A9 Dualling Programme

Strategic Environmental Assessment (SEA)

Post Adoption SEA Statement

Appendix B – Monitoring Framework Design Section Constraints Tables

September 2014

Table B.1 SEA Monitoring Framework – Design Section Constraints – Tay Crossing to Ballinluig

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – South			**Design Project – Tay Crossing to Ballinluig (approx. 9km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Section B1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
SEA Identified Constraints	**Description of Constraint**	**SEA Comment**	**Recommendations for later DMRB Stages**		**Record how addressed at:**	
			DMRB Stage 2	**DMRB Stage 3**	**DMRB Stage 2**	**DMRB Stage 3**
Special Area of Conservation (SAC)	River Tay SAC Approx. crossing refs.: NO004438 NN000481 NN993498	Refer to ER Addendum Appendix E, HRA and Programme-level Appropriate Assessment (AA) Report Embed range of strategic principles on biodiversity, and avoidance of SAC site boundaries and impacts wherever possible Any crossings of the River Tay SAC, or encroachment upon the SAC boundaries, will require consideration via project level Habitats Regulations Appraisal (HRA) Drainage/ SuDS outfalls to the River Tay SAC, and its tributaries are also likely to require consideration via project level HRA Should include consultation with SEPA and Tay Fisheries Board on drainage, SuDS and CAR aspects Refer to SNH's River Tay SAC advice to developers at: http://www.snh.org.uk/pdfs/publications/designatedareas/River%20Tay%20SAC.pdf	Secure early consultation with SNH and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to agree project level HRA Screening requirements for crossings of, and drainage to, the River Tay SAC Consultation with SNH to determine alternative alignment option impacts on River Tay designations, to inform selection of the preferred dualling alignment 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 and opportunities to improve crossings for fish passage (eg. flood risk implications) Tay 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 Stage 3 Environmental Statement finalisation to inform final preferred alignment design To include means to address potential spillage, run-off, pollution and sedimentation/ hydrological risks/ effects on river geomorphology, with mitigation, management plans and exclusion zones/ timescales for qualifying species Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required		
Special Area of Conservation (SAC)	Shingle Islands SAC	Refer to ER Addendum Appendix E, HRA and Programme-level Appropriate Assessment (AA) Report Multiple site designation, generally within or alongside the boundaries of the River Tay SAC Shingle Islands SAC/ SSSI is unlikely to be directly affected by the dualling works footprint, but could potentially be affected in terms of construction site runoff and pollution controls as well as road drainage/ SuDS outfalls	Embed range of strategic principles on biodiversity, and avoidance of SAC site boundaries and impacts wherever possible Confirm with SNH that this SAC is not affected directly by alternative alignment options Confirm with SNH whether DMRB3 requires inclusion of Shingle Islands SAC in project level HRA	DMRB3 EIA and HRA may have to include this SAC in terms of drainage design/ SuDS outfalls and construction level pollution controls SNH may require confirmation that SuDS treatment solutions and construction level mitigation is sufficient to ensure no Adverse Effect on Site Integrity due to A9 dualling Stage 3 reports may also require separate consideration of impacts on, and mitigation for the SSSI designation, including any SSSI consents required		
Site of Special Scientific Interest (SSSI)	Shingle Islands SSSI					
Special Protection Area (SPA)	Forest of Clunie SPA	Refer to ER Addendum Appendix E, HRA and Programme-level Appropriate Assessment (AA) Report No direct impact anticipated as this site is likely to be outwith the extent of dualling works; however, as the SPA is protected for bird species, potential for disturbance may have to be considered	Embed range of strategic principles on biodiversity, and avoidance of SPA site boundaries and impacts wherever possible where possible Secure early consultation with SNH to determine whether this SPA should be included in DMRB3 stage HRA	DMRB3 EIA and HRA may have to include this SPA in terms of the potential for disturbance to, and any necessary exclusion zones for, bird species Seek SNH advice on appropriate measures if HRA is required		
Ancient Woodland of semi-natural origin AW (SNO)	c. 7 x AWI (SNO) (Category 1a & 2a)	A mixture of AWI woodlands lie to both sides of the existing A9 in this section Embed range of strategic principles on biodiversity, woodland and avoidance where possible However, as much of this section is bordered by AWI woodlands on both sides, 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		
Ancient Woodland other/On Roy Map AW (Roy)	c. 2x AWI (Roy) (Category 3)					
Ancient Woodland Long established of plantation origin AW (LEPO)	c. 3 x AWI (LEPO) (Category 2b)					
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 Should include consideration of non-designated historic parks and gardens	Secure early consultation with Historic Scotland, 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		
Scheduled Monuments (SM)	Clachan More, two standing stones, Dowally NO000479	Particular historic environment pinch point at Dowally Need to balance SM and LB issues with River Tay SAC, flood plain and Ancient Woodland (SNO, 1a and 2a) constraints Aim to avoid direct impacts on SM and LBs, and maximise clearance between heritage features and dualling works Adjustment in dualling alignments should aim to balance avoidance of heritage features and other constraints, and to minimise effects on setting, wherever possible	Embed range of strategic principles on historic environment and avoidance where possible Where avoidance is not possible within the 200m online corridor, DMRB2 alignment studies should consider local alternatives outwith the 200m corridor Secure early consultation with Historic Scotland, Local Authority archaeology or heritage team and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group), to present local options and determine their requirements/ recommendations for additional studies/ surveys to inform selection of a preferred alignment 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, assessment of impacts on features and their setting, appropriate mitigation measures and any construction stage monitoring required, to the satisfaction of Historic Scotland		
Listed Building LB (Cat B)	Dowally, St Anne's Church And Churchyard LB 337059					
Listed Building LB (Cat C(S))	2, Dowally Village LB 337060					
	3, 4, Dowally Village LB 337061					

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – South			**Design Project – Tay Crossing to Ballinluig (approx. 9km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Section B1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
SEA Identified Constraints	**Description of Constraint**	**SEA Comment**	**Recommendations for later DMRB Stages**		**Record how addressed at:**	
			DMRB Stage 2	**DMRB Stage 3**	**DMRB Stage 2**	**DMRB Stage 3**
Scheduled Monuments (SM)	Kindallachan, cairn NN995497	Particular historic environment pinch point at Kindallachan Embed range of strategic principles on historic environment and avoidance where possible Need to balance SM issues with railway, River Tay SAC, flood plain and Ancient Woodland (SNO, 1a) constraints Aim to avoid direct impacts on SMs and maximise clearance between heritage features and dualling works Adjustment in dualling alignments should aim to balance avoidance of heritage features and other constraints, and to minimise effects on setting, wherever possible	Where avoidance is not possible within the 200m online corridor, DMRB2 alignment studies should consider local alternatives outwith the 200m corridor Secure early consultation with Historic Scotland, Local Authority archaeology or heritage team and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group), to present local options and determine their requirements/ recommendations for additional studies/ surveys to inform selection of a preferred alignment Embed strategic principles approach to avoid where possible, and discuss Scheduled Monument consent requirements with Historic Scotland should these features prove unavoidable 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, assessment of impacts on features and their setting, appropriate mitigation measures and any construction stage monitoring required, to the satisfaction of Historic Scotland		
Scheduled Monuments (SM)	Kindallachan, standing stone NN994499					
Scheduled Monuments (SM)	Westhaugh of Tulliemet, cross slab NN988510	Particular historic environment pinch point at Haugh Cottages Embed range of strategic principles on historic environment and avoidance where possible Need to balance SM and LB issues with railway, River Tay SAC, flood plain and Ancient Woodland (LEPO 2b on opposite side of carriageway) constraints Aim to avoid direct impacts on SM and LB, and maximise clearance between heritage features and dualling works Adjustment in dualling alignments should aim to balance avoidance of heritage features and other constraints, and to minimise effects on setting, wherever possible	Secure early consultation with Historic Scotland, Local Authority archaeology or heritage team and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group), to present local options and determine their requirements/ recommendations for additional studies/ surveys to inform selection of a preferred alignment Embed strategic principles approach to avoid where possible, and discuss Scheduled Monument consent requirements with Historic Scotland should these features prove unavoidable Secure early consultation with SNH on Ancient Woodland LEPO class 2b to opposite side of carriageway as dualling to that side may be one option 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, assessment of impacts on features and their setting, appropriate mitigation or compensation measures and any construction stage monitoring required, to the satisfaction of Historic Scotland and other relevant stakeholders		
Listed Building LB (Cat B)	Haugh Cottages, Cross LB 344453					
Listed Building LB (Cat B)	Guay Farmhouse LB 337062	Particular historic environment pinch point at Guay Farm Embed range of strategic principles on historic environment and avoidance where possible Need to balance LB issues with railway, River Tay SAC and flood plain constraints to the opposite (western) side of the carriageway Ancient Woodland (SNO, 1a) identified on eastern side of carriageway Where avoidance is not possible within the 200m online corridor, DMRB2 alignment studies should consider local alternatives outwith the 200m corridor	Secure early consultation with Historic Scotland, Local Authority archaeology or heritage team and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group), to present local options and determine their requirements/ recommendations for additional studies/ surveys to inform selection of a preferred alignment 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, assessment of impacts on features and their setting, appropriate mitigation or compensation measures and any construction stage monitoring required, to the satisfaction of Historic Scotland and other relevant stakeholders		
National Scenic Areas (NSA)	River Tay (Dunkeld) NSA	Southern stretch of this section runs through River Tay (Dunkeld) NSA Potential for direct impact on the NSA throughout this area Refer to A9 Strategic Landscape Review (ER Addendum Appendix F) and secure early consultation with SNH to discuss landscape issues related to NSA special qualities Aim to minimise impacts on woodland within the NSA Consider opportunities for enhanced laybys and viewpoints in consultation with SNH	Embed strategic landscape principles and secure early consultation with SNH to discuss DMRB2 alignment options 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 SNH for detailed Landscape and Visual Impact Assessment (LVIA) at next stage	Stage 3 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 SNH		
SEPA 1:200 year Flood Zone	Existing route crosses Flood Zone at various points in this section, given the proximity to the River Tay and its tributaries	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 Preference would be to avoid encroachment in the flood zone; however, this stretch is bordered by the River Tay flood zone to the west side of the road and is unlikely to be avoided at all locations	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 option impacts and to determine requirements for flood risk assessment, SUDS drainage and CAR requirements Consider where drainage designs can include improved wildlife crossing and fish passage opportunities	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		
Highland Mainline (HML)	No HML crossings in this section	HML is a significant physical constraint, running in proximity to west of the A9 between Guay and Kindallachan Presents a significant constraint to dualling around a number of heritage features discussed above	Secure early consultation with Historic Scotland to present local alignment options showing HML constraints between Guay and Kindallachan	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required		

