Timing of Measure	Description
W1	Throughout Scheme	Construction / Operation	Best practice guidance including but not limited to the following will be adhered to: SEPA Pollution Prevention Guidelines - PPG01, PPG02, PPG03, PPG04, PPG05, PPG06, PPG07, PPG08, PPG10, PPG13, PPG14, PPG18, PPG20, PPG21, PPG22, and PPG26; CIRIA Guidelines Report 142 Control of Pollution from Highway Drainage Discharges; CIRIA Report 168 Culvert Design Guide; CIRIA C609 Sustainable Drainage Systems; CIRIA C648 Control of Water Pollution from Linear Construction Projects; CIRIA C649 Control of Water Pollution from Linear Construction Projects Site Guide; CIRIA C697 The SUDS Manual; BS6031:1981 Code of Practice for Earthworks; and Defra Code of Practice for Using Plant Protection Products.
W2	Throughout Scheme	Construction	An Environmental Clerk of Works will be present on site during construction to supervise the implementation of appropriate environmental safeguards.
W3	Throughout Scheme	Construction	Temporary treatment ponds will be constructed to reduce the pollution from runoff during the construction of approach roads.
W4	Throughout Scheme	Construction	To reduce potential increases in flows into the receiving watercourses during construction, the period of exposure of bare areas and uncontrolled runoff from newly paved areas will be limited as far as practicable.
W5	Throughout Scheme	Construction	Stationary oil storage tanks will be located above the 0.5% AEP (1 in 200-year return period) flood level. Plant and material will be stored in safe areas above the 0.5% AEP (1 in 200 year return period), where practicable and temporary construction works will aim to be resistant to flood impacts in order to prevent movement or damage during potential flooding events.
W6	Throughout	Construction	The Contractor will be required to prepare a method statement for in-stream working for

	Scheme		approval by SEPA.
W7	Throughout Scheme	Construction	Temporary drainage systems will be used to alleviate localised flood risk and prevent obstruction of surface runoff pathways. Temporary SUDS systems or equivalent to reduce the potential for contaminated runoff to watercourses will be implemented.
W8	Throughout Scheme	Construction	General Binding Rule (GBR) 10 of CAR requires construction sites to be served by a sustainable drainage system, or equivalent, equipped to avoid pollution of the water environment. During construction of the site, temporary SUDS systems or equivalent to reduce the potential for contaminated runoff to watercourses will be implemented.
W9	Throughout Scheme	Construction	If flocculants are considered necessary to aid settlement of fine suspended solids such as clay particles, the chemicals used must first be approved by SEPA.
W10	Throughout Scheme	Construction	Where required, temporary discharge consents are to be obtained from SEPA and oil interceptor(s) to be provided for vehicle parking areas, if required by SEPA.
W11	Throughout Scheme	Construction	Materials for use in fill e.g. in embankments should comply with best practice. Where the Contractor considers the use of other materials, agreement with SEPA is required prior to use of such material.
W12	Throughout Scheme	Construction	<p>Effective mitigation for impacts associated with outfalls will be based on the following principles:</p> <ul style="list-style-type: none"> • construction of outfalls will not to be conducted during periods of high flow (as determined by the Environmental Clerk of Works) in order to reduce the risk of scour and erosion around the outfall structures or to the disturbed river bank; • construction of outfalls in tidal areas will be appropriately programmed and will include appropriate erosion protection measures around the works to reduce the risk of scour and erosion during high tides; • where practicable, sediment fences will be provided to prevent sediment being washed into

