

Appendix 7.1

Response to ESG DMRB Stage 2 Consultation Comments

Contents

Tables

Table 7.1.1	Response to Environmental Steering Group (ESG) DMRB Stage 2 Consultation Comments	1
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Table 7.1.1: Response to Environmental Steering Group (ESG) DMRB Stage 2 Consultation Comments

Chapter/ paragraph reference	ESG Comment	Response at DMRB stage	
		Response/ update at Stage 2	Response/ update at Stage 3
Scottish Environment Protection Agency (SEPA)			
Flood risk	<p>There is insufficient information to inform the following:</p> <ul style="list-style-type: none"> - The likely volumes of flood plain capacity which will be lost at the different options/locations and the identification of locations or areas of land which are suitable for the provision of compensatory flood storage; - The likelihood of adequate land being available at the correct vertical levels to provide compensatory storage without resulting in other adverse environmental impacts. <p>Consideration should be given to whether this is sufficient at this stage of the road development and how this may impact the project in the Stage 3 phase.</p> <p>We appreciate that before considering areas and requirements for compensatory storage, detailed design work will be undertaken to minimise the requirement for mitigation as far as possible, so detailed consideration of mitigation measures would be premature.</p> <p>On that basis though, it is not possible at this stage to determine that a final option can be developed without increasing flood risk elsewhere (as a result of piecemeal reduction of flood plain capacity).</p> <p>At Stage 3 we will expect that to be demonstrated and full details on all of the modelling work undertaken will be required to support the detailed design.</p>	<p>Comment acknowledged - no action required at Stage 2.</p> <p>This is an area of further investigation which will be carried out at Stage 3 after a preferred route option has been selected.</p> <p>Habitat surveys and further discussion with land owners will provide information on land suitability for compensatory storage.</p> <p>Full details will be provided at Stage 3 with a preferred alignment option as this will allow more focused and detailed assessments to be carried out at specific points/ crossings/ watercourses throughout Project 8.</p>	<p>Loss of floodplain due to earthworks encroachment has been quantified and the required compensatory storage evaluated using a volume-slices approach accepted by SEPA.</p> <p>Storage locations have been positioned in recognition of other environmental considerations and mitigation requirements and engineering proposals will be progressed at detailed design-stage.</p> <p>Full details are provided in the Flood Risk Assessment - Appendix 11.3 to the Environmental Statement (ES).</p>
	<p>As noted above, we provided advice on the Interim Hydrology and Hydraulic Modelling Report in June 2015 and we had a number of queries and areas where clarification would have been useful.</p> <p>We have not received any further information, and so we just highlight that those matters previously highlighted should be taken into account when developing the modelling work going forward to the next, more detailed stage.</p>	<p>An update on the hydraulic modelling was provided at the October 2015 ESG meeting.</p> <p>Further developments will be discussed with ESG during the Stage 3 assessment period and reported in the Stage 3 EIA and supporting FRA.</p> <p>We will also provide a written response to close out SEPA's previous queries on the Interim Report.</p>	<p>A Stage 3 'Hydrology and Hydraulic Modelling Approach' report was developed with the ESG and issued to SEPA for review in November 2016.</p> <p>The modelling approach outlined in the report was accepted by SEPA and has been carried out to inform the EIA.</p> <p>Full details are provided in the Flood Risk Assessment - Appendix 11.3 to the ES.</p>
10. SUDS Design	<p>We require clarification regarding the statement on page 21 of Chapter 10 "Furthermore it is currently proposed that all SUDS features, including filter trenches, swales, ponds and basins, will be lined in order to maximise the treatment of potential pollutants".</p> <p>We have reviewed the guidance document "Chapter 3 – Water and Flooding - Appendix 3.1 – SUDS of the A9 Dualling Programme Environmental Design Guide", we have also reviewed the SUDS for Roads guidance and there is no mention of this requirement.</p> <p>We are not aware of any other agreement/ instruction to this effect.</p> <p>The use of lined SUDS would concentrate polluting material in one area instead of it being spread throughout the system for treatment by natural processes.</p>	<p>Lining of all SuDS features was (mis)understood as a SEPA requirement to maximise potential treatment through multi-stage facilities.</p> <p>However, we have checked back and the reference we have found is from an email on 15 Feb 2015 from SEPA to the A9 ESG which stated, "My only point, as raised at the meeting, was to line the first level of SUDS treatment to ensure the full volume gets 2 levels of treatment"</p> <p>The Stage 2 report will be revised accordingly.</p> <p>Alternative SuDS solutions will be further investigated at Stage 3.</p>	<p>The Stage 3 water quality assessment for alternative SuDS treatments (including filter drains and detention basins) found that potential impacts to groundwater were Medium or High risk throughout the Project 8 extent.</p> <p>This utilised GI information not available at Stage 2 and as such, the recommendation is to ensure that SuDS features are lined.</p>