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – South			**Design Project – Tay Crossing to Ballinluig (approx. 9km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Section B1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
SEA Identified Constraints	**Description of Constraint**	**SEA Comment**	**Recommendations for later DMRB Stages**		**Record how addressed at:**	
			DMRB Stage 2	**DMRB Stage 3**	**DMRB Stage 2**	**DMRB Stage 3**
Non-Motorised Users (NMU)	NCN77 and Perth & Kinross Council Core Paths within this section Approx. crossing refs.: NO004439 NN999487 NN997491 NN991506 NN990507 NN988511 NN987513	Refer to ER Addendum Section 4.3 Various Core Paths and the NCN77 run in proximity and/ or parallel to the A9 in this section Refer to and embed strategic principles approach to NMU and cycling provisions NMUs to include pedestrians, cyclists and equestrians Non-motorised user (NMU) access may be impacted during construction and existing crossing points may be rationalised to provide safer crossing opportunities	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 NCN77, 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 NCN77 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		
Wildlife Crossings	The existing A9 is considered to act as a barrier to species movement However, the location of any wildlife crossing opportunities was outwith the scope of the SEA	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 Secure early consultation with SNH on appropriate species and habitat survey requirements	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 (eg. mammals and fish) crossings and passes		

Table B.2 SEA Monitoring Framework – Design Section Constraints – Pitlochry to Killiecrankie

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – South			**Design Project – Pitlochry to Killiecrankie (approx. 6km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Section B1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
Special Area of Conservation (SAC)	River Tay SAC Approx. crossing refs.: NN951566 NN928585	Refer to ER Addendum Appendix E, HRA and Programme-level Appropriate Assessment (AA) Report Embed range of strategic principles on biodiversity, and avoidance of SAC site boundaries and impacts wherever possible Any crossings of the River Tay SAC, or encroachment upon the SAC boundaries, will require consideration via project level Habitats Regulations Appraisal (HRA) Drainage/ SuDS outfalls to the River Tay SAC, and its tributaries are also likely to require consideration via project level HRA Should include consultation with SEPA and Tay Fisheries Board on drainage, SuDS and CAR aspects Refer to SNH's River Tay SAC advice to developers at: http://www.snh.org.uk/pdfs/publications/designatedareas/River%20Tay%20SAC.pdf	Secure early consultation with SNH and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to agree project level HRA Screening requirements for crossings of, and drainage to, the River Tay SAC Consultation with SNH to determine alternative alignment option impacts on River Tay designations, to inform selection of the preferred dualling alignment 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 and opportunities to improve crossings for fish passage (eg. flood risk implications) Tay 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 Stage 3 Environmental Statement finalisation to inform final preferred alignment design To include means to address potential spillage, run-off, pollution and sedimentation/ hydrological risks/ effects on river geomorphology, with mitigation, management plans and exclusion zones/ timescales for qualifying species Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required		
Other natural heritage designations	No other Natura, SSSI, NNR, GCR sites identified within this stretch	No other designated sites noted; however early consultation with SNH and SEPA required in terms of wetlands, priority habitats and protected species issues				
Ancient Woodland (of semi-natural origin)	3 x AWI (SNO) (Category 1a & 2a)	A mixture of AWI woodlands lie to both sides of the existing A9 in this section Embed range of strategic principles on biodiversity, woodland and avoidance where possible However, as much of this section is bordered by AWI woodlands on both sides, 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		
Ancient Woodland (Long established of plantation origin)	4 x AWI (LEPO) (Category 2b)					
Historic Environment including Unscheduled Archaeology	No Scheduled Monuments or Inventory Gardens and Designed Landscapes identified by SEA	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 Should include consideration of non-designated historic parks and gardens	Secure early consultation with Historic Scotland, Local Authority archaeology or heritage teams 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		
Listed Building (Cat B)	A number of listed buildings present in the vicinity of Dunfallandy,, Fonab and Pitlochry	All are outwith the likely extent of dualling works Embed range of strategic principles on historic environment and avoidance where possible	Secure early consultation with Historic Scotland, Local Authority archaeology or heritage teams and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group), to present local options and determine their requirements/ recommendations for additional studies/ surveys to inform selection of a preferred alignment 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, assessment of impacts on features and their setting, appropriate mitigation or compensation measures and any construction stage monitoring required, to the satisfaction of Historic Scotland and other relevant stakeholders		
Listed Building (Cat C(S))						
Listed Building (Cat C(S))	Moulin, Atholl Road, Craigeach LB 394949	Within 100m of the current transition between single/ dual carriageways Unlikely to be directly affected by dualling as sits to the opposite side of the Highland Mainline				
National Scenic Areas (NSA)	Loch Tummel NSA	Section enters Loch Tummel NSA, north of Faskally, on the approach to Killiecrankie Potential for direct impact on the NSA throughout this area Refer to A9 Strategic Landscape Review (ER Addendum Appendix F) and secure early consultation with SNH to discuss landscape issues related to NSA special qualities Aim to minimise impacts on woodland within the NSA Consider opportunities for enhanced laybys and viewpoints in consultation with SNH and CNPA	Embed strategic landscape principles and secure early consultation with SNH and CNPA to discuss DMRB2 alignment options 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 SNH for detailed Landscape and Visual Impact Assessment (LVIA) at next stage	Stage 3 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 SNH and CNPA		
Cairngorms National Park (CNP)	National Park is outwith the extents of this scheme	Cairngorms National Park Authority should be consulted on landscape and visual issues as the CNP could be considered as a sensitive visual receptor	Secure early consultation with SNH and CNPA to determine whether the National Park should be considered as a sensitive visual receptor for this scheme	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation works required		
Agricultural Soils	Productive agricultural soils present around the A9 between Pitlochry and Killiecrankie	Embed strategic principles approach to avoid disturbance of productive agricultural land where possible	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 productive agricultural soils, to inform selection of the preferred dualling alignment Likely to require consideration of accesses to productive land	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any accommodation, mitigation or compensatory works required		

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – South			**Design Project – Pitlochry to Killiecrankie (approx. 6km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Section B1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
SEPA 1:200 year Flood Zone	Existing route crosses Flood Zone at various points in this section, given the proximity to the River Tay and its tributaries	Refer to ER Addendum Appendix G (Strategic Flood Risk Assessment) Any loss of functional flood plain will require compensatory storage Embed strategic principles approach to avoid encroachment in the flood zone; however, this stretch is bordered by the River Tay flood zone to the west side of the road and is unlikely to be avoided at all locations	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 option impacts and to determine requirements for flood risk assessment, SUDS drainage and CAR requirements Consider where drainage designs can include improved wildlife crossing and fish passage opportunities	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		
Highland Mainline (HML)	Two HML crossings identified at approx. refs.: NN921595 NN955565	Mainly an engineering constraint; however, likely to affect scale and location of dualling earthworks required for new crossings, and therefore, scale of impact on local features, including Ancient Woodland	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		
Non-Motorised Users (NMU)	NCN7 and Perth and Kinross Council Core Paths within this section Approx. crossing refs.: NN945568 NN939574 NN929579 NN928585 NN927586 NN927588	Refer to ER Addendum Section 4.3 Various Core Paths and the NCN7 run in proximity and/ or parallel to the A9 in this section Refer to and embed strategic principles approach to NMU and cycling provisions CNPA is the access authority within the Park boundaries NMUs to include pedestrians, cyclists and equestrians Non-motorised user (NMU) access may be impacted during construction and existing crossing points may be rationalised to provide safer crossing opportunities	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		
Wildlife Crossings	The existing A9 is considered to act as a barrier to species movement However, the location of any wildlife crossing opportunities was outwith the scope of the SEA	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 Secure early consultation with SNH on appropriate species and habitat survey requirements	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 (eg. mammals and fish) crossings and passes		

Table B.3 SEA Monitoring Framework – Design Section Constraints – Killiecrankie to Pitagowan