			<p>the watercourses; and</p> <ul style="list-style-type: none"> • where practicable, excavating into the watercourse will be avoided and the extent of disturbance limited.
W13	Throughout Scheme	Construction	Service diversions, protection of utilities, excavations and ground penetration works will be carried out according to best practice. Potential services will be identified using information from the service provider and through survey where necessary. Measures are to be taken to prevent damage to services and to avoid pollution during service diversions, excavation and ground penetration.
W14	Throughout Scheme	Construction	Best practice measures associated with storage of oil and fuels will be adhered to.
W15	Throughout Scheme	Construction	The impact of the proposed scheme can be reduced through timely implementation of certain aspects of the construction works. Reasonable precautions will be taken to develop a programme to facilitate the implementation of mitigation measures at the stage where their application will be most effective.
W16	Throughout Scheme	Construction	For all watercourses, in-channel works will be carried out during periods of low flow (as determined by the Environmental Clerk of Works) to reduce the risk of a pollution event. The length of channel disturbed will be restricted to the minimum that is required. All in-channel works and construction activities within the floodplain will be avoided during periods of high flow and increased flood risk for health and safety reasons. In-channel works will avoid spawning periods in salmonid watercourses, i.e. Niddry Burn, Swine Burn and the River Almond (between October and May). Refer to mitigation measure TE8 and TE20 in Table 23.4 (Terrestrial and Freshwater Ecology). Tie-ins back to existing channels during culvert realignment works will be undertaken during low flow conditions.
W17	Throughout	Construction	The Contractor will comply with CAR and SEPA requirements.

	Scheme		
W18	Throughout Scheme	Construction	The Contractor will be required to monitor water quality prior to and during construction in order to assess chemical and biological parameters as required by SEPA. Parameters, frequency of sampling and limits will be agreed with SEPA in advance of construction.
W19	Throughout Scheme	Construction	<p>A daily inspection is to be carried out by the Environmental Clerk of Works to identify:</p> <ul style="list-style-type: none"> • any pollution risks that are unacceptably high; • spillages and leakages; • non-compliance with the CoCP; and • any suspected incidences of pollution. <p>The Environmental Clerk of Works will recommend appropriate actions where risks are unacceptably high, where there is non-compliance with the CoCP, where spillages and leakages are unacceptable or where there are any suspected pollution incidences. Where necessary, the Pollution Incident Response Procedure is to be implemented.</p>
W20	Throughout Scheme	Construction	<p>The Contractor will take reasonable precautions to reduce the risk of pollution to the marine environment including:</p> <ul style="list-style-type: none"> • compliance with PPG14; • compliance with the requirements of the Food and Environmental Protection Act FEPA licence(s); and • compliance with all other relevant marine consents such as Coast Protection Act 1949 (CPA).

Drainage

Mitigation Item	Approximate Chainage/Location	Timing of Measure	Description
W28	Throughout Scheme	Design / Construction / Operation	For each outfall, a treatment train will be provided to maximise pollutant removal. For new sections of road and roads to be upgraded, the treatment train will consist of 3 levels of SUDS in accordance with CIRIA (2007) and approved by SEPA, including filter drains, swales and detention basins.
W31	Tributary of Niddry Burn, Niddry Burn, Swine Burn, River Almond	Design / Construction / Operation	Where structures or embankments are constructed within the floodplain, compensatory storage will be created by landforming and this will be provided directly adjacent to the watercourse floodplain where practicable.
W32	Swine Burn	Design / Construction / Operation	Two outfalls appropriately positioned with scour protection will be provided. Two treatment trains will be provided. For flood flows in excess of carriageway drainage capacity, detention or conveyance of flood water toward areas of less risk.
W33	Swine Burn	Design / Construction / Operation	One new depressed invert culvert and one double-barrel culvert extension will be provided. The culvert will be designed in line with CIRIA 168 guidance and with allowance for freeboard above the 0.5% AEP (200-year return period event) flood level and mammal passage. Regular inspection to ensure the culverts are free from debris is recommended.
W34	Swine Burn	Construction	Two stage channel with sinuous low flow channel will be provided. An adequately sized floodplain channel within the realignment will be provided to compensate for encroachment of the floodplain by the new proposed crossing and the culvert extension if required.

W35	Tributary of Swine Burn	Design / Construction / Operation	One treatment train will be provided.
W36	Niddry Burn	Design / Construction / Operation	One treatment train will be provided.
W37	Niddry Burn	Design / Construction	Culvert extension maintaining same form as existing culvert will be provided
W38	Tributary of Niddry Burn	Design / Construction	Culvert extension maintaining same form as existing culvert will be provided
W39	River Almond	Design / Construction / Operation	One treatment train will be provided.