Chapter/ paragraph reference	ESG Comment	Response at DMRB stage	
		Response/ update at Stage 2	Response/ update at Stage 3
		<p>Consideration will be given to techniques which offer potential to maximise dispersal rather than focusing pollution in one area.</p> <p>The preferred solution will recognise the need to achieve effective containment of accidental spillages.</p>	
	<p>Notwithstanding the above there may be instances where SUDS features do need to be lined, i.e. if there is a sensitive receptor in the area, contaminated land or to guarantee that the runoff receives a second/ third level of treatment, but we would not necessarily expect this to cover all SUDS features in standard conditions.</p> <p>I am more than happy to discuss this element in further detail with you by phone or at the ESG.</p>	<p>Comment acknowledged - see response above.</p> <p>Further work will be carried out regarding sensitive receptors upon completion of habitat survey work and information provided by SFB.</p>	See above.
Waste/ Materials/ Peat			
Section 9.3.2	<p>A previous peat survey has been carried out but this was limited in its scope and only identified soft land rather than confirming the presence of peat.</p> <p>A worst case scenario has assumed that this is all peat.</p> <p>The initial indicative investigations show that the peat depth reaches 2.9metres.</p> <p>The Stage 2 report has been purely a desk based exercise and no intrusive ground investigations or testing have been carried out.</p> <p>Potentially contaminated sites have been identified within 50metres of the road, mainly consisting of made ground, infilled quarries and also radon contaminated sites.</p> <p>Local Authority Contaminated land officers may have further information on these sites.</p> <p>SEPA advise that any suspect contaminated soils are subject to an agreed quarantine procedure (to protect receptors).</p>	<p>Comment acknowledged.</p> <p>Regarding peat, additional survey work has been recommended to better and further inform Stage 3.</p> <p>Regarding potential contaminated land, additional consultation with the relevant Local Authority contaminated land officers will be undertaken for Stage 3.</p> <p>This is noted as a recommendation within Section 9.7 of the Stage 2 report, together with recommendations on the need for appropriate materials management (including contaminated soils) planning, handling, storage and re-use in Section 9.5.2 and 9.6.</p> <p>These recommendations would also extend to include relevant quarantine procedures as needed.</p> <p>This comment is therefore aligned to the CFJV recommendations within the Stage 2 report.</p> <p>Updates to some wording in relevant sections may provide additional clarity on this matter.</p>	<p>Several peat probing, sampling and walkover surveys and additional GI have been undertaken to support the DMRB Stage 3 design development and EIA process with regards to peat and contaminated land.</p> <p>Details of the findings of these are presented in Chapter 10 of the ES and associated appendices.</p>

Chapter/ paragraph reference	ESG Comment	Response at DMRB stage	
		Response/ update at Stage 2	Response/ update at Stage 3
Section 9.4.2	<p>We have concerns that one of the potential impacts raised in 9.4.2 is that soils and made ground that may potentially be contaminated may be stored and cause a risk to underlying soils/ groundwater.</p> <p>It is also noted that these materials may be moved for reuse elsewhere. SEPA would expect, at Stage 3, that ground investigations would highlight these areas and care would be taken to ensure that this does not happen.</p>	<p>Comment acknowledged.</p> <p>With regards contaminated materials; as stated in Section 9.4.1, impacts are described without mitigation and specifically in this case, Section 9.4.2 raises these as potential impacts from contaminated materials only "if (they are) not assessed or if (they are) used incorrectly".</p> <p>CFJV concur that for Stage 3, ground investigations would further inform potential areas of concern and better enable appropriate materials management (including contaminated soils/ water), planning, handling, storage and re-use to be outlined - as per recommendations in Section 9.5.2, 9.6 and 9.7 of the Stage 2 report.</p> <p>This comment is therefore aligned to the CFJV recommendations within the Stage 2 report. Updates to some wording in relevant sections may provide additional clarity.</p>	<p>Additional GI has been undertaken to support the DMRB Stage 3 design development and EIA process with regards to contaminated land, identifying only incidental and localised areas of made ground to be present.</p> <p>Soil chemical testing and groundwater chemical testing have also been undertaken and considered in the impact assessment presented in Chapter 10 of the ES and associated appendices.</p> <p>Where appropriate mitigation measures in relation to materials, their storage and re-use, have also been provided.</p>
Section 9.5.2	<p>Very minimal mitigation measures have been listed in the Stage 2 Report.</p> <p>If contamination is found through the ground investigation works, mitigation measures should be included in the Stage 3 report.</p> <p>Section 9.5.2 does state that this would be carried out on a site specific basis which seems appropriate.</p> <p>With regards to contaminated land we would refer the applicant to SEPA guidance "Land Remediation and Waste Management Guidelines".</p> <p>Mitigation measures for peat are not detailed as ground investigation is still to be carried out.</p> <p>The applicant does however refer to the guidance 'Development on Peatland: Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and the Minimisation of Waste' and the development of a peat management plan which is welcomed.</p> <p>As stated in 9.5.2 avoidance is the most beneficial option; however, the applicant also mentions adjusting planned earthworks and micro-siting would also be a beneficial option.</p>	<p>Comment acknowledged.</p> <p>Minimal mitigation measures only described in outline for peat / potential contaminated land as the design has not been sufficiently developed and insufficient information presently exists for these to be defined in detail.</p> <p>This is typical for DMRB Stage 2.</p> <p>CFJV acknowledge references to SEPA guidance and again, the comment is aligned to the recommendations within the Stage 2 report.</p> <p>Notwithstanding, updates to some wording in relevant sections may provide additional clarity as above.</p> <p>The Stage 3 report will set out all required mitigation in detail.</p>	<p>Mitigation measures for DMRB Stage 3 have been further developed based on the findings of additional surveys and GI related to peat and contaminated land where necessary.</p> <p>This is specifically highlighted within Chapter 10 of the ES where relevant and, in relation to peat, an Outline Peat Management Plan has been developed for the Proposed Scheme with cognisance of the guidance in 'Development on Peatland: Guidance on the Assessment of Peat Volumes, Re-use of Excavated Peat and the Minimisation of Waste' and presented in Appendix 10.6.</p> <p>Throughout the DMRB Stage 3 iterative design development process for the Proposed Scheme described in Chapter 4 of the ES; a number of environmentally-led workshops considered each aspect of the developing design and made recommendations for certain features to be included or aspects of the design to be reconsidered.</p> <p>Peat was afforded significant consideration throughout this process and the layout, positioning and extents (micro-siting) of several infrastructure elements has been altered in order to minimise peat disturbance.</p>

