

APPENDIX I

Schedule of Environmental Commitments

A75 Hardgrove to Kinmount Improvement

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Mitigation Measure	Effect of Mitigation on Impact	Timing of Mitigation Measure	Monitoring Requirements	Comments
Comprehensive Archaeological Evaluation Programme prior to commencement of works.	<p>The evaluation will be undertaken along the entire length of A75 realignment, and especially in the vicinity of Braehill archaeological consultation zone and Whitecroft Gate.</p> <p>Detection of recorded and unrecorded archaeological sites to ensure avoidance during construction works.</p>	Pre-Construction Phase	None	Archaeological Evaluation Programme to be managed by Historic Scotland
Implementation of various planting strategies, which includes a mix of planting and habitat proposals and combined objectives of landscape and ecological mitigation. The proposals also serve, in part, to enhance existing habitat diversity within the Proposed Scheme corridor.	Net addition of some 0.005 ha of mixed woodland, 2.9 ha of dense scrub, 4020 l/m of roadside hedgerow within the Proposed Scheme and existing A75 corridor. In addition, some 3,200m of newly established roadside verge would be seeded with a species rich grassland mix with semi-natural characteristics. The wildflower content of the mix would be of local provenance where possible.	During and Post Construction Phase	Requirement for periodic checks on the health and vigour of the planting	Consultation with SNH will be undertaken to confirm the correct planting mix. The establishment of the habitat creation will be monitored throughout the fifteen year design period for the scheme.
Aim to avoid bird-breeding season. Where this is not possible, works will be preceded by a check by a suitably qualified ornithologist to ensure that no active nests would be affected. Should active nests be found, works in the immediate vicinity of the nest would be postponed until the young birds have fledged.	Applicable only when bird-breeding season cannot be avoided and in the areas where vegetation clearance is required.	Pre- and during Construction Phase	None	Once the contractor is identified the construction programme will be checked to minimise the risk.

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In order to minimise collisions between barn owls and vehicles, new broad-leaved hedgerows will be planted along the verges of the Proposed Scheme wherever possible and as close to the carriageway as possible.	The hedgerows will be planted with native species of local provenance where possible and will be maintained at least 2-3 m tall through cutting in accordance with Ramsden (undated). The hedgerows will encourage barn owls to fly higher whilst crossing the road thereby reducing the likelihood of collisions.	Implemented as part of construction	Maintenance of the hedgerows should form part of the maintenance programme.	The final design will be confirmed with the contractor. This will require specific contractor commitments within their contractual terms.
The installation of badger/otter-proof fencing along with 5 underpasses.	As described in the confidential Appendix G3, mammal underpasses will be installed at five locations along the Proposed Scheme in accordance with the recommendations contained in Volume 10, Section 4, Parts 2 and 4 of the DMRB. In total five kilometres of Badger-proof fencing will be installed 250 m either side of the underpasses on both sides of the carriageway. Within 100 m of four of the underpasses (i.e. the four associated with watercourses), the fencing will also include modifications to make it otter-proof	Construction Phase	Regular check of the fencing would be required. Maintenance is considered minimal though. The otter runs will be required to be checked to make sure culverts remain cleared and free of blockages.	The detailed design will be confirmed with the contractor. This will require specific contractor commitments within their contractual terms.
A number of landscape and visual mitigation commitments will be implemented.	<ul style="list-style-type: none"> - The introduction of low mounding between the new section of trunk road and the newly nominated local road. - The extension and relaxation of embankment slopes where the proposed new trunk road would cross over the U81a. There is some available space between the line of the old road and new road to modify the essential engineering landform, 	Construction Phase	Requirements of periodic checks on the success and vigour of the planting.	Consultation with SNH will be undertaken to affirm the correct planting mix. The establishment of the habitat creation will be monitored throughout the fifteen-year design period for the scheme.