Terrestrial and Freshwater Ecology Mitigation

Mitigation Item	Approximate Chainage/Location	Timing of Measure	Description
GENERIC/BEST PRACTICE			
TE1	Throughout Scheme	Pre-construction / Construction	The Contractor's Ecological Clerk of Works (ECoW) will be present on site to monitor construction works.
TE2	Various	Pre-construction / Construction / Operation	An Environmental Management Plan (EMP) will be prepared and will specify where and when mitigation should be undertaken including a timetable of actions.
TE3	Throughout Scheme	Pre-construction	Pre-construction surveys will be undertaken within the limits of the site and will extend 50m outwith the site boundary within areas of appropriate habitat to identify sensitive and vulnerable species. This will include surveys for badger setts, otter resting places and bat roosts adjacent to the proposed scheme. Where found, their locations will be communicated to construction staff in strict confidence to ensure no direct mortality during site clearance.
TE4	Throughout Scheme	Construction	If required by the ECoW, plant and personnel will be constrained to a prescribed working corridor through the use of temporary barriers, thereby reducing damage to habitats, potential direct mortality and disturbance to species.
TE5	Throughout Scheme	Design / Pre-construction / Construction	Works compounds, storage sites and access roads will avoid, where practicable, areas of woodland, wetland and scrub as advised by the ECoW to prevent degradation of sensitive habitat.
TE6	Throughout Scheme	Design / Pre-construction /	Suitably constructed structures primarily for badgers, bats and otters including overbridges, underpasses, and fencing, with associated planting will be created on commuting corridors.

		Construction	
TE7	Throughout Scheme	Construction	Reasonable precautions will be undertaken to avoid/reduce in-channel works and translocation of channel substrate.
TE8	Throughout Scheme	Construction	Best working practices in relation to works within salmonid watercourses will be adhered to.
TE9	Throughout Scheme	Construction	Any temporary drainage systems will be designed to prevent otters entering and becoming trapped.
TE10	Throughout Scheme	Construction	Trenches will be covered at the end of each working day or mammal ramps will be provided to allow mammals to escape.
TE11	Throughout Scheme	Construction	Vegetation buffer strips will be maintained where practical.
TE12	Throughout Scheme	Construction	Dust control measures will be implemented as outlined in mitigation measures DC13-17 (Table 23.13).
TE14	Throughout Scheme	Construction	<p>Destruction of otter resting places and bat roosts will only take place under the conditions of a European Protected Species (EPS) licence obtained from the Scottish Government through consultation with SNH.</p> <p>Destruction of badger setts will only take place under the conditions of a SNH badger development licence.</p> <p>On a case by case basis, setts and otter resting places lost to construction may require replacement. Any artificial setts and otter resting places required will be created in line with best practice guidance and with consultation with SNH.</p> <p>Pre-construction surveys for otter resting places adjacent to the proposed scheme will be undertaken and the locations of holts, couches and hovers communicated in strict confidence to construction staff. Where loss of a resting place is unavoidable, an EPS licence must be obtained</p>

			from the Scottish Government through consultation with SNH.
TE15	Throughout Scheme	Construction	Where practicable, works compounds, storage sites, access roads and construction work will be located/carried out at least 30m away from bat roosts and sensitive habitats for birds, and at agreed minimum distances from sensitive habitats for otter and badger. Any works undertaken within this distance must be subject to consultation with SNH, and undertaken under licence where applicable on a case by case basis
TE16	Throughout Scheme	Construction	Soft-start techniques will be applied to piling work procedures to encourage sensitive species to evacuate the area.
VEGETATION CLEARANCE			
TE17	Throughout Scheme	Pre-construction / Construction	<ul style="list-style-type: none"> • A method statement will be prepared in advance for all areas where tree and scrub removal is required. The ECoW will monitor vegetation removal and associated activities. • Site clearance of vegetation will be undertaken outside of the main bird breeding season where practicable (typically March-July inclusive). Where site clearance works must be undertaken during the main bird breeding season, methods of exclusion and deterrent will be used to prevent birds beginning to nest in clearance areas. The precise methods of deterrent will be developed according to habitat types and the species concerned forming part of the habitat management plan. • Any clearance works undertaken during February or August are at moderate risk of affecting breeding birds. During this period, if clearance is required, the ECoW will check any areas for evidence of breeding birds prior to works commencing. • The ECoW will advise all construction staff of the requirement to stop work should nesting birds be encountered. • All cleared material will be rendered unsuitable for nesting birds.