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – South			**Design Project – Killiecrankie to Pitagowan (approx. 10.5km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Section B1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
Special Area of Conservation (SAC)	River Tay SAC Approx. crossing refs.: NN891642 NN848653 NN845656 NN836656 NN825657	Refer to ER Addendum Appendix E, HRA and Programme-level Appropriate Assessment (AA) Report Embed range of strategic principles on biodiversity, and avoidance of SAC site boundaries and impacts wherever possible Any crossings of the River Tay SAC, or encroachment upon the SAC boundaries, will require consideration via project level Habitats Regulations Appraisal (HRA) Drainage/ SuDS outfalls to the River Tay SAC, and its tributaries are also likely to require consideration via project level HRA Should include consultation with SEPA and Tay Fisheries Board on drainage, SuDS and CAR aspects Refer to SNH's River Tay SAC advice to developers at: http://www.snh.org.uk/pdfs/publications/designatedareas/River%20Tay%20SAC.pdf	Secure early consultation with SNH and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to agree project level HRA Screening requirements for crossings of, and drainage to, the River Tay SAC Consultation with SNH to determine alternative alignment option impacts on River Tay designations, to inform selection of the preferred dualling alignment 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 and opportunities to improve crossings for fish passage (eg. flood risk implications) Tay 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 Stage 3 Environmental Statement finalisation to inform final preferred alignment design To include means to address potential spillage, run-off, pollution and sedimentation/ hydrological risks/ effects on river geomorphology, with mitigation, management plans and exclusion zones/ timescales for qualifying species Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required		
Special Area of Conservation (SAC)	Tulach Hill and Glen Fender Meadows SAC	Refer to ER Addendum Appendix E, HRA and Programme-level Appropriate Assessment (AA) Report 200m wide corridor encroaches on site boundary at approx. ref.: NN870647 and between NN859651 and NN852651 Embed range of strategic principles on biodiversity and avoiding land take from designated sites where possible	Secure early consultation with SNH and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to agree project level HRA Screening requirements for the Tulach Hill SAC Consultation with SNH to determine alternative alignment option impacts on Tulach Hill designations, to inform selection of the preferred dualling alignment Avoidance of site boundary removes risk of direct impact; however, consult with SNH on risks to sensitive species, eg. disturbance or pollution risks	Project level HRA/ AA must be completed and agreed with SNH in advance of Stage 3 Environmental Statement finalisation to inform final preferred alignment design Stage 3 reports will also require separate consideration of impacts on, and mitigation for the SSSI designation, including any SSSI consents required Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required		
Site of Special Scientific Interest (SSSI)	Tulach Hill SSSI					
Site of Special Scientific Interest (SSSI)	Aldclune and Inverack Meadows SSSI	Multiple site designation Current A9 crosses site in vicinity of Aldclune junction, approx. ref.: NN891642 – next to the River Garry (River Tay SAC) crossing SNH have highlighted access issue concerns as existing access at approx. ref.: NN839657 may be closed Given its proximity to the road in a number of locations, there is potential for direct losses of SSSI habitat SNH are likely to consider any losses of SSSI habitat as significant adverse effects on the Aldclune and Inverack Meadows SSSI sites	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 these SSSI site locations, to inform selection of the preferred dualling alignment Determine potential requirements for additional studies and surveys related to SuDS and drainage into the SSSI, the avoidance and minimisation of habitat impacts, and guidance on SSSI consents, alternative access arrangements and mitigation or compensation works requirements Embed range of strategic principles on biodiversity, and avoiding land take from designated sites and consider opportunities to provide wildlife crossing opportunities to secure multi-species benefit where possible	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required Where habitat compensation is not achievable in situ, Environmental Statement should identify where compensation will be delivered Stage 3 reports will also require separate consideration of impacts on, and mitigation for the SSSI designation, including any SSSI consents required		
Site of Special Scientific Interest (SSSI)	Pass of Killiecrankie SSSI	Upland oak woodland SSSI runs alongside existing Pass of Killiecrankie dual carriageway, into and along the length of the Killiecrankie Battlefield site Embed the strategic principles approach to avoid encroachment into the SSSI site boundaries No direct losses of SSSI woodland are anticipated; however, should the site prove unavoidable, SNH are likely to consider any losses of SSSI habitat as significant adverse effects on the Pass of Killiecrankie SSSI site	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 this SSSI site, to inform selection of the preferred dualling alignment Determine potential requirements for additional studies and surveys related to SuDS and drainage into the SSSI, the avoidance and minimisation of habitat impacts, guidance on SSSI consents and mitigation or compensation works requirements Embed range of strategic principles on biodiversity, and avoiding land take from designated sites and consider opportunities to provide wildlife crossing opportunities to secure multi-species benefit where possible	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required Where habitat compensation is not achievable in situ, Environmental Statement should identify where compensation will be delivered Stage 3 reports will also require separate consideration of impacts on, and mitigation for the SSSI designation, including any SSSI consents required		
Ancient Woodland (of semi-natural origin)	c. 10x AWI (SNO) (Category 1a & 2a)	A mixture of AWI woodlands lie to both sides of the existing A9 in this section Embed range of strategic principles on biodiversity, woodland and avoidance where possible However, as much of this section is bordered by AWI woodlands on both sides, 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		
Ancient Woodland (Long established of plantation origin)	1x AWI (LEPO) (Category 1b) Wood ID: 17941 Approx. ref.: NN868651 to NN860653 (between A9 and Blair Atholl)					

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – South			**Design Project – Killiecrankie to Pitagowan (approx. 10.5km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Section B1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
Historic Environment including Unscheduled Archaeology	Scheduled Monuments, Listed Buildings and Inventory Gardens and Designed Landscapes 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		
Scheduled Monuments (SM)	Old Faskally Farm, church Approx. ref.: NN918631	This SM lies outwith the 200m wide corridor – no direct impact expected; however, may have to be included in terms of visual impact on historic sites/ receptors/ setting Embed range of strategic principles on historic environment and avoidance where possible	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 this heritage feature, to inform selection of the preferred dualling alignment Seek agreement on whether or not additional studies are 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		
Scheduled Monuments (SM)	Clach na h'Iobairt, standing stone 300m E of Pitagowan Approx. ref.: NN876652	This SM lies within the 200m wide corridor and may be directly affected by dualling Dualling alignment will be informed by location of a new River Garry (River Tay SAC) crossing at approx. ref.: NN825657 Need to balance SM issues with River Tay SAC and flood plain constraints Embed range of strategic principles on historic environment and avoidance where possible Aim to avoid direct impacts on SM and maximise clearance between heritage features and dualling works	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 this heritage feature, to inform selection of the preferred dualling alignment Where avoidance is not possible within the 200m online corridor, DMRB2 alignment studies should consider local alternatives outwith the 200m corridor Embed strategic principles approach to avoid where possible, and discuss Scheduled Monument consent requirements with Historic Scotland should this feature prove unavoidable	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken, assessment of impacts on features and their setting, appropriate mitigation measures and any construction stage monitoring required, to the satisfaction of Historic Scotland		
Battlefields	Killiecrankie Battlefield	Site extends from existing Pass of Killiecrankie dual carriageway to Aldclune junction at the River Garry (River Tay SAC) crossing Existing A9 single carriageway dissects the battlefield site All dualling alignment and junction options within the battlefield site require detailed engagement with Historic Scotland, Local Authority archaeology team, CNPA, SNH and other relevant stakeholders Embed range of strategic principles on historic environment, landscape and avoidance where possible	Secure early consultation with Historic Scotland, CNPA and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to determine alternative alignment option impacts on the battlefield site, to inform selection of the preferred dualling alignment Will also require detailed engagement on junction options, unscheduled archaeology and potential mitigation and compensation measures Also Ancient Woodland issues within the battlefield site – embed strategic principles approach to avoid where possible Also requires detailed consideration of drainage and SuDS provisions within the overall footprint Seek early agreement on additional studies/ investigations required for DMRB Stage 3, including assessment of landscape and visual impacts, impact on setting and battlefield interpretation	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken, assessment of impacts on battlefield features, their setting and interpretation, appropriate mitigation measures and any construction stage monitoring required, to the satisfaction of Historic Scotland, CNPA and other relevant stakeholders		
Listed Building (Cat B)	Shierglas Farmhouse LB 337556	Particular historic environment pinch point at Shierglas Farm/ Steading/ Quarry, approx. ref.: NN884642 Need to balance LB issues with River Tay SAC and flood plain constraints to the opposite (northern) side of the carriageway	Embed range of strategic principles on historic environment and avoidance where possible Where avoidance is not possible within the 200m online corridor, DMRB2 alignment studies should consider local alternatives outwith the 200m corridor Secure early consultation with Historic Scotland, Local Authority heritage team and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group), to present local options and determine their recommendations to inform selection of a preferred alignment	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken, assessment of impacts on features and their setting, appropriate mitigation or compensation measures and any construction stage monitoring required, to the satisfaction of Historic Scotland and other relevant stakeholders		
Listed Building (Cat C(S))	Shierglas Steading LB 337557					
Listed Building (Cat C(S))	Allt Essan, Tollhouse LB 351660	Located in Ancient Woodland within 100m of existing transition between single/ dual carriageways on entrance to Killiecrankie Battlefield, approx. ref.: NN918623 Embed range of strategic principles on historic environment and avoidance where possible Unlikely to be directly affected by dualling, and likely to be screened by existing woodland	Secure early consultation with Historic Scotland, Local Authority heritage team and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group), to present local alignment options and determine their recommendations to inform selection of a preferred alignment	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken, assessment of impacts on features and their setting, appropriate mitigation or compensation measures and any construction stage monitoring required, to the satisfaction of Historic Scotland and other relevant stakeholders		
Inventory Gardens & Designed Landscapes (GDL)	Blair Castle GDL	A9 runs through and alongside Blair Castle GDL from approx. ref.: NN872647 to NN839657 Dualling also constrained by Ancient Woodland, River Garry (River Tay SAC), Aldclune and Inverack Meadows SSSI and Tulach Hill designations within this stretch Refer to and embed range of strategic principles on historic environment, landscape and avoidance where possible	Secure early consultation with Historic Scotland, CNPA, Local Authority heritage team and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group), to present local alignment options and determine their recommendations to inform selection of a preferred alignment Seek early agreement on additional studies/ investigations required for DMRB Stage 3, including assessment of landscape and visual impacts, including impact on setting	Environmental Statement to include appropriate record of consultation, all further studies undertaken, assessment of impacts on features and their setting, appropriate mitigation or compensation measures and any construction stage monitoring required, to the satisfaction of Historic Scotland, CNPA and other relevant stakeholders		
Conservation Area (CA)	Blair Atholl CA	Both of these Conservation Areas are outwith the 200m wide corridor and are unlikely to be directly affected by dualling May have to consider impacts in terms of sensitive visual receptors and noise	Secure early consultation with Historic Scotland, CNPA, Local Authority heritage team and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to determine whether these CAs require consideration as sensitive visual and/ or noise receptors			
Conservation Area (CA)	Pitlochry & Kincross CA					

