Appendix 2.2

Strategic Environmental Assessment (SEA) Monitoring Framework

Contents

Tables

Appendix 2.2 – Strategic Environmental Assessment (SEA) Monitoring Framework

Table 2.2.1: SEA monitoring framework – A9 Dualling, Project 9, Crubenmore to Kincraig

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – Central					**Project 9 – Crubenmore to Kincraig**	
SEA References: SEA Environmental Report (ER) – Section 5, ER Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Sections D1 and E1 (note, Section E1 is noted as from Newtonmore to Kingussie; however it should read Newtonmore to Kinveachy) – Appendix C (Revised Geographical Information System (GIS) Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (Habitats Regulations Appraisal (HRA) and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment (SFRA)						
SEA Identified Constraints	**Description of Constraint**	**SEA Comment**	**Recommendations for later DMRB Stages**		**Record how addressed at:**	
			DMRB2	**DMRB3**	**DMRB Stage 2**	**DMRB Stage 3**
Ramsar Sites	River Spey - Insh Marshes Ramsar	Refer to ER Addendum Appendix E – HRA and Programme-level Appropriate Assessment Report Embed range of strategic principles on biodiversity and avoidance of Ramsar/ SPA/ SSSI site boundaries and impacts where possible In combination, the River Spey-Insh Marshes sites are afforded the highest possible levels of environmental conservation designations and protection, extending to bird species, fish and freshwater pearl mussels, otter, various plant species and the wetland habitats that support such important biodiversity Key issues for consideration in this Design Project include: • avoidance of designated site boundaries wherever possible; • possible encroachment into designated site boundaries, including dualling alignment options, junctions and watercourse crossing options and any related impacts on species and habitats; • demonstration of, and SNH agreement on, suitable engineering	DMRB2 options design should aim to minimise dualling footprint/ encroachment within designated site boundaries Secure early consultation with SNH to agree project level HRA Screening requirements for alignment, junctions, drainage and watercourse crossing options across the River Spey-Insh Marshes area Consultation with SNH to inform selection of preferred options and acceptable engineering solutions at pinch points, approx. refs.: Braes of Nuide, NN718977 to NN726982 Ruthven Bridge, NN757994 to NN762999 River Spey and HML crossings at Kingussie, NH763001 to NH766009 Between Kingussie and Lynchat, NH770016 to NH778018 Mains of Balavil to tie in with Kincraig-Dalraddy scheme, NH790022 to NH820043 River Spey is geomorphologically active on the Kingussie side of the crossing and eroding the river bank towards the A9 embankment	Project level HRA/ AA must be completed and agreed with SNH in advance of DMRB3 Environmental Statement finalisation to inform final preferred alignment design Any encroachment on the River Spey-Insh Marshes designations will require project level HRA/ AA to demonstrate no adverse effects on site integrity for qualifying features and species To include means to address any encroachment into site boundaries, watercourse crossings, potential run-off, pollution and sedimentation, hydrological and flooding risks, effects on qualifying species and habitats and river geomorphology, with mitigation, management plans and exclusion zones/ timescales for qualifying species Will have to demonstrate effective consideration of ecological and hydrological connectivity between priority wetland habitats as well as habitat management and restoration plans DMRB3 EIA/ HRA will need to consider effects on qualifying bird	Project 9 mainline alignment and junction options were developed to avoid encroachment into designated site boundaries wherever possible. Unavoidable areas include crossings of the River Spey and its tributaries, and potential outfall locations for indicative SuDS features. Options for the River Spey crossing at Kingussie were discussed during workshops and regularly monthly Environmental Steering Group (ESG) meetings, to seek feedback on early design options, including river morphology, SuDS, flood modelling and construction techniques. Local consultation events also presented options to the public. RSPB breeding wader data was used to inform the DMRB2 assessment.	Small amount of encroachment into the River Spey – Insh Marshes SPA and Insh Marshes SAC, primarily at the River Spey crossing. DMRB Stage 3 EIA and HRA have informed design development to minimise potential impacts and to identify required mitigation measures. For example, mammal ledges within selected culverts along with additional dry mammal tunnels have been included in the design to improve multi species permeability. Impact on habitats has been considered and through the design process, refinements were made to reduce impacts on sensitive habitat e.g. alder woodland. DMRB Stage 3 includes an updated and revised HRA which further considers potential effects on Natura site qualifying features and conservation objectives, including consideration of crossings, SuDS and outfalls associated with mainline, junction and connector routes. Construction stage control measures have been identified to minimise impacts on SAC and SPA qualifying
Special Protection Area (SPA)	River Spey - Insh Marshes SPA					
Site of Special Scientific Interest (SSSI)	River Spey - Insh Marshes SSSI					

