

Appendix A2.1

Strategic Environmental Assessment Monitoring Framework



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1. Strategic Environmental Assessment Monitoring Framework

Table A1.1: Strategic Environmental Assessment Monitoring Framework – Design Section Constraints

SEA Identified Constraints	Description of Constraint	SEA Comment	Recommendations for later DMRB Stages		Record how addressed at:	
			DMRB2	DMRB3	DMRB2	DMRB3
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.	None noted.	None noted.	Consultation with SNH and SEPA undertaken during A9 Dualling Environmental Steering Group (ESG) meetings.	Further consultation with SNH during ESG meetings. Further information on consultation is provided in Chapter 7 (Consultation and Scoping) and Appendix A7.2 (Summary of Consultation Responses).
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	Secure early consultation with SNH and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling ESG) 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	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.	Consultation with SNH has been undertaken during ESG meetings. Requirements for additional surveys of ancient woodland sites have been determined. Compensatory habitat solutions will be considered in detail at DMRB Stage 3. AWI mapping has been supplemented with NWSS data at DMRB Stage 2.	Further consultation with SNH during ESG meetings regarding woodland loss and planting including AWI. Further information on consultation is provided in Chapter 7 (Consultation and Scoping) and Appendix A7.2 (Summary of Consultation Responses). An assessment of the impact of the Proposed Scheme on ancient woodland sites

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		<p>advise that categories 1a, 2a and 3 of Ancient Woodland (AW) are irreplaceable; however, category 2b may be of lower conservation value.</p> <p>Soils data suggests these woodlands are on peaty soils.</p>	<p>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.</p> <p>Ancient Woodland Inventory mapping should be supplemented with Native Woodland Survey of Scotland (NWSS) data.</p> <p>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.</p>	<p>Cumulative woodland impact to include woodland edge effects.</p> <p>Where habitat compensation is not achievable in situ, Environmental Statement should identify where compensation will be delivered.</p>		<p>has been undertaken as discussed in Chapter 12 (Ecology and Nature Conservation) and Chapter 13 (Landscape). Woodland edge effects and measures to minimise fragmentation have been taken into consideration in woodland planting mitigation.</p> <p>Chapter 8 (People and Communities - Community and Private Assets) considers the risk of windthrow and exposing new woodland edges. Cumulative impacts on loss of woodland including areas of AWI have also been considered and are discussed further in Chapter 20 (Cumulative Impacts). Compensatory habitat solutions have been considered in detail at DMRB Stage 3 and have been informed by discussions with</p>

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						<p>landscape architects and use of the woodland connectivity tool. To identify suitable areas for planting, this tool has been used along with consideration of other factors such as:</p> <ul style="list-style-type: none"> • landscape requirements; and • objectives for maintaining and enhancing permeability for species using woodland. <p>Figure 13.8a-t (Chapter 13, Landscape) provides proposed ecological and landscape mitigation which includes, but is not limited to, compensatory planting areas and areas of woodland to be retained.</p>
Historic Environment including Unscheduled Archaeology	No Scheduled Monuments, Listed Buildings or Inventory Gardens and Designed Landscapes	Unscheduled archaeology was outwith the scope of route-wide SEA studies and should be considered at an early stage in consultation with	Secure early consultation with Historic Environment Scotland, Local Authority archaeology or heritage team and obtain historic environment records to determine the location of	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and	Undesignated archaeological remains, historic buildings and historic landscape have been considered in the DMRB Stage 2 assessment.	Undesignated archaeological remains, historic buildings and historic landscape have been considered in the DMRB Stage 3