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – South			**Design Project – Killiecrankie to Pitagowan (approx. 10.5km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Section B1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
National Scenic Areas (NSA)	Loch Tummel NSA	Start of section is within the Loch Tummel NSA, from the existing Killiecrankie dual carriageway and into the Battlefield Refer to A9 Strategic Landscape Review (ER Addendum Appendix F) and secure early consultation with SNH and CNPA to discuss landscape issues related to NSA special qualities Aim to minimise impacts on woodland within the NSA Consider opportunities for enhanced laybys and viewpoints in consultation with SNH, CNPA and Historic Scotland	Embed strategic landscape principles and secure early consultation with SNH, CNPA and Historic Scotland to discuss DMRB2 alignment options 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 (and Killiecrankie Battlefield), including potential for enhanced laybys and interpretation features Agree range of visual receptors with SNH and CNPA for detailed Landscape and Visual Impact Assessment (LVIA) at next stage	Stage 3 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 SNH, CNPA and Historic Scotland		
Cairngorms National Park (CNP)	The full section is either within, or runs along the boundary of, the Cairngorms National Park	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) CNPA will require effective consideration of non-designated natural heritage sites, protected species, geodiversity, NMU, access, layby and landscape/ visual/ battlefield 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 the preferred dualling alignment 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 required		
SEPA 1:200 year Flood Zone	Existing route crosses Flood Zone at various points in this section, given the proximity to the River Tay SAC and its tributaries	Refer to ER Addendum Appendix G (Strategic Flood Risk Assessment) Embed strategic principles approach to avoid encroachment in the flood zone; however, this stretch is bordered by the River Tay flood zone to the west side of the road and is unlikely to be avoided at all locations Any loss of functional flood plain will require compensatory storage	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 option impacts and to determine requirements for flood risk assessment, SUDS drainage and CAR requirements Consider where drainage designs can include improved wildlife crossing and fish passage 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 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		
Highland Mainline (HML)	HML crossing identified at approx. ref.: NN891642	Mainly an engineering constraint; however, likely to affect scale and location of dualling earthworks required for a new crossing	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 crossings 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		
Non-Motorised Users (NMU)	NCN7, Perth and Kinross Council and Cairngorms National Park Core Paths within this section Approx. crossing refs.: NN917628 NN891642 NN890642 NN870648 NN839657 NN825657 NN813657	Refer to ER Addendum Section 4.3 Various Core Paths and the NCN7 run in proximity and/ or parallel to the A9 in this section Refer to and embed strategic principles approach to NMU and cycling provisions NMUs to include pedestrians, cyclists and equestrians CNPA is the access authority within the Park boundaries Non-motorised user (NMU) access may be impacted during construction and existing crossing points may be rationalised to provide safer crossing opportunities	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		
Wildlife Crossings	The existing A9 is considered to act as a barrier to species movement However, the location of any wildlife crossing opportunities was outwith the scope of the SEA	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 Secure early consultation with SNH, and CNPA within the Park boundaries, on appropriate species and habitat survey requirements	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 (eg. mammals and fish) crossings and passes		

Table B.4 SEA Monitoring Framework – Design Section Constraints – Pitagowan to Glen Garry

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – South		**Design Project – Pitagowan to Glen Garry (approx. 11km)**				
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Sections B1 and C1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
Special Area of Conservation (SAC)	River Tay SAC Approx. crossing refs.: NN825657 Crossing on the approach to Pitagowan/ House of Bruar travelling north from Killiecrankie	Refer to ER Addendum Appendix E, HRA and Programme-level Appropriate Assessment (AA) Report Embed range of strategic principles on biodiversity, and avoidance of SAC site boundaries and impacts wherever possible Any crossings of the River Tay SAC, or encroachment upon the SAC boundaries, will require consideration via project level Habitats Regulations Appraisal (HRA) Drainage/ SuDS outfalls to the River Tay SAC, and its tributaries are also likely to require consideration via project level HRA Should include consultation with SEPA and Tay Fisheries Board on drainage, SuDS and CAR aspects Refer to SNH's River Tay SAC advice to developers at: http://www.snh.org.uk/pdfs/publications/designatedareas/River%20Tay%20SAC.pdf	Secure early consultation with SNH and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to agree project level HRA Screening requirements for crossings of, and drainage to, the River Tay SAC Consultation with SNH to determine alternative alignment option impacts on River Tay designations, to inform selection of the preferred dualling alignment 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 and opportunities to improve crossings for fish passage (eg. flood risk implications) Tay 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 Stage 3 Environmental Statement finalisation to inform final preferred alignment design To include means to address potential spillage, run-off, pollution and sedimentation/ hydrological risks/ effects on river geomorphology, with mitigation, management plans and exclusion zones/ timescales for qualifying species Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required		
Site of Special Scientific Interest (SSSI)	Glen Garry Geological SSSI	A9 runs through Glen Garry SSSI and the A9 and River Garry GCR sites at various locations (multi-site designations) SSSI and GCR designations consist of various rock exposure/ A9 cuttings sites Embed range of strategic principles on geodiversity and avoidance of designated site boundaries where possible SNH guidance is to avoid additional cuttings through these sites if possible; however, if unavoidable, dualling works should result in exposures of equal or better quality for geodiversity interest	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 these SSSI and GCR sites, to inform selection of the preferred dualling alignment Consultation with SNH should also consider Ancient Woodland constraints in the vicinity of the SSSI/ GCR sites SNH also keen to see provision of layby(s) and safe crossing(s) in this stretch as any unavoidable exposures will be of geodiversity (study) interest Consider opportunities to provide wildlife crossing opportunities to secure multi-species benefit Stage 2 will also require consideration of any SSSI consents required to inform Stage 3	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required Where exposures are unavoidable, Environmental Statement should include guidance (agreed with SNH) on mitigation measures to ensure an equal or better standard of provision, including any rock cutting and landscape treatment required		
Geological Conservation Review Site (GCR)	A9 and River Garry GCR					
Ancient Woodland (of semi-natural origin)	1 x AW (SNO) Wood ID 17553 NN783671 (Category 1a & 2a)	A mixture of AWI woodlands lie to both sides of the existing A9 in this section Embed range of strategic principles on biodiversity, woodland and avoidance where possible However, as much of this section is bordered by AWI woodlands on both sides, 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 In this section, AWI woods are in the same vicinity as the Geological SSSI and GCR constraints noted above	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		
Ancient Woodland (Roy)	1 x AW (Roy) Wood ID 17554 NN791666 (Category 3)					
Historic Environment including Unscheduled Archaeology	Scheduled Monuments, Listed Buildings and Inventory Gardens and Designed Landscapes 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		
Scheduled Monuments (SM)	Clach na h'Iobairt, standing stone 300m E of Pitagowan	This SM lies within the 200m wide corridor and may be directly affected by dualling Dualling alignment will be informed by location of a new River Garry (River Tay SAC) crossing at approx. ref.: NN825657 Embed range of strategic principles on historic environment and avoidance where possible Need to balance SM issues with River Tay SAC and flood plain constraints Aim to avoid direct impacts on SM and maximise clearance between heritage features and dualling works	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 this heritage feature, to inform selection of the preferred dualling alignment Where avoidance is not possible within the 200m online corridor, DMRB2 alignment studies should consider local alternatives outwith the 200m corridor Embed strategic principles approach to avoid, and discuss Scheduled Monument consent requirements with Historic Scotland should this feature prove unavoidable	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken, assessment of impacts on features and their setting, appropriate mitigation measures and any construction stage monitoring required, to the satisfaction of Historic Scotland		