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		solutions where designated site boundaries are unavoidable; • inclusion of suitable drainage and SuDS features, including consideration of impacts on drainage into designated sites and connected watercourses, to the satisfaction of SEPA and SNH; • consideration of habitat impacts, including protected wetlands and Groundwater Dependent Terrestrial Ecosystems (GWDTE); • opportunities to incorporate wildlife crossings; • disturbance issues during sensitive bird and otter seasons; • effective consideration of cumulative impacts within the site boundaries; • landscape and visual impacts in a sensitive marshland area; • consideration of active river geomorphology and flooding issues, including watercourse crossings and any potential for SuDS features within the functional floodplain/ designated site boundaries; • provision of laybys and stopping places within the design solution Project level Habitats Regulations Appraisal and Appropriate Assessment will be required Separate consideration of SSSI features and consents will be required	SEPA must be included in discussion on SuDS requirements, flood risk implications and CAR requirements SNH consultation to include consideration of drainage and SuDS requirements to address risks to designated habitats and potential effects on river geomorphology GWDTE surveys will be required to inform DMRB3 HRA/ AA, drainage strategy, Environmental Statement and any habitat management and restoration plans Consultation with SNH, SEPA, RSPB and CNPA required to agree more detailed local survey requirements/ further studies and assessment to determine habitat/ species impacts and agree effective mitigation and compensation measures for any unavoidable impacts on designated features and habitats, to inform the approach to more detailed Appropriate Assessment, as required to support DMRB3 detailed design and Environmental Statement Project level HRA will require detailed survey and assessment for habitats and species around the Kingussie crossing, consider river geomorphology and engineering options available to minimise risks of adverse effects to site integrity	species/ important life cycle seasons to advise construction scheduling to minimise risks from noise/ disturbance and determine effective project level mitigation (in addition to pollution/ water quality, etc.) Consultation with SNH, SEPA, Cairngorms National Park Authority, RSPB and other relevant stakeholders required Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation, restoration or compensatory works required to the satisfaction of SNH, SEPA, RSPB and Cairngorms National Park Authority Environmental Statement will require separate consideration of SSSI features and consents required	NVC surveys were carried out to inform Annex 1 / GWDTE assessments. Otter and protected species surveys were carried out in accordance with survey scopes agreed with the ESG. SNH were consulted separately on DMRB2 HRA which presented detail on areas of encroachment and likely significant effects for each of the Natura site designations noted. DMRB2 HRA determined that No Adverse Effects on Site Integrity would result. ESG feedback was received on the Environmental Assessment Report (EAR) through DMRB Stage 2 environmental consultation.	species and habitats, and a Species Protection Plan (SPP) and Habitat Management Plan (HMP) have been created to minimise impacts in the longer term. HRA for the SAC identified a likely significant effect (LSE) for alder woodland, clear water lakes/ lochs and otter, however with the mitigation measures identified, no adverse effect on site integrity (AESI) was concluded. HRA for the SPA identified LSE for all qualifying species, however with the implementation of mitigation measures such as considered timing of works and visual screening, no AESI was concluded. There is a small amount of encroachment into the River Spey – Insh Marshes Ramsar and SSSI, primarily at the River Spey crossing. The DMRB Stage 3 EIA process has continued to inform the design to further reduce potential impacts. The EIA identifies potential impacts of the final design and specifies required mitigation measures. The distribution of breeding features associated with the River Spey – Insh Marshes Ramsar has been assessed using a combination of RSPB breeding and WeBS Data collected from within the RSPB Insh Marshes reserve, and