			<ul style="list-style-type: none"> • Tree felling will be carried out by experienced contractors according to agreed felling methods and any licensing conditions. • Vegetation clearance/tree felling will be agreed with the ECoW. • Where the removal of dead standing, fallen and felled timber is necessary, the material will be relocated into areas of existing and newly created woodland habitat within the limits of the site where practicable. • Linear features are to be retained as far as practicable allowing safe crossings for bats as advised by the ECoW.
LIGHTING			
TE18	Throughout Scheme	Scheme Design / Construction / Operation	<ul style="list-style-type: none"> • Lighting design will be according to BS 5489 and best practice guidance on lighting (e.g. Bat Conservation Trust and Institute of Lighting Engineers, 2007). • Where practicable, night time working (undertaken between sunset and sunrise) will be avoided. Where night-time working is unavoidable, mitigation will be agreed with the ECoW.
TE19	Swine Burn and their associated aquatic and wetland habitat, Niddry Burn, River Almond	Construction	Where night works are required, directional lighting will be used to ensure that roosts, woodland edges and waterbodies are not directly illuminated, or curfew times established to ensure that emerging or foraging bats, badgers, otters or migratory fish are not disturbed.
WATERCOURSES/DRAINAGE			
TE20	Throughout Scheme	Scheme Design / Construction /	<ul style="list-style-type: none"> • Construction work at watercourses will not prevent the movement of animals along the bank throughout the works period.

		<p>Operation</p>	<ul style="list-style-type: none"> • Watercourse realignments in low gradient areas will be designed to minimise sedimentation and in high gradient areas to minimise erosion. The opportunity to create suitable habitat will be incorporated through the inclusion of meander bends, secondary channels or, riparian zones where appropriate. • Where bridging is not practical and culverts are required, their length will be kept to a practical minimum. Where practical, the insertion of each culvert will not alter the gradients markedly from existing conditions so as to avoid altering flow patterns and resulting habitat loss and to avoid excessive siltation or erosion. • Altered flow regimes resulting from the use of culvert extensions or channel realignments will be avoided. Culverts will be oversized to allow natural bed and bank profiles to remain, where practicable. • On sites where dewatering is anticipated, the creation of a temporary diversion channel with suitable sized replacement substrate or transplanted substrate from the section being dewatered will be undertaken, making sure that the size and flow in the diversion channel is as near to the existing channel as practicable. • Fish will be removed from channels to be dewatered for construction of culverts, realignments or bridges. • In salmonid waters, in-channel works and piling will be avoided during sensitive periods for migrating and spawning fish (October-May inclusive). • Drainage systems will be designed to prevent otter entering and becoming trapped. • There will be no stockpiling of material within 10m of any watercourse. • Mammal ledges will be installed in new culverts and will comprise the installation of a ledge of minimum 500mm wide with access to the bank via ramps. Ledges must be a minimum of
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			150mm above high water levels and allow 600mm headroom. Ledges must take account of the preferred bank used by otters.
HABITAT RE-INSTATEMENT/CREATION			
TE22	Throughout Scheme	Construction / Operation	<ul style="list-style-type: none"> • Landscape planting and newly created habitat will be comprised of predominantly native species of local provenance where available, and will comprise a mixture of species. • Where loss or degradation of valuable habitat is unavoidable and where watercourses are realigned, they will be returned to their former quality or improved once construction is complete where practicable. • Sowing/planting will be undertaken as soon as possible following completion of the works to reduce the likelihood of the areas being colonised by invasive, non-native species which are of lower value to wildlife. • All areas of habitat loss due to temporary works, site compounds, easements, working areas or access roads will be reinstated following construction on a like for like basis. • Habitat creation will contribute to biodiversity targets identified in local (LBAP) and national (UKBAP) strategies. • During the operation of the proposed scheme, management and maintenance of roadside verges is to be undertaken to maintain and enhance floral diversity. • Appropriate management will be undertaken of existing boundary habitats such as hedgerows or rough edges for the benefit of key farmland species of conservation concern such as yellowhammer (<i>Emberiza citronella</i>), skylark (<i>Alauda arvensis</i>), linnet (<i>Carduelis cannabina</i>), tree sparrow (<i>Passer montanus</i>), meadow pipit (<i>Anthus pratensis</i>) and grey partridge (<i>Perdix perdix</i>).