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – South		**Design Project – Pitagowan to Glen Garry (approx. 11km)**				
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Sections B1 and C1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
Listed Building (Cat B)	Clunes Lodge LB 337526 Approx. ref.: NN781671	LB is at the outer extent of the 200m-wide corridor, but is unlikely to be directly affected by dualling Screened from existing A9 by Ancient Woodland; however, the Glen Garry SSSI (Geological) constrains dualling on the opposite side of the carriageway	Embed range of strategic principles on historic environment and avoidance where possible Secure early consultation with Historic Scotland, Local Authority heritage team and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group), to present local alignment options and determine their recommendations to inform selection of a preferred alignment Dualling in the vicinity of Clunes Lodge will require consultation with SNH due to the presence of Ancient Woodland and geodiversity SSSI features in close proximity Historic Scotland may identify the bridges as sensitive visual receptors and require an assessment of potential impacts on setting	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken, assessment of impacts on features and their setting, appropriate mitigation or compensation measures and any construction stage monitoring required, to the satisfaction of Historic Scotland, SNH and other relevant stakeholders		
Listed Building (Cat B)	Dalnamein Bridge (large) on former route of A9 LB 399556 Approx. ref.: NN755695	These LB bridges are within the 200m-wide corridor, but are unlikely to be directly affected by dualling Only other major constraint in the area relates to the 1:200 year flood risk zone around the Allt Anndeir watercourse				
Listed Building Cat C(S)	Dalnamein Lodge, Allt Anndeir, Old Bridge LB 337528 Approx. ref.: NN754696					
Cairngorms National Park (CNP)	This entire section is 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) 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 the preferred dualling alignment 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 required		
Peat Soils	Areas of peaty soils identified around approx. ref.: NN773680	Peat deposits identified in the same area as the Glen Garry SSSI/ GCR sites Embed strategic principles approach to avoid disturbance of peat soils; however, where unavoidable, minimise impacts/ risks to peat soil hydrology and ecology	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 on, Groundwater Dependent Terrestrial Ecosystems (GWDTE)	Preferred alignment design and Environmental Statement to include appropriate record of consultation, further peat or GWDTE studies undertaken (if required), any mitigation or compensatory works required, and an agreed peat habitat management and restoration plan in accordance with applicable guidance		
SEPA 1:200 year Flood zone	Existing route crosses Flood Zone at various watercourse crossings Approx. crossing refs.: NN825657 NN789665 NN769688 NN755695 NN734702	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 Preference would be to avoid encroachment in the flood zone; however, this stretch is bordered by the River Garry flood zone and is unlikely to be avoided at all locations	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 option impacts and to determine requirements for flood risk assessment, SUDS drainage and CAR requirements Consider where drainage designs can include improved wildlife crossing and fish passage 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 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		
Highland Mainline (HML)	HML crossing identified at Calvine, approx. ref.: NN811657	Mainly an engineering constraint; however, likely to affect scale and location of dualling earthworks required for a new crossing	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 crossings 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		
Non-Motorised Users (NMU)	NCN7 and Perth and Kinross Council Core Paths within this section Approx. crossing refs.: NN825657 NN813657 NN789665	Refer to ER Addendum Section 4.3 Core Paths and NCN7 run in proximity and/ or parallel to the A9 in this section NMUs to include pedestrians, cyclists and equestrians Non-motorised user (NMU) access may be impacted during construction and existing crossing points may be rationalised to provide safer crossing opportunities Refer to and embed strategic principles approach to NMU and cycling provisions CNPA is the access authority within the Park boundaries Perth and Kinross Core Path at the River Garry crossing on the approach to Pitagowan at approx. ref.: NN825657 NCN7 Section ID 79 before Calvine at approx. ref.: NN813657 Crossing will likely be affected by choice of alignment between Pitagowan and Calvine, but should not directly affect NCN7 as this is on underpass at this location NCN7 Section 75 is potentially affected by embankment/ earthworks at approx. ref.: NN789665	Selection of alignment options to minimise risks to AWI and Geological SSSI/ GCR might affect level of impact on NCN7 in this area Perth and Kinross Council and CNPA will likely require demonstration that any effect on the Core Path is compensated to an equal or improved standard P&K council, CNPA and Sustrans likely to require demonstration that any effects on NCN7 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		
Wildlife Crossings	The existing A9 is considered to act as a barrier to species movement However, the location of any wildlife crossing opportunities was outwith the scope of the SEA	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 Secure early consultation with SNH, and CNPA within the Park boundaries, on appropriate species and habitat survey requirements	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 (eg. mammals and fish) crossings and passes		

Table B.5 SEA Monitoring Framework – Design Section Constraints – Glen Garry to Dalwhinnie

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – Central				**Design Project – Glen Garry to Dalwhinnie (approx. 10.5km)**		
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Section C1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
Special Area of Conservation (SAC)	Drumochter Hills SAC	Refer to ER Addendum Appendix E – HRA and Programme-level Appropriate Assessment Report The current A9 runs through a narrow corridor between SAC/ SPA site boundaries on either side The SSSI site boundaries envelop the SAC/ SPA boundaries and has no corridor through the centre, i.e. the current A9 runs directly through the SSSI SPA designated for breeding merlin and dotterel bird species SAC and SSSI designations cover upland peat, wetlands and rare habitats and vascular plant species and fluvial geomorphology (geodiversity) features (see Geological Conservation Review feature row below) Key issues for consideration include: • avoidance of SAC/ SPA boundaries wherever possible; • possible encroachment into SAC/ SPA site boundaries, including dualling alignment options and junction options at the northern and southern extents; • demonstration of, and SNH agreement on, suitable engineering solutions at pinch points where space is constrained by the Highland Mainline, Beauly Denny line and the River Truim (River Spey SAC); • inclusion of suitable drainage and SuDS features, including consideration of impacts on drainage into SAC habitats and the GCR feature, to the satisfaction of SEPA and SNH; • consideration of habitat impacts, including peat, Groundwater Dependent Terrestrial Ecosystems (GWDTE); • opportunities to incorporate wildlife crossings; • noise disturbance during bird breeding and nesting seasons; • effective consideration of cumulative impacts within the site boundaries; • landscape and visual impacts in a sensitive upland area; • consideration of geodiversity features; • 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	Embed range of strategic principles on biodiversity and avoidance of SAC/ SPA/ SSSI site boundaries and impacts where possible Secure early consultation with SNH to agree project level HRA Screening requirements for alignment, junctions and drainage options through the Drumochter Hills site Consultation with SNH to inform selection of the preferred dualling alignment and agree solutions at pinch points, approx. refs.: NN627770, NN626773, NN625775, NN625778, NN625782, NN626785, NN627789, NN639831, NN639838 SNH consultation to advise requirements for surveys and mitigation for qualifying interest species and to inform the approach to more detailed Appropriate Assessment, as required to support DMRB3 detailed design and Environmental Statement SNH consultation to include consideration of drainage and SuDS requirements to address risks to SAC habitats and potential effects on SSSI geomorphology/ geodiversity feature SEPA should be included in discussion on levels of SuDS treatment, CAR requirements and flood risk implications SSSI boundary is larger than the SAC/ SPA boundary and runs directly alongside the current A9 between approx. refs.: NN628791 and NN639838 DMRB2 alignment options design should aim to minimise dualling footprint/ encroachment within the SSSI boundary Consultation with SNH and SEPA 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 SAC/ SPA/ SSSI features and habitats Peat and GWDTE surveys (ecology and hydrology) will be required to inform DMRB3 HRA/ AA, drainage strategy, Environmental Statement and any habitat management and restoration plans	Project level HRA/ AA must be completed and agreed with SNH in advance of Stage 3 Environmental Statement finalisation to inform final preferred alignment design Project level HRA/ AA will need to demonstrate no adverse effects on site integrity for SAC and SPA qualifying features and species To include means to address dualling through pinch points, potential run-off, pollution and sedimentation/ hydrological risks/ effects on SAC habitats and SSSI geomorphology/ geodiversity feature, 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/ peat habitats as well as peat habitat management and restoration plans Consultation with SNH, Cairngorms National Park Authority and other relevant stakeholders required on landscape and visual impacts assessment for preferred alignment and junction options in the vicinity of the Drumochter site 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 and Cairngorms National Park Authority		
Special Protection Area (SPA)	Drumochter Hills SPA					
Site of Special Scientific Interest (SSSI)	Drumochter Hills SSSI					
Geological Conservation Review Site (GCR)	Allt Dubhaig GCR	Is the qualifying geodiversity feature of the Drumochter Hills SSSI Lies to the west of the A9 at the Dalnaspidal end of the Pass of Drumochter, on the entrance to the SSSI site boundaries The GCR site is separated from the A9 by the Highland Mainline, therefore no direct land take from the GCR is anticipated SNH have stressed the risks to this feature site relate to sedimentation from construction runoff and changes to drainage provisions, therefore a drainage impact assessment and mitigation/ pollution control plan will be required	Secure early consultation with SNH and SEPA to discuss drainage issues and options/ further studies and assessment requirements for this qualifying geomorphology feature site of the Drumochter Hills SSSI SNH may be able to provide access to a Beauly Denny line contact, as SNH required a drainage impact assessment for that project Will require discussion with SNH and SEPA on the level of overall SuDS provision required and construction stage pollution control and environmental management	DMRB Stage 3 will likely be required to deliver a risk/ impact/ mitigation assessment report to satisfy SNH (the Beauly Denny line project was required to do so) DMRB Stage 3 Environmental Statement will have to demonstrate effective consideration of construction stage risks, environmental management and pollution control measures to avoid and minimise runoff risks to this feature site		
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 boundary starts within the Drumochter Hills area, as the River Truim, approx. ref.: NN629764, and meanders northwards towards the Insh Marshes (SAC crossing at approx. ref.: NN637814) Creates a particular constraint to the west of the current A9, included within the pinch points noted under the Drumochter Hills text above 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 in this constrained section 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	Embed range of strategic principles on biodiversity and avoidance of SAC site boundaries and impacts wherever 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 option impacts on River Spey designations, to inform selection of the preferred dualling alignment 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 Stage 3 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 alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required		