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Special Area of Conservation (SAC)	Insh Marshes SAC	Refer to ER Addendum Appendix E – HRA and Programme-level Appropriate Assessment Report Embed range of strategic principles on biodiversity and avoidance of SAC site boundaries and impacts where possible The Insh Marshes SAC site boundaries are encapsulated within the River Spey-Insh Marshes Ramsar boundaries	River Spey-Insh Marshes Ramsar/ SPA guidance noted above applies HRA Screening will need to specifically address each of the qualifying interest features of the Insh Marshes SAC Discuss and agree suitable approach with SNH as Insh Marshes SAC qualifying interest features may differ from those under the Ramsar and SPA designations	River Spey-Insh Marshes Ramsar/ SPA guidance noted above applies Project level HRA/ AA will need to specifically address each of the qualifying interest features of the Insh Marshes SAC, as distinct from the features designated under the Ramsar and SPA designations		CFJV Breeding bird data and vantage point survey data. On the basis of scale, temporary nature of construction works and potential impacts in proximity to an existing trunk road, the Environmental Statement concluded that, with mitigation, there would be no significant damage to the River Spey Insh Marshes Ramsar site and SSSI or their notified features.
National Nature Reserve (NNR)	Insh Marshes NNR	The Insh Marshes NNR site boundaries are encapsulated within the River Spey-Insh Marshes Ramsar boundaries The NNR is managed by RSPB, who should be consulted in conjunction with SNH on any works in the vicinity that may affect the NNR area	River Spey-Insh Marshes Ramsar/ SPA guidance noted above applies Embed range of strategic principles on biodiversity and avoidance of NNR site boundaries and impacts where possible Consultation with SNH on HRA Screening approach and alternative dualling, junction, drainage and crossing options should include RSPB	River Spey-Insh Marshes Ramsar/ SPA guidance noted above applies Preferred options design, Environmental Statement and Project level HRA/ AA will need to include RSPB as a key consultee, including their local advice on habitat and species impacts, mitigation and compensation works requirements	Insh Marshes NNR boundary extends beyond the Ramsar boundary. RSPB were consulted on developing options throughout the DMRB2 process and their feedback on the different sensitivities in the Ruthven North and Ruthven South compartments either side of the A9 embankment approach to the River Spey crossing informed the DMRB2 assessment	There is encroachment into the NNR at Ruthven and Lynchat along with a small amount of encroachment at Balavil. The Proposed Scheme includes the creation of a minimum of 20 ha of optimal breeding wader habitat within Dellmore of Kingussie through a combination of hydrological and vegetation management. DMRB Stage 3 EIA process has informed the design to reduce the potential impacts of the final design and specifies the required mitigation measures.

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Special Area of Conservation (SAC)	River Spey SAC	Refer to ER Addendum Appendix E – HRA and Programme-level Appropriate Assessment Report The River Spey SAC extends beyond the River Spey-Insh Marshes Ramsar boundaries Any crossings of the River Spey SAC, or encroachment upon the SAC boundaries, will require consideration via project level Habitats Regulations Appraisal (HRA) Drainage/ SuDS outfalls to the River Spey SAC, and its tributaries are also likely to require consideration via project level HRA Likely to require protected species and habitat survey for salmon/ lamprey spawning and fresh water pearl mussel beds, as well as otter Project level HRA/AA will need to demonstrate that it is possible to avoid adverse effects on site integrity Should include consultation with SEPA and Spey Fisheries Board on drainage, SuDS and CAR aspects – the River Truim is a designated part of the River Spey SAC so gravel/ shingle beds may be spawning sites In addition to the Ramsar notes above, the current A9 crosses the River Spey SAC at: Bridge of Inverton/ Drumnanoich, NN743988 Mains of Balavil, NH789021	Embed range of strategic principles on biodiversity and avoidance of SAC/ SSSI site boundaries and impacts where possible Secure early consultation with SNH to agree project level HRA Screening requirements for drainage to/ possible encroachment on the River Spey SAC Consultation with SNH to determine alternative alignment, junction, drainage and crossing option impacts on River Spey designations, to inform selection of the preferred options SNH consultation to advise requirements for surveys and mitigation for qualifying interest species and means to address pollution/ sedimentation risks and effects on river geomorphology, to inform the approach to more detailed Appropriate Assessment, as required to support DMRB3 detailed design and Environmental Statement SEPA should be included in discussion on levels of SuDS treatment, CAR requirements, flood risk implications and opportunities to improve provisions for fish passage Spey Fisheries Board should be included in terms of protected species/ spawning beds, etc.	Project level HRA/ AA must be completed and agreed with SNH in advance of DMRB3 Environmental Statement finalisation to inform final preferred alignment design To include means to address potential run-off, pollution and sedimentation/ hydrological risks/ effects on river geomorphology, with mitigation, management plans and exclusion zones/ timescales for qualifying species In the event that encroachment is absolutely unavoidable at detailed design stage, consultation with SNH is required as early as possible to determine effective mitigation and/ or compensation measures to avoid adverse effects on site integrity Preferred option design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required Environmental Statement will require separate consideration of SSSI designation and any consents required	As above for River Spey-Insh Marshes designations, plus: Spey District Fisheries Board were also consulted to discuss the potential impacts on fish habitats and seasonal sensitivities. Deep water freshwater pearl mussel surveys were undertaken at the Spey Crossing.	DMRB Stage 3 has provided a revised HRA which further considered the potential effects on Natura site qualifying features and conservation objectives, including consideration of crossings, SuDS and outfalls associated with mainline, junction and connector routes. Qualifying features of the SAC and notified features of the SSSI have been considered through the DMRB Stage 3 design process, and design changes have been made to reduce the encroachment of earthworks into ecological features. Mitigation for construction in proximity to the River Spey SAC and SSSI includes pollution prevention controls and programme recommendations to minimise ecological impacts, such as the programming of temporary in channel works to minimise disturbance to migratory fish (including Atlantic Salmon – Oct to June and Sea Lamprey – June and July). The River Spey SSSI is not assessed in the EIA as it underlies the River Spey SAC and has the same qualifying features. As the River Spey has the highest conservation status (i.e. internationally important site), the qualifying features are assessed under the SAC. HRA for the SAC has identified a likely significant effect (LSE) for all qualifying species, however with the mitigation
Site of Special Scientific Interest (SSSI)	River Spey SSSI					