Chapter/ paragraph reference	ESG Comment	Response at DMRB stage	
		Response/ update at Stage 2	Response/ update at Stage 3
Section 18.6	<p>Section 18.6 states that there is likely to be a material deficit on site and significant imports will have to be made, however this does state that it may be possible to use surplus materials from other projects.</p> <p>The applicant would need to ensure either the materials were stored for use under a suitable exemption, or that TS and SEPA come to an agreement regarding use of waste between projects.</p>	<p>Comment acknowledged.</p> <p>The potential requirement for waste management licensing and exemptions from licensing is acknowledged as standard and flagged as a general possible requirement to ensure policy compliance in Chapter 18 and 19 and Appendix 19.1.</p>	<p>Priority has been given to defining the route alignment and levels to minimise the cut fill deficit. The Stage 3 design now records a slight overall material surplus for the Proposed Scheme.</p> <p>The potential requirement for waste management licensing and exemptions from licensing (associated with re-use of fill material between the Glen Garry to Dalraddy (Central Section) projects, within the overall dualling programme, and in other development sites in the study area)) is acknowledged as standard and flagged as a general possible requirement to ensure legislative and policy compliance in Chapter 18 and 19 and Appendix 19.1.</p>
Water quality			
Table 10.1	<p>We agree with most of the sensitivity criteria in Table 10.1 but we are concerned with the use of the RBMP classifications under water quality as a sensitivity indicator as a watercourse with a “high” classification could have some capacity to accept some polluting discharge without it having an effect on its classification where as a watercourse with a “poor” classification may have no capacity to accept a polluting discharge before falling into the “bad” classification.</p> <p>Depending on what is meant by sensitivity, a watercourse classed as “poor” could be seen as highly sensitive.</p> <p>We do not want to see any deterioration in classification and there is an opportunity to possibly improve the classification of some watercourses by capturing currently untreated runoff from the existing A9 and passing it through SuDS measures or to improve morphology at crossing points etc.</p>	<p>Comment noted</p> <p>- avoiding further deterioration of watercourses was considered in the original assessment and further consideration will be given to the approach to assigning watercourse sensitivity during DMRB Stage 3.</p> <p>The approach adopted for Stage 2 does follow recognised DMRB guidance (HD45/09) and is line with the latest SuDS Manual (CIRIA C753).</p>	<p>The Stage 3 sensitivity criteria has gone through a process of refinement with the other A9 Dualling design consultants with the aim of consistency across projects.</p> <p>Change in WFD classification is provided as a potential measure of magnitude of impact for the water quality assessment. Deterioration in classification is also considered in the hydromorphology impact assessment in Chapter 11.</p>
Table 10.1 and 10.2	<p>There are comments in Tables 10.1 and 10.2 which identify the sensitivity and impact aspects of aquifers being cut off etc., and the potential effects of this on surface water but there are no specifics.</p> <p>This will need to be addressed better at Stage 3 when the impact of cuttings etc. for the chosen route can be assessed and mitigation measures detailed.</p> <p>Table 10.2 seems to have adequately assessed the various impacts, including not only the detrimental impacts but also the impacts which may have a beneficial effect, and is acceptable.</p>	<p>Potential impacts (adverse and beneficial) on surface groundwater flows for the preferred route alignment option including relating to earthworks cuttings, will be assessed and reported during DMRB Stage 3</p>	<p>Groundwater flows are considered as part of Chapter 10 (Geology, Soils and Groundwater).</p> <p>Groundwater quality and potential impacts as a result of the Proposed Scheme are assessed within the Road Drainage & Water Environment chapter as per the DMRB HD45/09 guidance.</p>
Section 10.5	<p>It is stated that “The proposed drainage systems provide two levels of treatment to the mainline alignment and capacity to attenuate flows.” so we presume they are no barriers to achieving this.</p> <p>We will however reserve the right to request a third level of treatment where we deem it necessary in sensitive areas and sections of the road such as lay-bys which may present a higher pollution risk.</p>	<p>Comment noted - further consultation re. application of appropriate assessment methods and treatment provision will take place prior to DMRB Stage 3.</p>	<p>HAWRAT assessments have highlighted drainage networks that fail routine runoff with two levels of treatment and require a third level (enhanced) to produce a PASS result.</p>