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – Central			**Design Project – Glen Garry to Dalwhinnie (approx. 10.5km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Section C1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
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		
Scheduled Monuments (SM)	Dalwhinnie, Wade Bridge Approx. ref.: NN638827	SM and LB designations on the same feature Unlikely to be directly affected by A9 dualling; however, it is located within the 200m wide corridor Embed range of strategic principles on historic environment and avoidance where possible May 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 option impacts on this heritage feature, to inform selection of the preferred dualling alignment Seek agreement on whether or not additional studies are 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		
Listed Building (Cat B)	Dalwhinnie, Wade Bridge LB 339627					
Cairngorms National Park (CNP)	This A9 section runs entirely within the CNP boundary	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 the preferred dualling alignment 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 required		
Peat Soils	Peaty soils identified throughout this section	Entire section runs through an upland area with peat soils and other wetland habitats identified as qualifying features and/ or priority habitats within SAC and SSSI boundaries Embed strategic principles approach to avoid losses of peat soils where possible Notes on avoiding SAC boundaries and minimising footprint within SSSI boundaries also relevant to peat issues SNH and SEPA will also require demonstration that Groundwater Dependent Terrestrial Ecosystems (GWDTE) have been identified/ surveyed and assessed with effective mitigation/ compensation/ restoration plans, with reference to current guidance	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 on, Groundwater Dependent Terrestrial Ecosystems (GWDTE)	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		
SEPA 1:200 year Flood Zone	Existing route crosses Flood Zone at various locations Approx. crossing Refs.: NN645733 NN626786 NN627789 NN629795 NN630795 NN633806 NN639831 NN639838	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 Flood zone areas principally around River Spey SAC (River Truim) and tributaries, and around the Allt Dubhaig GCR site and tributaries Preference would be to avoid encroachment in the flood zone; however, this stretch is bordered by the River Truim flood zone to the west side of the road and is unlikely to be avoided at all locations	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 option impacts and to determine requirements for flood risk assessment, SUDS drainage and CAR requirements Consider where drainage designs can include improved wildlife crossing and fish passage 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 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		
Highland Mainline (HML)	No HML crossings of within this section HML is a key physical constraint running generally parallel to the west of the A9	Mainly an engineering constraint; however, will affect scale and location of dualling earthworks required within this constrained section of the route, particularly at the pinch points noted under the Drumochter Hills text above	Secure early consultation with relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to determine alternative alignment options, which clearly demonstrate HML constraints, and inform selection of the preferred dualling alignment Cairngorms National Park Authority may require identification of HML as a sensitive visual receptor in this area for inclusion in visual impact assessments	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation required		
Beauly Denny Power Line (BDL)	Runs generally parallel to the east of the current A9 in this section	Travelling north, the BDL crosses the A9 at Glen Garry dual carriageway at approx. ref.: NN715706, and again just north of Dalwhinnie at approx. ref.: NN647859 Between these crossings, the BDL follows the A9 route and adds a further fixed infrastructure constraint at the pinch points noted under the Drumochter Hills text above	Secure early consultation with relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to determine alternative alignment options, which clearly demonstrate BDL constraints, and inform selection of the preferred dualling alignment SNH may be able to provide access to a Beauly Denny line contact, as SNH required HRA/ AA and associated ecological surveys, mitigation and restoration plans for that project	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation required		

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – Central			**Design Project – Glen Garry to Dalwhinnie (approx. 10.5km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Section C1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
Non-Motorised Users (NMU)	NCN7 and Cairngorms National Park Core Paths within this section	Refer to ER Addendum Section 4.3 NCN7 runs generally parallel and directly alongside to the west of the current A9 through the Drumochter Hills site (also forms part of the CNPA Core Path network) Refer to and embed strategic principles approach to NMU and cycling provisions CNPA is the access authority within the Park boundaries No formal NCN or Core Path crossings identified; however, these routes provide an additional constraint between the A9, HML and River Spey SAC NMUs to include pedestrians, cyclists and equestrians Non-motorised user (NMU) access may be impacted during construction and existing crossing points may be rationalised to provide safer crossing opportunities	CNPA and Sustrans likely to require assurance that any effects on NCN7 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		
Wildlife Crossings	The existing A9 is considered to act as a barrier to species movement However, the location of any wildlife crossing opportunities was outwith the scope of the SEA	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 Secure early consultation with SNH and CNPA on appropriate species and habitat survey requirements	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 (eg. mammals and fish) crossings and passes		

Table B.6 SEA Monitoring Framework – Design Section Constraints – Dalwhinnie to Crubenmore

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – Central			**Design Project – Dalwhinnie to Crubenmore (approx. 9.5km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Sections C1 and D1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
Special Area of Conservation (SAC)	Drumochter Hills SAC	See Drumochter Hills notes on previous Table B.6 – Glen Garry to Dalwhinnie section Refer to ER Addendum Appendix E – HRA and Programme-level Appropriate Assessment Report Key issues for consideration in this Design Project include: • possible encroachment into SAC/ SPA site boundaries, associated with Dalwhinnie junction options at the northern extent of the site; • inclusion of suitable drainage and SuDS features, including consideration of impacts on drainage into SAC habitats, to the satisfaction of SEPA and SNH; • consideration of habitat impacts, including peat, Groundwater Dependent Terrestrial Ecosystems (GWDTE); • opportunities to incorporate wildlife crossings; • noise disturbance during bird breeding and nesting seasons; • effective consideration of cumulative impacts within the site boundaries; • landscape and visual impacts; Should dualling alignment/ junction design options encroach within SAC/ SPA site boundaries, project level Habitats Regulations Appraisal and Appropriate Assessment will be required Separate consideration of SSSI features and consents will be required	Embed range of strategic principles on biodiversity, and avoidance of SAC/ SPA/ SSSI site boundaries and impacts wherever possible Secure early consultation with SNH to agree project level HRA Screening requirements for alignment, junctions and drainage options through the Drumochter Hills site Consultation with SNH to inform selection of the preferred dualling alignment and junction options SNH consultation to advise requirements for surveys and mitigation for qualifying interest species and to inform the approach to more detailed Appropriate Assessment, as required to support DMRB3 detailed design and Environmental Statement SNH consultation to include consideration of drainage and SuDS requirements to address risks to SAC and SSSI habitats and species SEPA should be included in discussion on levels of SuDS treatment, CAR requirements and flood risk implications SSSI boundary is larger than the SAC/ SPA boundary and runs directly alongside the current A9 between approx. refs.: NN628791 and NN639838 DMRB2 options design should aim to minimise dualling and junction footprints/ encroachment within the SSSI boundary Consultation with SNH and SEPA 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 SAC/ SPA/ SSSI features and habitats Peat and GWDTE surveys (ecology and hydrology) will be required to inform DMRB3 HRA/ AA, drainage strategy, Environmental Statement and any habitat management and restoration plans	Should SAC/ SPA boundaries prove unavoidable, project level HRA/ AA must be completed and agreed with SNH in advance of Stage 3 Environmental Statement finalisation to inform final preferred alignment design Project level HRA/ AA will need to demonstrate no adverse effects on site integrity for SAC and SPA qualifying features and species To include means to address potential run-off, pollution and hydrological risks/ effects on SAC habitats 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/ peat habitats as well as peat habitat management and restoration plans Consultation with SNH, Cairngorms National Park Authority and other relevant stakeholders required on landscape and visual impacts assessment for preferred alignment and junction options in the vicinity of the Drumochter site 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 and Cairngorms National Park Authority		
Special Protection Area (SPA)	Drumochter Hills SPA					
Site of Special Scientific Interest (SSSI)	Drumochter Hills SSSI					
Special Area of Conservation (SAC)	River Spey SAC	Refer to ER Addendum Appendix E – HRA and Programme-level Appropriate Assessment Report 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 in this constrained section 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	Embed range of strategic principles on biodiversity and avoidance of SAC site boundaries and impacts wherever possible, recognising potential issues in this section at approx. refs.: NN647858 to NN650862 (route constrained between river and aqueduct), NN656871 (crossing of SAC tributary), NN660877 to NN665882 (river in close proximity to HML and A9) NN677910 (crossing of SAC tributary) 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 option impacts on River Spey designations, to inform selection of the preferred dualling alignment and junction location(s) 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 Stage 3 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 alignment/ junction design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required		
Site of Special Scientific Interest (SSSI)	Loch Etteridge Geological SSSI	These feature sites are unlikely to be affected by dualling works to current single carriageways, but should be considered further if any works are to be considered on the existing Crubenmore dual carriageway – for example, improvements to junctions or provision of underpasses	Unlikely to require consideration at DMRB Stage 2 for single carriageway dualling designs Should be considered if design options extend to junction improvements/ underpass provision on existing Crubenmore dual carriageway Embed range of strategic principles on geodiversity and avoidance of designated site boundaries and impacts where possible	Unlikely to require consideration at DMRB Stage 3 for single carriageway dualling designs Should be considered if design options extend to junction improvements/ underpass provision on existing Crubenmore dual carriageway		
Geological Conservation Review Site (GCR)	Loch Etteridge GCR					
Ancient Woodland (of semi-natural origin)	AW (SNO) Wood ID 17185 Class 1a	This AWI site is unlikely to be affected by dualling works to current single carriageways, but should be considered further if any works are to be considered on the existing Crubenmore dual carriageway – for example, improvements to junctions or provision of underpasses	Unlikely to require consideration at DMRB Stage 2 for single carriageway dualling designs Should be considered if design options extend to junction improvements/ underpass provision on existing Crubenmore dual carriageway Embed range of strategic principles on biodiversity, woodland and avoidance where possible	Unlikely to require consideration at DMRB Stage 3 for single carriageway dualling designs Should be considered if design options extend to junction improvements/ underpass provision on existing Crubenmore dual carriageway		