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						measures identified, no adverse effect on site integrity (AESI) was concluded.
Ancient Woodland (of semi-natural origin)	c. 9x AWI (SNO) (Category 1a and 2a)	4x AWI sites potentially affected south of the Kingussie crossing and 5x north of Kingussie crossing Embed range of strategic principles on biodiversity, woodland and avoidance where possible However, as AWI woodlands border both sides of the A9 in this section, secondary aim must be to minimise losses and fragmentation where woodlands are unavoidable SNH advise that categories 1a, 2a and 3 of Ancient Woodland (AW) are irreplaceable; however, category 2b may be of lower conservation value	Secure early consultation with SNH and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to determine alternative alignment option impacts on all AWI woodlands, to inform selection of the preferred dualling alignment Determine potential requirements for additional surveys and studies where AWI woodlands are unavoidable and where compensation may be required Consider mechanisms to provide compensatory habitat solutions that will deliver an equal or greater amount of habitat to the standard of that which is lost Ancient Woodland Inventory mapping should be supplemented with Native Woodland Survey of Scotland (NWSS) data	Preferred alignment *design* and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required Where AWI woods are unavoidable, aim to minimise fragmentation and maintain woodland integrity Cumulative woodland impact to include woodland edge effects Where habitat compensation is not achievable in situ, Environmental Statement should identify where compensation will be delivered	At DMRB Stage 2, Project 9 mainline alignment and junction options were developed to avoid encroachment into areas of Ancient Woodland wherever possible. Designs were also reviewed and adjusted to minimise AW encroachment in unavoidable areas. DMRB2 also included a review of the AW baseline against NWSS and National Forest Inventory to identify where the AW baseline was out of date (i.e. to identify any AW dataset areas that were no longer wooded).	The AWI (Ancient Woodland Inventory) has been reviewed in line with the Proposed Scheme to determine potential impacts and specify required mitigation measures. SNH have been consulted via the A9 Environmental Steering Group (ESG). Through design refinement, impact on AWI has been altered to minimise the loss and fragmentation as far as possible, and mitigation has been identified and proposed to minimise impacts at the construction stage. Cumulative impacts have been considered in Chapter 20 of the ES. A Habitat Management Plan (HMP) has been created which specifies further mitigation for AWI, and areas of Lost Ancient Woodland have been defined for compensatory planting.
Historic Environment including Unscheduled Archaeology	Scheduled Monuments and Listed Buildings identified by SEA are discussed below	Unscheduled archaeology was outwith the scope of route-wide SEA studies and should be considered at an early stage in consultation with Historic Scotland and the relevant Local Authority archaeology teams CNPA also have an interest in non-designated historic features and gardens within the Park boundaries	Secure early consultation with Historic Scotland, CNPA and Local Authority archaeology or heritage team and obtain historic environment records to determine the location of any locally important sites and features Route alignment studies to be informed by consultations to avoid such sites in the first instance, and to determine scope of further studies where avoidance is not possible	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation required for unscheduled archaeology	DMRB2 assessment identified areas of archaeological potential around Nuide, Drumnanoich, Inverton, Knappach, Kingussie and Lynchat; and in areas of the conjectured line of General Wade's Military Road Archaeological geophysical surveys were undertaken at Raitts Cave, Chapelpark and Balavil	Non-designated cultural heritage assets have been assessed as part of DMRB Stage 3. Walkover surveys were undertaken by AB Heritage in August 2015 and settings assessment surveys were undertaken by CFJV in November 2017 and March 2018. Geophysical surveys were undertaken at Raitts Cave (Asset 9.28), Balavil Obelisk & Burial Ground (Asset 9.42) and Chapelpark (Asset 9.41) and trial trenching was undertaken within the