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	<p>soften slopes and establish a combination of dense woodland planting and scrub edge. This would achieve a balance between mass planting, which would soften and enclose the earthworks supporting the road, whilst avoiding over enclosure for users of the approach road to the underpass.</p> <ul style="list-style-type: none"> - Relaxation of cutting slopes and extension embankment slopes where space permits to the west and east of the central U81a underpass. - Rounding of the crest of cutting and embankment slopes. - Introduction of hedgerows where verge widths preclude the use of denser planting to define the corridor and tie into existing hedgerows which would be severed by the new alignment. - Planting of dense woodland edge species where the new alignment would encroach into the northern edge of Braemoss Wood. - Reinforcement of existing planting at the modified western junction providing access to Carrutherstown. - Use of native tree and shrub species of local provenance throughout and of grassland species with semi-natural characteristics to enhance local landscape character and contribute to local 			

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	<p>biodiversity.</p> <p>- Incorporation of landscape design objectives to enhance the appearance and natural interest associated with the proposed balancing ponds whilst maintaining their prime function to regulate flows and minimise pollution discharge.</p>			
The introduction of balancing ponds to regulate discharge flows to the local watercourses.	The ponds will include reed beds, which would be introduced as part of a strategy to minimise pollutant discharge to receiving watercourses. Simple interceptors would also be provided which would provide a further safeguard against accidental spillage notwithstanding the low risk identified during the assessment.	Pre- and during Construction Phase	The integrity and functioning of the systems will be checked on a regular basis.	Maintenance and management of the proposed drainage system and future maintenance works for the Proposed Scheme which would involve working in proximity to watercourses would be subject to SEPA's Pollution Prevention Guidelines (PPG)
Implementation of a construction environmental management plan (cEMP).	<p>Site-wide and beyond. To ensure compliance with environmental legislation, reduce and minimise environmental impacts and facilitate continual improvement.</p> <p>The cEMP will document procedures such as restrictions on constructions worker's access to environmentally sensitive areas, emergency spillage response procedures, air emissions, protection of local wildlife etc, and minimisation of dust and vehicle emissions.</p>	Pre and during Construction Phase	Requirement to ensure contractor, and their acting agent, upholds the cEMP. This will require careful and continued monitoring by Transport Scotland's Representative.	<p>cEMP to operate through construction period only.</p> <p>Management of the construction phase in accordance with Scottish Executive, Scottish Natural Heritage, Scottish Environment Protection Agency and Historic Scotland.</p> <p>This will require specific contractor commitment within their contract terms.</p>

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Air Quality Mitigation	<ul style="list-style-type: none"> -The daily use of a road sweeper on paved areas effected, and the use of water spraying on unpaved access routes: - Using wheel washers when required for vehicles leaving the site - Sheeting of all vehicles carrying material prone to being blown - Containment of storage areas for materials prone to being wind blown - enforcement of low speed limits on unmade surfaces - Temporary seeding of soils stockpiles where storage timescales permit - Seeding of completed earthworks as soon as is reasonably practicable; and - Cessation of relevant works during periods of high wind 	Construction Phase	Contained within the cEMP	<p>Relevant to the pre-construction and construction phases as controlled through the cEMP.</p> <p>This will require specific contractor commitment within their contract terms.</p>
Requirement for dust monitoring	Dust monitoring will be undertaken before, and during construction at representative sensitive receptors within 100 m of the working areas.	Pre and during Construction Phase	Contained within the cEMP	<p>Relevant to the pre-construction and construction phases as controlled through the cEMP.</p> <p>This will require specific contractor commitment within contract terms.</p>

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Implementation of a noise management plan in accordance with BS 5228 Part 2.	<p>Specific measures would include:</p> <ul style="list-style-type: none"> - vehicles and equipment will be fitted with effective exhaust silencers, maintained in good working order and operated to minimise noise emissions in accordance with BS 5228 - compressors will be fitted with properly lined and sealed acoustic enclosures where environmental noise disturbance may arise and these will be kept closed whenever the machines are in use - pneumatic percussive tools will be fitted with mufflers or silencers in accordance with the manufacturer's recommendations - machines in intermittent use will be shut down in the intervening periods between work or throttled down to a minimum (including HGVs waiting to access the site on the highway) - where practicable, all plant-works will conform to the noise limits presented in the EC Noise Emission in the Environment by Equipment for use Outdoors Directive 2000/14/EC; and - noise monitoring will be undertaken by the Contractor in proximity to Oakbank and two representative receptors at Carrutherstown to ensure the levels stipulated in the noise management plan are adhered to. 	Construction Phase	Contained within the cEMP	<p>Relevant to the pre-construction and construction phase as controlled through the cEMP.</p> <p>The noise mitigation plan will be agreed with the Regional Council's Environmental Health Officer.</p> <p>This will require specific contractor commitment within their contractual terms.</p>