			<ul style="list-style-type: none"> Replacement roosts will be monitored during the aftercare and operation phase of the road in order to identify further roost requirements.
POLLUTION PREVENTION			
TE23	Throughout Scheme	Construction / Operation	Best practice measures will be implemented to prevent pollution (see mitigation measure W1 in Table 23.3).
SPECIFIC MITIGATION			
TE24	Mixed woodland planting adjoining existing woodland west of M9 Junction 1A	Construction / Operation	Habitat creation to be undertaken using broad-leaved and mixed plantation woodland of native species of local provenance where available.
TE25	M9 Spur Interchange Link to Overton Road (ch1700-2200).	Construction/ Operation	Hedgerow and tree planting will be provided.
TE29	Watercourses	Construction	Generic mitigation measures proposed for water environment (see mitigation measure W1 in Table 23.3) also mitigate impacts on otters.
TE30	Niddry Burn	Construction	If found to be required, a European Protected Species Licence will be obtained to allow for the likely disturbance of otter lying up sites.
TE31	Niddry Burn	Construction / Operation	An artificial otter holt will be provided.
TE34	Swine Burn.	Construction/	Habitat enhancement/creation will be incorporated through the inclusion of meander bends,

	Niddry Burn.	Operation	secondary channels and riparian zones, where appropriate.
TE35	Dewatered watercourses. Swine Burn.	Construction	The translocation of some of the main channel substrate will be undertaken during construction to enable a proportion of the macroinvertebrate assemblage present in the substrate to survive the dewatering process.
TE36	Swine Burn.	Pre-Construction	Fish will be removed from the areas which are required to be dewatered during the construction of culverts, bridges and watercourse realignments and transferred to diverted watercourse (where available) or returned to the existing watercourse either upstream or downstream of the proposed scheme. On reinstatement of any diversion channel, any fish remaining in the diverted watercourse will be returned, in the same way, to the main channel.
TE37	Swine Burn (CH1850)	Construction	Swine Burn will be culverted at ch1850 where the proposed scheme crosses the watercourse. This culvert is to include integral mammal ledges to enable otters to continue to commute along the Swine Burn corridor.
TE42	River Almond. Niddry Burn. Swine Burn. Coastal areas.	Construction	Temporary otter proof fencing will be provided.
TE43	M9 Junction 1A ch300-2700.	Construction	Otter proof fencing will be provided.
TE47	Woodlands	Construction	If native bluebells (LSAP species) are within the woodland areas designated for land take, these will be translocated with necessary permissions and used as “plant plugs” to aid new colonisation in suitable, adjacent woodland.
TE48	Woodlands	Construction	The area of marshy grassland will be avoided, where practicable.

Landscape Mitigation

Mitigation Item	Approximate Chainage/Location	Timing of Measure	Description
GENERIC/BEST PRACTICE			
L1	Throughout scheme	Scheme design / Construction	Earthworks will promote integration of the road with surrounding landform through sensitive grading of cutting and embankment slopes.
L3	Throughout scheme	Scheme design / Construction	SUDS detention basins will be formed to promote integration with the surrounding landscape by sensitive grading, visually discreet boundary fencing and planting of scrub woodland to screen and promote biodiversity.
L4	Throughout scheme	Scheme design / Construction	Noise barriers, as determined by the noise assessment, will be provided in the form of barriers and false cuttings.
L5	Throughout scheme	Scheme design / Construction	Existing trees and vegetation will be retained wherever practicable and incorporated with new planting proposals.
L6	Throughout scheme	Scheme design / Construction	Planting will be undertaken to promote the following: <ul style="list-style-type: none"> • screen views, integrate new cuttings, embankments, junctions and bridges and reflect the character of the existing landscape; • enhance biodiversity and conserve the integrity of existing habitats by planting predominantly native species, of local provenance; • replace lost trees and woodland; • utilise severed field corners and landlocked areas where appropriate; and