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	identified by SEA.	Historic Environment Scotland and the relevant Local Authority archaeology teams.	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.	any mitigation required for unscheduled archaeology.	Consultation was undertaken with Historic Environment Scotland and The Highland Council (THC) Archaeologist.	assessment as discussed in Chapter 15 (Cultural Heritage), with consultation on these assets undertaken with THC. Avoidance of undesignated assets has been undertaken where possible, and where avoidance has not been possible, suitable mitigation strategies have been identified (Mitigation Items P12-CH2 to P12-CH9 in Chapter 21).
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	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.	All DMRB Stage 2 route options developed would have some direct effects on peat soil hydrology and ecological receptors with potential groundwater component as a result of excavations. In excavation areas confirmed to intercept these receptors, it is acknowledged that specific mitigation may be required – this will be assessed in further detail at DMRB Stage 3.	GWDTE assessments were undertaken at DMRB Stage 3 and are reported in Chapter 10 (Geology, Soils and Groundwater). Sites with a potential for groundwater dependency that fall within a potential zone of influence from earthworks were identified and evaluated in detail. The presence of peat has also been recorded and volume

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			Terrestrial Ecosystems (GWDTE).			losses have been estimated as discussed in Chapter 10 (Geology, Soils and Groundwater). An Outline Soil and Peat Management Plan has been prepared (Appendix A10.2). Specific mitigation is proposed (Mitigation Items PG12-G21 and P12-G22 in Chapter 21) in relation to peat storage and re-use.
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.	Alignments have been developed to minimise encroachment into floodplain given other environmental constraints and the selection of an online route. Preliminary Flood Risk Assessment undertaken and engagement with SEPA to agree baseline and detail for Stage 3 assessment. Multi discipline design workshops held to ensure watercourse crossing design constraints understood and to inform design at Stage 3.	The Proposed Scheme has been assessed for flood risk and avoids encroachment into the functional floodplain where practicable. Flood risk assessment has included the assessment of the route against the SEPA 1:200-year flood zone. See Appendix A11.2 (Flood Risk Assessment) for further information. Compensatory storage has been included at one location in order to offset any impacts to flood risk associated

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						<p>with the Proposed Scheme.</p> <p>Consultation with SEPA has occurred during the DMRB Stage 3 assessment to discuss flood risk. For further information regarding consultation see Chapter 7 (Consultation and Scoping) and the accompanying Appendix (A7.2: Summary of Consultation Responses).</p> <p>Culverts and crossings have been designed with input from flood risk specialists. Channel realignments have also been designed to allow for existing flows and mimic (if not improve) existing channel cross-sections.</p>
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	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or	All HML crossing options have been developed to provide the required clearance envelope at Moy Rail Bridge. The proposal at Lynebeg Rail Underpass is to replace existing	There has been consultation with NR during the DMRB Stage 3 design development phase. This is to ensure NR is provided with updates

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			<p>on HML crossing and inform selection of the preferred dualling alignment.</p> <p>Consider opportunities to provide wildlife crossing opportunities to secure multi-species benefit.</p>	<p>compensatory works required.</p>	<p>bridge with a structure that has an increased span.</p> <p>Network Rail (NR) have been consulted and were advised of the Stage 2 options at a meeting on 6/10/16. Subsequently drawings were provided that highlighted the interface points between the A9 Dualling and the HML for Project 12 and all other interface points within the Northern Section of the A9 Dualling.</p>	<p>in relation to interfaces with NR infrastructure. AIP and F001 documents were submitted to NR on 22/03/18 for Moy Rail and Lynebeg Rail respectively.</p> <p>F001 documents were also submitted for the associated culverts at Moy Rail Bridge.</p>
<p>Non-Motorised Users (NMU)</p>	<p>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.</p> <p>Approx. crossing ref NH787322.</p>	<p>Refer to ER Addendum Section 4.3.</p> <p>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</p>	<p>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.</p> <p>Consider opportunities to provide wildlife crossing opportunities to secure multi-species benefit and</p>	<p>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.</p> <p>DMRB3 EIA to include construction mitigation requirements on provision of appropriate diversionary routes and</p>	<p>Consultation was undertaken with various access, cycling, equestrian and walking groups to inform the baseline assessment and ensure the path network described and assessed is accurate. The consultees provided information regarding the locations and usage of paths and key crossing points. Rights of Way data received from ScotWays.</p> <p>Consultation with various stakeholders</p>	<p>The Proposed Scheme assessed at DMRB Stage 3 is the result of an iterative design process in which provision for maintaining and enhancing NMU journeys was taken into account. As such, the proposed scheme includes embedded mitigation such as underpasses and provision of footpaths/cycleways, which reduces impacts on NMUs.</p>