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – Central			**Design Project – Dalwhinnie to Crubenmore (approx. 9.5km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Sections C1 and D1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
Historic Environment including Unscheduled Archaeology	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		
Listed Building (Cat B)	Dalwhinnie Distillery LB 338623 and Bonded Warehouse LB 338624	No direct impact anticipated on these LBs; however, may have to be considered as sensitive visual receptors for assessment of visual impacts/ effects on setting	Embed range of strategic principles on historic environment and avoidance where possible Secure early consultation with Historic Scotland and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to determine whether additional studies are 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		
Listed Building (Cat B)	Crubenmore, Old Bridge LB 339626 NN676913	LB bridges are unlikely to be directly affected by dualling as the Highland Mainline presents a barrier between the A9 and these LB features Both are also in the vicinity of the transition between A9 single/ dual carriageways, so any impact on setting is likely to be minimal				
Listed Building (Cat C(S))	Crubenmore Bridge LB 399555 NN676914					
Cairngorms National Park (CNP)	This entire section is 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 the preferred dualling alignment 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 required		
Peat Soils	Peaty soils identified throughout this section	Large sections through Glen Truim identified with peat soils and other wetland habitats Embed strategic principles approach to avoid losses of peat soils where possible Action to avoid River Spey SAC and SSSI boundaries may mean dualling to the opposite (east) side of the current carriageway, which may increase risk to peat habitats/ soils SNH and SEPA will also require demonstration that Groundwater Dependent Terrestrial Ecosystems (GWDTE) have been identified/ surveyed and assessed with effective mitigation/ compensation/ restoration plans, with reference to current guidance	Secure early consultation with SEPA and SNH to determine alternative alignment and junction option impacts on peat soils, to inform selection of the preferred options 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 on, Groundwater Dependent Terrestrial Ecosystems (GWDTE)	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		
SEPA 1:200 year Flood Zone	Existing route crosses Flood Zone in two areas Approx. refs.: NN656871 NN677910 HML provides a barrier in other 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 Flood zone areas principally around watercourse crossings Preference would be to avoid encroachment in the flood zone; however, avoidance is unlikely at crossing locations	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 option impacts and to determine requirements for flood risk assessment, SUDS drainage and CAR requirements Consider where drainage designs can include improved wildlife crossing and fish passage 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 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		
Highland Mainline (HML)	No HML crossings in this section	HML provides a physical barrier between the A9, the River Spey SAC and the 200 year Flood Zone across much of the length of this section Mainly an engineering constraint; however, will affect scale and location of dualling earthworks required	Secure early consultation with relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to determine alternative alignment options, which clearly demonstrate HML constraints, and inform selection of the preferred dualling alignment Cairngorms National Park Authority may require identification of HML as a sensitive visual receptor in this area for inclusion in visual impact assessments	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation required		
Beauly Denny Power Line	Beauly Denny line runs to the east of the A9 until it crosses the route just north of Dalwhinnie at approx. ref.: NN647859	The BDL follows the A9 route and adds a further fixed infrastructure constraint; however, removal of old pylons may provide opportunities in terms of space for dualling in this section	Secure early consultation with relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to determine alternative alignment options, which clearly demonstrate BDL constraints, and inform selection of the preferred dualling alignment	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation required		

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – Central			**Design Project – Dalwhinnie to Crubenmore (approx. 9.5km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Sections C1 and D1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
Non-Motorised Users (NMU)	NCN7 and Core Paths in the area run to the opposite side of the river and HML in this section	No impact on NCN7 or Core Paths expected in this section CNPA is the access authority within the Park boundaries Refer to and embed strategic principles approach to NMU and cycling provisions NMUs to include pedestrians, cyclists and equestrians Non-motorised user (NMU) access may be impacted during construction and existing crossing points may be rationalised to provide safer crossing opportunities	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 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 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		
Wildlife Crossings	The existing A9 is considered to act as a barrier to species movement However, the location of any wildlife crossing opportunities was outwith the scope of the SEA	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 Secure early consultation with SNH and CNPA on appropriate species and habitat survey requirements	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 (eg. mammals and fish) crossings and passes		

Table B.7 SEA Monitoring Framework – Design Section Constraints – Crubenmore to Kincraig

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – Central			**Design Project – Crubenmore to Kincraig (approx. 16km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report 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 GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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 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	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 DMRB2 options design should aim to minimise dualling footprint/ encroachment within designated site boundaries 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 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	Project level HRA/ AA must be completed and agreed with SNH in advance of Stage 3 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 DMRB Stage 3 EIA/ HRA will need to consider effects on qualifying bird 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		
Special Protection Area (SPA)	River Spey - Insh Marshes SPA					
Site of Special Scientific Interest (SSSI)	River Spey - Insh Marshes SSSI					
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		
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		
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 Stage 3 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		
Site of Special Scientific Interest (SSSI)	River Spey SSSI					

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – Central			**Design Project – Crubenmore to Kincraig (approx. 16km)**			
SEA References: SEA Environmental Report – Section 5 Environmental Report 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 GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
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		
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		
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		
Listed Building (Cat A)	Ruthven Barracks LB 339620 and Stables LB 339621					
Listed Building (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 Burial Ground lies within Ancient Woodland and is within the 200m 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	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 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		
Listed Building (Cat B)	Balavil Mains and Steading LB 332347 NH789022					
Listed Building (Cat C(S))	Belleville House LB 332345 NH791026					
Listed Building (Cat C(S))	Belleville House, West Lodge And Gate Piers LB 332378 NH788020					
Listed Building (Cat C(S))	Belleville House, East Lodge LB 332377 NH796026					
Listed Building (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	Stage 3 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		
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		

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – Central			**Design Project – Crubenmore to Kincraig (approx. 16km)**			
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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**
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 mitigation/ compensation/ restoration plans, with reference to current guidance	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 on, Groundwater Dependent Terrestrial Ecosystems (GWDTE)	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		
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 Millton Burn/ Burn of Inverton (part of River Spey SAC, approx. ref.: NN734984 to NN744988 A9 crossing of Millton Burn/ Burn of Inverton could be contributing to upstream flooding, may require investigation to determine mitigation/ improvement opportunities 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	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 fish passage 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 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		
Highland Mainline (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		
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		
Wildlife Crossings	The existing A9 is considered to act as a barrier to species movement However, the location of any wildlife crossing opportunities was outwith the scope of the SEA	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 Secure early consultation with CNPA and SNH on appropriate species and habitat survey requirements	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 (eg. mammals and fish) crossings and passes		

Table B.8 SEA Monitoring Framework – Design Section Constraints – Dalraddy to Sloch'd

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – North				**Design Project – Dalraddy to Sloch'd (approx. 25km)**		
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Sections E1 and F1 (note, Section E1 is noted as from Newtonmore to Kingussie; however it should read Newtonmore to Kinveachy) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
Special Area of Conservation (SAC)	River Spey SAC Approx. crossing refs.: NH891231 NH896225 NH883106	Refer to ER Addendum Appendix E, HRA and Programme-level Appropriate Assessment (AA) Report Embed range of strategic principles on biodiversity and avoidance of SAC/ SSSI site boundaries and impacts where possible 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 Should include consultation with SEPA and Spey Fisheries Board on drainage, SuDS and CAR aspects	Secure early consultation with SNH and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to agree project level HRA Screening requirements for crossings of, and drainage to, the River Spey SAC Consultation with SNH to determine alternative alignment option impacts on River Spey designations, to inform selection of the preferred dualling alignment 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 and opportunities to improve crossings for fish passage (eg. flood risk implications) 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 Stage 3 Environmental Statement finalisation to inform final preferred alignment design To include means to address potential spillage, run-off, pollution and sedimentation/ hydrological risks/ effects on river geomorphology, with mitigation, management plans and exclusion zones/ timescales for qualifying species Stage 3 reports will also require separate consideration of impacts on, and mitigation for the SSSI designation, including any SSSI consents required Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required		
Site of Special Scientific Interest (SSSI)	River Spey SSSI					
Special Area of Conservation (SAC)	Kinveachy Forest SAC	Refer to ER Addendum Appendix E – HRA and Programme-level Appropriate Assessment Report Embed range of strategic principles on biodiversity, woodland and avoidance of designated site boundaries where possible No direct impact expected within Kinveachy Forest site boundaries in terms of habitat losses Likely to require project level HRA to consider Capercaillie issues as a qualifying interest species of Kinveachy Forest SPA and ecological connectivity to other Capercaillie SPAs	Secure early consultation with SNH and CNPA to agree project level HRA Screening requirements and approach to more detailed Appropriate Assessment, if determined as required to support DMRB3 detailed design and Environmental Statement Refer to ER Addendum Appendix E, HRA and Programme-level Appropriate Assessment (AA) Report Request any updates to the Programme level HRA/ AA from Transport Scotland	If Stage 3 HRA/ AA is required, likely to focus on potential for disturbance to Capercaillie and/ or potential for increasing barrier effects and may influence final alignment, junction and layby positioning Project level HRA/ AA must be completed and agreed with SNH in advance of Stage 3 Environmental Statement finalisation to inform final preferred alignment design Stage 3 reports will also require separate consideration of the SSSI designation, although no direct impact is anticipated Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required		
Special Protection Area (SPA)	Kinveachy Forest SPA					
Site of Special Scientific Interest (SSSI)	Kinveachy Forest SSSI					
Special Area of Conservation (SAC)	Slochd SAC	No direct impact expected as route is already dualled in vicinity of this geodiversity SAC Embed range of strategic principles on avoidance of designated site boundaries where possible	Secure early consultation with SNH to confirm that this site can be removed from HRA considerations and record outcome via HRA Screening	If removed via HRA Screening, nothing further required		
Geological Conservation Review Site (GCR)	The Slochd GCR Approx. ref: NH838254	Completely distinct site from the Sloch'd SAC See ER Section 5 and ER Addendum Section 3.4 Embed range of strategic principles on geodiversity and avoidance of designated site boundaries where possible	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 this GCR site, to inform selection of the preferred dualling alignment Seek agreement on additional studies required for DMRB Stage 3 assessments and opportunities to provide access to geodiversity features and exposures	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required Where new exposures are required, they should be of equal or better quality than existing		
Site of Special Scientific Interest (SSSI)	Craigellachie SSSI	Particular pinch point as the A9 runs between Aviemore and the Craigellachie site Combination of Ancient Woodland, SSSI wetland and priority habitats and NMU connectivity issues to be addressed Embed range of strategic principles on biodiversity and avoidance of SSSI/ NNR site boundaries and impacts where possible	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 the Craigellachie site designations, to inform selection of the preferred dualling alignment Seek agreement on additional studies required for DMRB Stage 3 assessments and opportunities to maintain NMU access to the site	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required Stage 3 reports will also require separate consideration of impacts on, and mitigation for the SSSI designation, including any SSSI consents required Where new NMU routes are required, they should be of equal or better quality than existing		
National Nature Reserve (NNR)	Craigellachie NNR Site managed by SNH					
Site of Special Scientific Interest (SSSI)	Alvie SSSI Site lies to the north of Dalraddy, surrounding Loch Alvie Includes Ancient Woodland of Semi-Natural Origin, Class 1a & 2a	Also borders Ancient Woodland of Semi-Natural Origin, Class 2a in proximity to current A9 Embed range of strategic principles on biodiversity and avoidance of SSSI site boundaries and impacts where possible SNH & CNPA have highlighted Alvie woods as stepping stone habitats for Capercaillie May have to be included in any HRA for Kinveachy Forest SPA	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 the Alvie site, to inform selection of the preferred dualling alignment Determine potential requirements for additional studies and surveys related to SuDS and drainage into Loch Alvie, the avoidance and minimisation of woodland impacts, and potential guidance on Capercaillie related issues and other wildlife crossing opportunities See below for Ancient Woodland issues	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required Where habitat compensation is not achievable in situ, Environmental Statement should identify where compensation will be delivered Stage 3 reports will also require separate consideration of impacts on, and mitigation for the SSSI designation, including any SSSI consents required		