			<ul style="list-style-type: none"> enhance the experience for travellers by creating a variety of views.
L7	Throughout scheme	Scheme design / Construction	<p>Grass seeding for verges will be Roadside Verge Mix which is low maintenance, fast establishing and tolerant of traffic and salt spray.</p> <p>Grass seeding for all other soft areas, outwith planting areas, will be Species Rich Grassland Mix consisting of native, non-invasive grasses and wildflower species to reflect locally occurring semi-natural flora.</p>
SPECIFIC MITIGATION – M9 J1A			
<i>NORTH FACING SLOPES M9 J1A</i>			
L42	CH1700-2700 n/b & s/b M9 J1A	Scheme Design / Construction	Species rich grassland will be provided in disturbed soft areas outwith planting.
<i>SOUTH FACING SLOPES</i>			
L43	M9 Spur west embankment, west of Kirkliston	Scheme design / Construction	Mixed woodland planting will be provided to replace lost woodland.
L44	M9 CH1700-2180, M9 J1a	Scheme design / Construction	Scrub woodland planting will be provided to screen and integrate SUDS detention basin and realigned Swine Burn.
L45	M9 CH1700-2180, M9 J1a	Scheme design / Construction	Species rich grassland will be provided in disturbed soft areas outwith planting.
<i>URBAN AREA: KIRKLISTON (M9 Spur s/b to M9 CH980 e/b</i>			
L54	M9 Spur s/b embankment at	Scheme design /	Mixed woodland planting will replace lost woodland.

	northwest edge of Kirkliston	Construction	
L55	M9 ch1250-1480 s/b	Scheme design / Construction	Mixed woodland will be provided to integrate cutting into existing woodland pattern.
L56	M9 ch980-1150 s/b	Scheme design / Construction	Scrub woodland planting will be provided to screen embankment and noise barrier.
L57	M9 Spur s/b to M9 ch1100 e/b	Scheme design / Construction	Species rich grassland will be provided in disturbed soft areas outwith planting.
L58	M9 ch1014-1290 s/b	Scheme design / Construction	Noise barrier will be provided as per mitigation items N12 and N13.
<i>LOWLAND PLAIN: Overton (M9 Ch1300-2780)</i>			
Large Flat Fields			
L59	M9 ch2500-2600 w/b, northeast of Ross's Plantation	Scheme design / Construction	Scrub planting around SUDS detention basin will provide screening and integration.
L60	M9 ch2180-2600 w/b	Scheme design / Construction	Species rich grassland will be provided on embankment and SUDS area outwith planting.
Rising field with existing M9 Junction 1A to the east			
L61	M9 ch1300-1600 w/b	Scheme design / Construction	Mixed woodland planting will integrate cutting into existing woodland pattern.
L62	M9 westbound to	Scheme design /	Scrub woodland will integrate junction.

	M9 Spur northbound link	Construction	
L63	M9 Spur southbound to M9 westbound link, south of M9 ch1680-2180-2150	Scheme design / Construction	Hedgerow will be provided to tie boundary of new slip road into existing field boundaries and reinforce edge of existing woodland on slip road embankment.
L64	M9 ch1300-2180 w/b	Scheme design / Construction	Species rich grassland will be provided in disturbed soft areas outwith planting.
Designed Wooded Landscape: Newliston (M9 CH600-1300)			
L65	M9 ch1200-1300 n/b, east end Lindsay's Craigs woodland.	Scheme design / Construction	Mixed woodland planting at northern SUDS detention basin will be provided to replace lost woodland, provide screening and integrate with Lindsay's Craigs woodland.
L66	M9 ch600-780 M9 ch1100-1150	Scheme design / Construction	Scrub planting on regraded embankments and at southern SUDS detention basin will provide screening and integration.
L67	M9 ch600-1300 n/b	Scheme design / Construction	Species rich grassland will be provided in SUDS basins and disturbed soft areas outwith planting.
Lowland Plain: River Almond (M9 CH0-980 s/b)			
L68	M9 ch600-980 s/b	Scheme design / Construction	Species rich grassland will integrate regraded embankment.
Industrial Area: Newbridge (M9 CH0-600 n/b)			