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		<p>provide safer crossing opportunities.</p> <p>NMUs to include pedestrians, cyclists and equestrians.</p>	<p>to link NCN7 to enhanced layby facilities.</p> <p>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.</p>	<p>signage to maintain overall access provisions during construction.</p>	<p>also took place in two NMU forums (in November 2014 and May 2015). Information gained from stakeholders during these discussions was used to inform the baseline in this assessment. The consultation process informed the identification of potential conflict areas between NMUs and the proposed route options assessed in the Stage 2 Report. This information will also be taken into account during the Stage 3 assessment, where mitigation measures will be further developed and incorporated into the design of the preferred route option. Additional consultation will also be undertaken at DMRB Stage 3 to inform the assessment process and the development of mitigation.</p> <p>The provision of wildlife crossing opportunities as a principle is included within the project.</p>	<p>Consultation with various stakeholders (including THC, Sustrans, British Horse Society and ScotWays) also took place through the A9 Dualling NMU Forum in May 2015 and May 2016. Information gained from stakeholders during these discussions was used to inform the baseline in this assessment. Consultation with the Accessibility Forum (including People Friendly Design and Mobility and Access Community for Scotland (MACS)) took place in March 2017 to ensure accessibility is fully considered within the design.</p> <p>Chapter 9 (People and Communities: All Travellers) provides the full assessment of impacts on NMUs including journey length changes and impacts on amenity value.</p>

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					<p>Detailed provision will be considered at DMRB Stage 3.</p> <p>For the purposes of the A9 Dualling Programme, the Stage 1 Cycle and Accessibility Audits will be completed as part of the DMRB Stage 3 assessment, prior to publication of draft road orders.</p>	<p>Construction and operation mitigation for NMUs is set out in Chapter 9 (People and Communities: All Travellers) Section 9.5 (Mitigation).</p>
Wildlife Crossings	<p>The existing A9 is considered to act as a barrier to species movement.</p> <p>However, the location of any wildlife crossing opportunities was outwith the scope of the SEA.</p>	<p>Embed the principle of 'multi-species benefits through route permeability' across all design sections.</p>	<p>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.</p> <p>Secure early consultation with SNH on appropriate species and habitat survey requirements.</p>	<p>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 (e.g. mammals and fish) crossings.</p>	<p>The provision of wildlife crossing opportunities as a principle is included within the project.</p> <p>Detailed provision will be considered at DMRB Stage 3.</p> <p>Consultation with SNH has been undertaken during ESG meetings.</p>	<p>Consultation with SNH has been undertaken during ESG meetings; and guidance from the ESG has been taken into account in the design and location of wildlife crossings, associated fencing and landscape planting.</p> <p>Consultation undertaken for the Proposed Scheme is recorded in Chapter 7 (Consultation and Scoping) and accompanying Appendix A7.2 (Summary of Consultation Responses)).</p> <p>The provision of wildlife crossing opportunities</p>

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						<p>(including, providing mammal ledges on culverts and fencing) was informed by the DMRB Stage 3 surveys and assessments and locations were refined through discussion with other technical teams (including highways, drainage and landscape).</p> <p>The location of crossing points and mammal fencing in relation to the proposed scheme is shown on Figure 13.8a-t. Measures have also been identified to ensure the implementation of the appropriate mitigation (see Table 21.6 in Chapter 21).</p>

Table Source: A9 Dualling Programme Strategic Environmental Assessment Post Adoption SEA Statement, September 2014