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					Overall, the surveys suggested a lack of evidence for significant archaeology at Balavil Obelisk and Burial Ground and Chapelpark. At Raitts Cave a higher potential for archaeological features was identified.	vicinity of Raitts Cave (Asset 9.28) to ascertain the presence or absence of archaeological remains within the Proposed Scheme and to identify if any remains were associated with the Scheduled Monument. The evaluation at Raitts Cave involved a geophysical survey followed by the excavation of six evaluation trenches. Well preserved archaeological features were identified in two of the trenches, with possible evidence of less well-preserved remains in another trench.
Scheduled Monuments (SM)	Ruthven Barracks NN764997	SM and LB designations on the same feature Embed range of strategic principles on historic environment and avoidance where possible Unlikely to be directly affected by A9 dualling; however, likely to have to be included as a sensitive visual receptor and assessed for impact on setting – requires discussion with Historic Scotland	Secure early consultation with Historic Scotland and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to determine alternative alignment and crossing option impacts on this heritage feature, to inform selection of the preferred options Seek agreement on additional studies required for DMRB Stage 3 assessment of visual impact/ impact on setting	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation required	No DMRB Stage 2 options developed for Project 9 will directly affect this heritage asset. Potential visual impacts on the setting of the asset were identified, and outline recommendations for mitigation were presented.	Setting assessments were undertaken in advance in line with *Historic Environment Scotland's Managing change in the Historic Environment: Setting* (2016) on the Ruthven Barracks and Raitts Cave souterrain. The DMRB Stage 3 EIA process has, through consultation with Historic Environment Scotland (HES), identified potential impacts of the Proposed Scheme and has specified mitigation including sensitive design and photographic surveys.
Listed Building (LB) (Cat A)	Ruthven Barracks LB 339620 and Stables LB 339621					
Listed Building (LB) (Cat B)	Balavil, Obelisk and Burial Ground LB 332348 NH787020	This group of LB are unlikely to be directly affected by A9 dualling; however, they are likely to have to be included as sensitive visual receptors and assessed for impact on setting – requires discussion with Historic Scotland Embed range of strategic principles on historic environment and avoidance where possible Balavil Obelisk and	Secure early consultation with Historic Scotland and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to determine alternative alignment option impacts on these heritage features, to inform selection of the preferred option	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation required	No DMRB Stage 2 options developed for Project 9 will directly affect these heritage assets. Potential impacts on the setting of the asset were identified, and outline recommendations for mitigation were presented.	Settings assessments were undertaken in advance in line with *Historic Environment Scotland's Managing change in the Historic Environment: Setting* (2016). Pre-construction mitigation is proposed for Balavil Obelisk and Burial Ground, Balavil Mains and Steading, Balavil House, Balavil House West Lodge and Gate Piers and Balavil House East
Listed Building (LB) (Cat B)	Balavil Mains and Steading LB 332347 NH789022					

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Listed Building (LB) (Cat B)	Balavil House LB 332345 NH791026	Burial Ground lies within Ancient Woodland and is within the 200 m wide corridor Balavil Mains and Steading is within the 200m wide corridor Belleville House, East Lodge lies within Ancient Woodland and is within the 200m wide corridor Kincraig, Former Meadowside Hospital is within the 200m wide corridor, with Ancient Woodland between the A9 and the LB Other LBs noted are outwith the 200m wide corridor but may have to be considered for visual impact/ impact on setting	Seek agreement on additional studies required for DMRB Stage 3 assessment of visual impact/ impact on setting			Lodge involved Historic Building Recording (Basic). No mitigation is proposed for Kincraig, former Meadowside Hospital.
Listed Building (LB) (Cat C(S))	Balavil House, West Lodge And Gate Piers LB 332378 NH788020					
Listed Building (LB) (Cat C(S))	Balavil House, East Lodge LB 332377 NH796026					
Listed Building (LB) (Cat B)	Kincraig, Former Meadowside Hospital LB 337985 NH809036					
National Scenic Areas (NSA)	The Cairngorm Mountains NSA	Refer to A9 Strategic Landscape Review (ER Addendum Appendix F) The 200m wide A9 dualling corridor does not encroach into the NSA site boundary, therefore no direct effects anticipated The NSA will likely have to be treated as a sensitive visual receptor for landscape and visual impacts assessment Within the Park boundaries, CNPA are likely to lead on NSA issues	Embed strategic landscape principles and secure early consultation with CNPA to discuss landscape issues related to NSA special qualities, and determine their recommendations and requirements to inform the selection of a preferred alignment Seek opportunities to incorporate key views to enhance visitors' experience of this NSA, including potential for enhanced laybys and interpretation features Agree range of visual receptors with CNPA for detailed Landscape and Visual Impact Assessment (LVIA) at next stage	DMRB3 LVIA to inform design to integrate the road with its surroundings and minimise the impacts of road furniture Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken, assessment of landscape and visual impacts, appropriate mitigation measures and any construction stage monitoring required, to the satisfaction of CNPA	CNPA were consulted regularly through the DMRB Stage 2 options development and assessment process, including via the A9 ESG and Landscape Forum. Landscape Assessment included consideration of the Special Landscape Qualities of the National Park, which includes the NSA, as well as providing cross-sections for each developed option	The LVIA has informed the design to integrate the road with the surrounding environment and minimise its impacts, e.g. with embankments modified to integrate with existing natural topography to reflect the adjacent landform. Consultation with SNH and CNPA has been undertaken during design development, both programme-wide and specific to Project 9. The use of relevant desk studies, site assessments and the monitoring required have been detailed.