L69	M9 ch300-550 n/b	Scheme design / Construction	Scrub woodland will replace lost woodland on embankment.
L70	M9 ch0-600 n/b	Scheme design / Construction	Species rich grassland will be provided on regraded embankments outwith planting.

Visual Mitigation

Mitigation Item	Approximate Chainage/Location	Timing of Measure	Description
V1	Throughout Scheme	Scheme Design / Construction / Operation	All landscape mitigation in Table 23.6 will be provided.
V2	Throughout Scheme	Scheme Design / Construction / Operation	Where lighting is essential, all reasonable precautions will be undertaken to reduce energy consumption and avoid/reduce the amount of light pollution of the night sky and rural landscape where this can be achieved safely and effectively.

Noise Mitigation

Mitigation Item	Approximate Chainage/Location	Timing of Measure	Description
N9	Kirkliston M9 (ch1015 - 1260)	Construction / Operation	Noise barrier to achieve residual impact identified in Chapter 16 (Noise and Vibration). It is envisaged that a 2.5m x ~245m barrier will be provided.
N10	Kirkliston M9 (ch1260-1290)	Construction / Operation	Noise barrier to achieve residual impact identified in Chapter 16 (Noise and Vibration). It is envisaged that a 2m x ~30m barrier will be provided.

Air Quality Mitigation

Mitigation Item	Approximate Chainage/Location	Timing of Measure	Description
Construction mitigation covered in Table 23.13			

Cultural Heritage Mitigation

Mitigation Item	Approximate Chainage/Location	Timing of Measure	Description
CH5	Throughout scheme	Pre-Construction	A programme of archaeological trial trenching, set piece excavation and evaluation will be implemented to ensure that the full scope of known and unknown archaeological remains are identified, excavated and fully recorded prior to any proposed construction works. The programme will be confirmed in a Written Scheme of Investigation approved by Historic Scotland and will include a combination of non-intrusive surveys applied to relatively large areas, followed by intrusive techniques targeted on specific areas.
CH9	Dundas Castle Designed Landscape	Pre-Construction	Trial trenching followed by excavation (if required) will be included as part of the programme of archaeological evaluation works.
CH10	Throughout scheme	Construction / Operation	Planting proposed as part of the landscape/ecology mitigation measures (refer to Table 23.6 and Figure 12.4) and noise barriers (refer to Table 23.10) will be provided to reduce impacts on setting.

Vehicle Travellers Mitigation

Mitigation Item	Approximate Chainage/Location	Timing of Measure	Description
VT1	Throughout scheme	Scheme design/ Construction /Operation	All landscape mitigation in Table 23.6 will be provided.

Disruption due to Construction Mitigation

Mitigation Item	Approximate Chainage/Location	Timing of Measure	Description
LAND USE			
DC1	Agricultural land throughout scheme	Pre-construction/ Construction	Appropriate measures will be undertaken to reduce damage or disturbance to field and forestry drainage systems and to the agricultural capability of soils in accordance with mitigation measures LU3 and LU9 in Table 23.1.
DC3	Throughout scheme	Construction	Existing access will be maintained or alternative access provided for all properties during construction in accordance with the requirements of the Bill.
DC4	Throughout scheme	Construction	Suitable signage to businesses and local amenities will be provided.
DC5	Throughout scheme	Construction	Landowners will be notified in advance of construction works in accordance with mitigation measure LU4 in Table 23.1.