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Adoption of SEPA's Pollution Prevention Guidelines to include specific recommendations in the relation to working in proximity to watercourses, the management of waste water associated with construction and the storage, handling and incorporation of potentially polluting materials.	The measures will also ensure that all site staff are fully conversant with the guidelines and their application by the way of toolbox talks prior to commencing works of a potentially sensitive nature. Specific measures would include; <ul style="list-style-type: none"> - bunded fuel storage areas - working distance constraints relating to sensitive locations; - refuelling guidelines; - the provision of temporary silt traps; - temporary drainage and settlement ponds; and - vehicle standing areas 	Construction Phase	Contained within the cEMP	Relevant to the pre-construction and construction phases as controlled through the cEMP. This will require specific contractor commitment within their contract terms.
Production of a species protection plan	The contractor will be required to prepare a species protection plan as an integral part of the cEMP.	Pre-Construction Phase	Contained within the cEMP	Relevant to the pre-construction and construction phases as controlled through the cEMP.
Identification of summer or late flowering species	Should the pre-construction validation surveys along the existing A75 identify summer or late summer flowering species of regional or higher value and the areas will not be subject to modification as part of the Proposed Scheme, such areas will be recorded and temporarily fenced during the works to prevent inadvertent encroachment.	Pre and during Construction Phase	Contained within the cEMP	Relevant to the pre-construction and construction phases as controlled through the cEMP.

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The effective implementation of badger fencing	The contractor will be required to demonstrate how temporary fencing or the early installation of permanent protective fencing will be used to prevent encroachment of legally protected badgers into the working areas. There will be a requirement that the contractor demonstrates how these measures would provide for continued movement of the species across the construction corridor pending the installation of permanent mammal crossings.	Pre and during Construction Phase	Contained within the cEMP	Relevant to the pre-construction and construction phases as controlled through the cEMP. This will require specific contractor commitment within their contract terms.
Prevention of risk of deep excavations	Areas of deep excavation, which may constitute potential traps for legally protected otters and badgers or other mammals species inadvertently entering such temporary features, will be covered and/or sloping exits will be provided to prevent wildlife being trapped during periods of construction inactivity, particularly overnight.	Pre and during Construction Phase	Contained within the cEMP	Relevant to the pre-construction and construction phases as controlled through the cEMP.
Checking of pipes and culverts	Any pipes and culverts exposed during construction would be capped and checked at the end of each working day to prevent mammal species from being trapped	Construction Phase	Contained within the cEMP	Relevant to the pre-construction and construction phases as controlled through the cEMP.
Requirement to retain temporary access for the properties which currently have direct access onto the existing A75 and for users of the U81a throughout the	This will include Fostermeadow access from the B725; the link from Whitecroftgate to Carrytherstown; the Hardgrove underpass and the U81a realignment; the Stenries link road between proposed A75 section and the existing A75.	Construction Phase	Regular maintenance required.	Relevant to the pre-construction and construction phases as controlled through the cEMP. This will require specific contractor commitment within

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construction period	This will provide safer access to local properties. Where accessibility may be disrupted and severance may occur during construction.			their contract terms.
Retention of trees	Where existing trees are to be retained within or near to the working areas, the contractor will be required to evaluate the risk to them in light of the required construction operations and apply the principles of BS 5837: Trees in Relation to Construction	Construction Phase	Contained within the cEMP	Relevant to the pre-construction and construction phases as controlled through the cEMP.
Reuse of generated spoil on-site (and topsoil stripping for landscape purposes where feasible). Any additional soils will be sourced locally.	Line of new A75 alignment, especially earthworks to create Hardgrove underpass. Reuse of local spoil and topsoil in general construction and landscaping will negate the need for disposal and importation respectively.	Construction Phase	None	On-site storage, where necessary, will be adequately protected from the elements and will not be stored for prolonged periods.
Management of Japanese Knotweed (an invasive species identified under the Wildlife and Countryside Act 1981) to prevent contamination of site and ensure correct disposal.	Colony of Japanese Knotweed in Braemoss Wood will be managed to ensure that there is no risk further spread of this plant and in line with responsibilities for off-site disposal.	Pre, during and post Construction Phase	Further maintenance will be required to keep the knotweed in suitable size and in the correct area it has been placed in.	Best practice guidelines will be adhered to.