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			DMRB2	**DMRB3**	**DMRB Stage 2**	**DMRB Stage 3**
					Landscape and Visual receptors considered in Stage 2 assessment were acceptable to CNPA.	NSA issues and sensitivities have been considered and assessed throughout Stage 3 design development and EIA.
Cairngorms National Park (CNP)	This entire section lies within the CNP boundaries	Cairngorms National Park Authority (CNPA) have a duty to promote and enhance the natural and/ or cultural heritage via any developments within the Park boundaries (ref. National Park Aim 1) Key issues noted above for avoidance of designated site boundaries and impacts are likely to take precedence; however, CNPA will require effective consideration of non-designated natural heritage sites, protected species, geodiversity, NMU, access, layby and landscape/ visual issues within this sensitive corridor section	Ensure early and ongoing consultation with CNPA on the full range of design and environmental issues and options to secure their advice and agreement on preferred options Will require detailed consultation to work with CNPA to determine their requirements for additional studies on landscape/ visual effects assessments and mitigation to inform DMRB3	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensation works required	CNPA were consulted regularly through the DMRB Stage 2 options development and assessment process, including via the A9 ESG and Landscape Forum. Approach to Landscape Assessment tailored to include consideration of the Special Landscape Qualities of the CNP, as well as providing cross-sections for each developed option. Landscape and Visual receptors considered in Stage 2 assessment were all acceptable to CNPA, as was the ecological survey rationale agreed via the A9 ESG.	Consultation with CNPA has continued throughout the DMRB Stage 3 process via the Environmental Steering Group (ESG). Representative visual receptors were agreed for assessment, the Special Landscape Qualities of the CNP were considered, earthworks slope, SuDS and structures design aesthetic and planting mitigation have all been taken into account at DMRB Stage 3 to avoid and minimise adverse landscape and visual effects where possible.
Peat Soils	Two key areas identified with peaty soils Approx. refs.: NN692954 to NN694961 NN721976 to NN728982	Peaty soils present at start of section near tie in with Crubenmore dual carriageway and around Braes of Nuide Embed strategic principles approach to avoid losses of peat soils where possible SNH and SEPA will also require demonstration that Groundwater Dependent Terrestrial Ecosystems (GWDTE) have been identified/ surveyed and assessed with effective	Secure early consultation with SEPA and SNH to determine alternative alignment option impacts on peat soils, to inform selection of the preferred dualling alignment and to determine requirements for additional surveys and studies to inform peat habitat management and restoration plans Should also include consultation on presence of, and further requirements	Preferred alignment design and Environmental Statement to include appropriate record of consultation, further peat or GWDTE studies undertaken, any mitigation or compensatory works required, and an agreed peat habitat management and restoration plan in accordance with applicable guidance	Information presented in Stage 2 options assessment was primarily based on James Hutton Institute (JHI) information or limited ecological survey sample probing. Feedback received from SNH/ SEPA/ CNPA on peat information requirements is	Peat and GWDTE issues have been considered and assessed through DMRB Stage 3 design development and EIA, following earlier programme-level consultation with SEPA, SNH and CNPA. Peat surveys were conducted, which included probing and coring, as well as visual surveys to consider potential stability risks, for the project and the surrounding areas.