DC6	Throughout scheme	Construction	Best practice will be adhered to in order to control dust generation and disposal (refer to mitigation measures DC13-17).
DC7	Throughout scheme	Construction	Screening will be used to reduce the visual intrusion of construction compounds (refer to mitigation measure DC9).
LANDSCAPE/VISUAL			
DC9	Construction compounds	Pre-construction/ Construction	The layouts of construction compounds and storage areas will aim to reduce disruption. Where practicable, existing trees to be retained and screening bunds and planting provided.
DC10	Throughout scheme	Pre-construction/ Construction	Works will be programmed to minimise the disruption period.
DC11	Throughout scheme	Construction	Night-time working will be restricted to essential activities to minimise light pollution.
DC12	Construction compounds	Construction	Dust and noise will be kept to a minimum through the provision of mitigation measures DC13-24.
AIR QUALITY			
DC13	Throughout scheme	Construction	The Contractor will implement the CoCP and employ Best Practicable Means to control dust and air quality pollution.
DC14	Throughout scheme	Construction	The Contractor will implement a Dust and Air Quality Management Plan to limit dust and air pollution from the transportation and storage of materials and to limit emissions from construction plant and vehicles.
DC15	Transport / Haul Routes	Construction	Traffic routing, site access points and hours of operations will be discussed with Fife Council, West Lothian Council and City of Edinburgh Council to reduce potential impacts on local

			receptors.
DC16	Throughout scheme	Construction	A dust and air quality monitoring programme for construction activities will be agreed with the local authorities.
DC17	Throughout scheme	Construction	Blasting works will be avoided where reasonably practicable.
NOISE AND VIBRATION			
DC23	Throughout scheme	Construction	No impact piling will be undertaken at night.
DC25	Throughout scheme	Pre-Construction / Construction	Solid site hoardings will be provided where necessary and reasonably practicable between worksites and noise sensitive receptors to a height sufficient to break line of sight from the windows of habitable rooms to significant construction noise sources.
DC26	Throughout scheme	Pre-Construction / Construction	Mitigation (permanent or temporary) will be installed as early as possible to afford the maximum benefit to the receptor.
PEDESTRIANS, CYCLISTS, EQUESTRIANS AND COMMUNITY EFFECTS			
DC27	Throughout scheme	Pre-Construction / Construction	The construction works will be programmed in such a manner to reduce the length of closures and access restrictions as far as practicable. Any diversion routes must be safe for NMUs and be DDA compliant.
DC28	Throughout scheme	Pre-Construction / Construction	The construction site will be fenced and access by non-authorized personnel will not be permitted.
DC29	Throughout scheme	Construction	Temporary diversion routes will be provided to maintain access for NMUs throughout the works, and any closure or re-routing of routes used by pedestrians and others will be agreed in advance

			with the local authorities and in consultation with Sustrans where applicable
DC30	Throughout scheme	Construction	Where necessary, bus stops will be relocated safely with a safe access route provided for NMUs.
DC31	Throughout scheme	Construction	Best practicable means will be employed to avoid the creation of statutory nuisance associated with noise, dust and air pollution (refer to mitigation measures DC13-24).
DC32	Throughout scheme	Construction	Reasonable precautions will be undertaken to reduce the visual impact of the construction works where practicable (refer to mitigation measures DC9-12).
VEHICLE TRAVELLERS			
DC33	Throughout scheme	Pre-Construction / Construction	Reasonable precautions will be undertaken to avoid/reduce disruption to the road traffic, including consideration of the timing of works vehicles using public roads and delivery/removal of site materials.
DC34	Throughout scheme	Construction	Reasonable precautions will be undertaken to reduce the amount of imported/exported material required.
DC35	Throughout scheme	Construction	Reasonable precautions will be undertaken to avoid/reduce road closures. No lane closures of the M9 are to be permitted during peak hours except in exceptional circumstances that are approved by Transport Scotland.
DC36	Throughout scheme	Construction	Temporary traffic management schemes will take reasonable precautions to reduce disruption and delays.
DC37	Throughout scheme	Construction	Road diversions will be clearly indicated with road markings and signage as appropriate. Closures will be notified in advance and signage provided.
DC38	Throughout	Construction	Appropriate lighting will be provided during night-time working.