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – North				**Design Project – Dalraddy to Sloch'd (approx. 25km)**		
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Sections E1 and F1 (note, Section E1 is noted as from Newtonmore to Kingussie; however it should read Newtonmore to Kinveachy) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
Ancient Woodland (of semi-natural origin)	c. 15 x AWI (SNO) Class 1a & 2a identified between Dalraddy and Sloch'd	A mixture of AW (SNO) and AW (Roy) woodland lies to both sides of the existing A9 in this section Embed range of strategic principles on biodiversity, woodland and avoidance where possible However, as much of this section is bordered by AWI woodlands on both sides, 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		
Ancient Woodland (Other/ On Roy Map)	c. 6 x AWI (Roy) Class 3 identified between Dalraddy and Sloch'd					
Historic Environment including Unscheduled Archaeology	Scheduled Monuments, Listed Buildings and Inventory Gardens and Designed Landscapes 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 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		
Scheduled Monuments (SM)	Doune motte, Rothiemurchus SM Approx. ref.: NH886098	No direct impact expected; however, may have to be included in terms of visual impact on historic sites/ receptors/ setting Embed range of strategic principles on historic environment and avoidance where possible Where avoidance is not possible within the 200m online corridor, DMRB2 alignment studies should consider local alternatives outwith the 200m corridor boundary	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 dualling alignment Seek agreement on whether or not additional studies are 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, assessment of impacts on features and their setting, appropriate mitigation measures and any construction stage monitoring required, to the satisfaction of Historic Scotland		
Listed Buildings (Cat B)	Carrbridge Station Carrbridge Station, Waiting Room Carrbridge Station, footbridge Carrbridge Station, Store Approx. ref.: NH898224					
Listed Building (Cat B)	Slochd Mhuic Railway Viaduct Approx. ref.: NH846237					
Inventory Gardens & Designed Landscapes (GDL)	Kinrara GDL South of A9 between Dalraddy and Aviemore	Both GDLs lie south of A9 with no direct impact expected; however, may have to be included in terms of visual impact on historic sites/ receptors/ setting Embed range of strategic principles on historic environment, landscape and avoidance where possible	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 GDL, to inform selection of the preferred dualling alignment Seek agreement on whether or not additional studies are 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		
	Doune of Rothiemurchus GDL South of A9 between Dalraddy and Aviemore					
Cairngorms National Park (CNP)	The majority of this section from Dalraddy to Sloch'd is 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 the preferred dualling alignment 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 required		
Peat Soils	Peat soils present around the A9 north of the Carrbridge crossing	Peat soils present around the A9 from Carrbridge to Sloch'd Embed strategic principles approach to avoid losses of peat soils where possible	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 on, Groundwater Dependent Terrestrial Ecosystems (GWDTE)	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		
Agricultural Soils	Productive agricultural soils present around the A9 between Dalraddy and Sloch'd	Embed strategic principles approach to avoid disturbance of productive agricultural land where possible	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 productive agricultural soils, to inform selection of the preferred dualling alignment Likely to require consideration of accesses to productive land	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any accommodation, mitigation or compensatory works required		

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – North				**Design Project – Dalraddy to Sloch'd (approx. 25km)**		
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Sections E1 and F1 (note, Section E1 is noted as from Newtonmore to Kingussie; however it should read Newtonmore to Kinveachy) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
SEPA 1:200 year Flood Zone	Existing route crosses Flood Zone at various watercourse crossings Approx. crossing Refs.: NH891231 NH896225 NH893138 NH883106 NH854092	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 Flood zone areas principally around River Spey SAC and tributaries Preference would be to avoid encroachment in the flood zone; however, avoidance is unlikely at all locations	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 option impacts and to determine requirements for flood risk assessment, SUDS drainage and CAR requirements Consider where drainage designs can include improved wildlife crossing and fish passage 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 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		
Highland Mainline (HML)	One HML crossing identified at approx. ref. NH852239 HML provides a barrier between the A9 and Loch Vaa SPA as well as Listed Buildings at Carrbridge Station	HML runs in proximity to A9 between Bogroy and Sloch'd Mainly an engineering constraint; however, likely to affect scale and location of dualling earthworks required for a new crossing	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		
Non-Motorised Users (NMU)	NCN7, Highland Council and Cairngorms National Park Core Paths within this section Approx. crossing refs.: NH852239 NH897225 NH893139 NH891120	Refer to ER Addendum Section 4.3 Various Core Paths and the NCN7 run in proximity and/ or parallel to the A9 in this section CNPA is the access authority within the Park boundaries Refer to and embed strategic principles approach to NMU and cycling provisions 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	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		
Wildlife Crossings	The existing A9 is considered to act as a barrier to species movement However, the location of any wildlife crossing opportunities was outwith the scope of the SEA	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 Secure early consultation with CNPA and SNH on appropriate species and habitat survey requirements	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 (eg. mammals and fish) crossings and passes		

Table B.9 SEA Monitoring Framework – Design Section Constraints – Tomatin to Moy

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – North				**Design Project – Tomatin to Moy (approx. 9km)**		
SEA References: SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Section F1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
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**
Natural heritage designations	No Natura, SSSI, NNR, GCR sites identified within this stretch	No designated sites noted; however early consultation with SNH and SEPA required in terms of peat, wetlands, priority habitats and protected species issues				
Ancient Woodland (Long established of plantation origin LEPO)	LEPO – Class 2b North of the Findhorn Viaduct approx. ref. NH795305 Around Moy and Lynebeg (both sides of the road) approx. ref. NH766342	AWI woodlands lie to both sides of the existing A9 in this section Embed range of strategic principles on biodiversity, woodland and avoidance where possible However, as the route is bordered by AWI woodlands on both sides, 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 Soils data suggests these woodlands are on peaty soils	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 AWI LEPO 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 Determine potential requirements for additional surveys and studies to inform possible peat habitat restoration where AWI LEPO woodlands are unavoidable and where peat restoration may be preferable to woodland planting	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		
Historic Environment including Unscheduled Archaeology	No Scheduled Monuments, Listed Buildings or Inventory Gardens and Designed Landscapes identified by SEA	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	Secure early consultation with Historic Scotland, 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		
Peat Soils	Peat soils present throughout the majority of this section Also indicated under woodland at Moy	Peat soils throughout majority of this section including under AWI LEPO woodland at Moy Embed strategic principles approach to avoid losses of peat soils where possible	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 on, Groundwater Dependent Terrestrial Ecosystems (GWDTE)	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		
SEPA 1:200 year Flood Zone	The existing route crosses the 1:200 year FZ around Dalmagarry Burn Approx. ref. NH787322	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 Flood zone areas principally around water course crossing Preference would be to avoid encroachment in the flood zone; however, avoidance is unlikely at crossing location	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 option impacts and to determine requirements for flood risk assessment, SUDS drainage and CAR requirements Consider where drainage designs can include improved wildlife crossing and fish passage 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 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		
Highland Mainline (HML)	One HML crossing identified between Dalmagarry and Moy Approx. ref NH779332	Mainly an engineering constraint; however, likely to affect scale and location of dualling earthworks required for a new crossing	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		
Non-Motorised Users (NMU)	NCN7 runs in proximity alongside the A9 from north of the Tomatin Distillery to the B9154 north of Dalmagarry, crossing the A9 at Dalmagarry Burn Approx. crossing ref NH787322	Refer to ER Addendum Section 4.3 NCN7 runs generally parallel to the west of A9 from Tomatin, before running parallel to the east after the crossing at Dalmagarry Refer to and embed strategic principles approach to NMU and cycling provisions 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	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 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		
Wildlife Crossings	The existing A9 is considered to act as a barrier to species movement However, the location of any wildlife crossing opportunities was outwith the scope of the SEA	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 Secure early consultation with SNH on appropriate species and habitat survey requirements	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 (eg. mammals and fish) crossings and passes		

A9 DUALLING
PERTH TO INVERNESS

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