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		mitigation/ compensation/ restoration plans, with reference to current guidance	on, Groundwater Dependent Terrestrial Ecosystems (GWDTE)		noted for inclusion with DMRB Stage 3 EIA. Commissioned DMRB Stage 2 Ground Investigations included a suite of peat probing to improve information available for DMRB Stage 3. Potential GWDTE areas were also considered via NVC habitat survey and mapping analyses to identify areas for further consideration.	Peaty soil and peat depth maps were created and used to inform the design development process and environmental assessment. Changes throughout the design development process combined with the consideration of alternatives has minimised peat and GWDTE disturbance where possible. Outline Peat Management Plan produced detailing best practice measures to further avoid or minimise potential impacts, including excavation procedures, temporary works activities, temporary storage, transportation, handling, re-instatement and potential peat re-uses.
SEPA 1:200 year Flood Zone	Existing route crosses Flood Zone at various locations	Refer to ER Addendum Appendix G (Strategic Flood Risk Assessment) Embed strategic principles approach to avoid encroachment in the flood zone Any loss of functional flood plain will require compensatory storage Key flood risk zones to south of and surrounding Kingussie crossing, along the River Spey and tributaries Milton Burn/ Burn of Inverton (part of River Spey SAC, approx. ref.: NN734984 to NN744988 A9 crossing of Milton Burn/ Burn of Inverton could be contributing to upstream flooding, may require investigation to determine mitigation/ improvement opportunities	Alignment studies should aim to strike a balance between avoidance of other constraints and the 1:200 year flood zone Secure early consultation with SEPA to determine alternative alignment and crossing option impacts and to determine requirements for flood risk assessment, SUDS drainage and CAR requirements Watercourse crossing options will require effective consideration of river geomorphology effects, potential for A9 embankment protection works and potential effects on Ramsar/ SAC/ SPA/ SSSI/ NNR designated sites features, habitats and species Consider where drainage designs can include improved wildlife crossing and	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required Incorporate appropriate drainage, compensatory storage and management measures to ensure no net change to flood risk Make recommendations to avoid works compounds within the functional floodplain where possible	At DMRB Stage 2, Project 9 mainline alignment and junction options and associated earthworks were developed to avoid and minimise encroachment upon the 200 year functional floodplain; however, it was not completely avoidable. Flood plain issues were a particularly significant consideration in the development and assessment of River Spey crossing options at Kingussie. River Spey morphology and detailed consideration of effects on up/ downstream	Hydrological and hydraulic modelling has been carried out to predict flood water levels, assess flood impacts, and provide an estimate of compensatory flood storage requirements. In addition to a desk-based study, a range of published reports, site walkovers and a Detailed Catchment Baseline Survey, have been used to inform the design throughout DMRB Stage 3. DMRB Stage 3 flood modelling was used to minimise loss of functional floodplain (construction and operational phases), with design refinement influencing the location of associated infrastructure outwith the flood zone where possible. Other items that aim to minimise impacts on the water environment, include upsizing of culverts for watercourse crossings to

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		South of Kingussie crossing to Insh Marshes, approx. ref.: NN752990 to NH765008 SEPA have identified the River Spey crossing and flooding at Kingussie as a major issues, may require detailed flood risk modelling to determine optimum dualling/ crossing solutions North of Kingussie crossing, the road rises above the flood plain (Insh Marshes), with one Flood Zone crossing at Raitts Burn (Balavil) Around Balavil at Raitts Burn (part of River Spey SAC) crossing, approx. ref.: NH788021 to NH789021	fish passage opportunities to secure multi-species benefit		receptors informed the Stage 2 assessment. A very detailed flood model was developed to cover the Project 9 extent from Invertruim to Kinrara gauging stations.	reduce the risk of blockages and integration of compensatory storage areas by creation of functional floodplain. Input from consultation forums including the Environmental Steering Group (ESG) and Spey Fisheries Board (SFB) were considered throughout the design process.
Highland Main Line (HML)	One HML crossing identified at approx. ref. NH765008	Mainly an engineering constraint; however, likely to affect scale and location of dualling earthworks required for a new crossing HML runs parallel to the A9 from the start of this section at the Crubenmore dual carriageway to the Raliabeag area, and from the crossing at Kingussie to the end of this section at the tie in with the Kincraig to Dalraddy section	Secure early consultation with relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to determine alternative alignment option impacts on HML crossing and inform selection of the preferred dualling alignment Consider opportunities to provide wildlife crossing opportunities to secure multi-species benefit	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required	At DMRB Stage 2, Project 9 mainline alignment and junction options and associated earthworks were developed to avoid encroachment upon the HML; however, the HML crossing at Kingussie was incorporated into mainline and junction designs. HML included as a receptor in DMRB Stage 2 Visual assessment chapter as recommended.	DMRB Stage 3 has been designed to avoid encroachment upon the HML railway. Some allowance has been made for potential HML future upgrades, through e.g. increased span and headroom on the proposed replacement Glentruim Rail Bridge. The HML was identified as a sensitive receptor during flood risk assessment. Impacts were assessed as follows: 2 lengths with 'negligible impact' (<+/- 10 mm). 1 length where the 200-year flood risk level is decreased by 50 to 100 mm. HML users have been included as key visual receptors in assessment, design development and mitigation. Appropriate planting to the SuDS basins along with replacement woodland where possible will provide

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						some screening of views from the HML to the A9 and associated infrastructure.
Non-Motorised Users (NMU)	NCN7 and Cairngorms National Park Core Paths within this section	Refer to ER Addendum Section 4.3 Refer to and embed strategic principles approach to NMU and cycling provisions CNPA is the access authority within the Park boundaries NCN7 and Core Path runs parallel to A9 from approx. ref.: NN691949 to crossings at NN756993 (Ruthven Cottage) NN760997 (Ruthven Bridge) NH764005 (Spey crossing at Kingussie) Non-motorised user (NMU) access may be impacted during construction and existing crossing points may be rationalised to provide safer crossing opportunities NMUs to include pedestrians, cyclists and equestrians	CNPA and Sustrans likely to require assurance that any effects on NCN7 and Core Paths will be compensated within dualling works Secure early consultation with relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to determine alternative alignment option impacts on NCN7, Core Paths, and any other identified NMU routes and crossings, to inform selection of the preferred dualling alignment Consider opportunities to provide wildlife crossing opportunities to secure multi-species benefit and to link NCN7 to enhanced layby facilities Selection of preferred alignment to be informed by an 'access audit', as required by Chapter 6 of Transport Scotland's 'Roads for All: Good Practice Guidance for Roads' and a 'cycle audit', as required by Chapter 11 (see Fig. 11.1) of Transport Scotland's 'Cycling by Design' good practice guidance	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required to ensure an equal or better standard of provision than existing. DMRB3 EIA to include construction mitigation requirements on provision of appropriate diversionary routes and signage to maintain overall access provisions during construction.	Consultation ongoing via A9 ESG and Access forums. Potential impacts considered via DMRB Stage 2 assessments on Community & Private Assets and Effects on All Travellers. Route-wide access strategy and project specific access studies also ongoing to consider implications in advance of Stage 3, in cognisance of the 'audit' requirements noted.	During construction, NMU routes will be temporarily affected. Phasing of the works, including temporary diversions will reduce the effects on NMU routes where possible. At-grade crossings have been removed and 6 underpasses have been incorporated into the design, allowing the NMUs to safely cross the A9 and access the surrounding NMU routes. Consultation and engagement with stakeholders has been carried out through a series of workshops and forums centred around non-motorised users and accessibility. Organisations consulted have included SNH, CNPA, People Friendly Design and Mobility and Access Community for Scotland (MACS). Consultation with local roads department and public transport provider, has also taken place throughout the DMRB Stage 3 process.
Wildlife Crossings	The existing A9 is considered to act as a barrier to species movement However, the location of any wildlife crossing	Embed the principle of 'multi-species benefits through route permeability' across all design sections	Identification and implementation of wildlife crossing provisions should be embedded within the consideration of drainage, watercourse crossings, NMU routes, junctions and other road and rail crossing opportunities	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies and surveys undertaken and any mitigation, compensatory or improvement works required to deliver a suitable range of wildlife	However, species surveys have been undertaken (in line with rationale agreed via A9 ESG), as well as reviews of Deer Vehicle Collision data, and morphological baseline surveys on watercourses to	Wildlife crossings have been integrated and assessed via ecological input to Stage 3 design development and EIA. These include mammal ledges in selected culverts above the 1 in 50-year flood level, dry culverts, and multi-species underpasses.

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	opportunities was outwith the scope of the SEA		Secure early consultation with CNPA and SNH on appropriate species and habitat survey requirements	(e.g. mammals and fish) crossings and passes	inform ecological inputs to Stage 3 design. Opportunities to improve permeability through the route have been identified and will be considered further through DMRB Stage 3.	Wildlife crossings have been included in the design at approximately 1.5 km spacing where possible.