Chapter/ paragraph reference	ESG Comment	Response at DMRB stage	
		Response/ update at Stage 2	Response/ update at Stage 3
	We note the use of HAWRAT to determine treatment levels etc., but where we think treatment levels are not sufficient to protect the water environment we will, after consulting and taking advice from all stakeholders, take the precautionary approach and request any addition levels we deem necessary to achieve the desired level of protection.		
Section 10.7.3	<p>We welcome the commitment in Section 10.7.3, and also shown in the sections provided in the drawings provided with Volume 2, for watercourse crossing to be upsized to accommodate a 200 year flood event although the effects of doing so will need to be modelled to assess the impact downstream. It is presumed that the Stage 3 Report will be used to support applications under CAR for engineering works etc. and it will contain more site specific information regarding watercourse crossing and other engineering works associated with the preferred route.</p> <p>From what has been provided in the Stage 2 Report there are no concerns with the proposals for each of the routes.</p> <p>The reports also commits to following SEPA's hierarchy of preferred structures for watercourse crossing i.e. starting with the preferred option of a single span structure and progressing to the least preferred option of a closed culvert.</p>	<p>Comment acknowledged - no action required at Stage 2.</p>	<p>The Stage 3 modelling assessed the potential impacts on downstream receptors as a result of upsizing crossings to convey a 200yr flood event.</p> <p>Where adverse impacts have been identified, the decision to not upsize to convey a 200yr flow at specific locations has been incorporated into the Proposed Scheme design as embedded mitigation.</p>
Chapter 10	<p>We agree with the majority of the Assessment in Chapter 10 but the report has assumed, (see comments in covering e-mail), under runoff to groundwater that all SUDS will be lined and therefore they have not assessed the effects of runoff on ground water due to the assumption that all SUDS will be lined. This will need to be fully addressed and assessed in Stage 3.</p> <p>We agree with what is proposed but the matter of the impacts from spillages and runoff on ground water will also need to be addressed and assessed.</p> <p>All potential impacts from surface water runoff, flooding and fluvial geology appear to have been considered but not for groundwater and spillages it has been incorrectly assumed (See comments in covering e-mail) that all SUDS will be lined.</p> <p>However, the impacts on the water environment from a water quality perspective are common to all route options and the spillages and groundwater aspect should and must be addressed and assessed at Stage 3.</p> <p>Given the narrow corridor available all routes will have a similar impact on water quality during operation/use and mitigation will be via appropriate SUDS measures.</p> <p>The main impacts on water quality usually occur during the construction phase and it will be how the construction work is carried out which, if not controlled correctly, may have the greatest impact on the water environment.</p> <p>To ensure that sufficient and appropriate mitigation measure, to prevent water pollution from construction site runoff, are in place throughout the construction phase we would request that these measures are considered at Stage 3 and are sufficiently conditioned or provided for in the tendering process.</p>	<p>Comment acknowledged - Stage 3 assessment will include assessment of all potential impacts on groundwater as well as impacts on the water environment during construction stage.</p> <p>Mitigation measures set out in the Stage 3 report will be included in the 'schedule of commitments' that will be provided for the tendering process.</p>	<p>Potential impacts from spillages and routine runoff to groundwater have been assessed following HD45/09 guidance.</p> <p>The Standard Mitigation Clauses included in Chapter 11 describe best practices that should be followed to ensure no adverse impacts to the water environment occur during construction-phase.</p>

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Flood risk			
Figure 10.8	<p>Figure 10.8 of the report showing the flood extents and Section 1 of the project, the flood outline does not extend right to the end of the section (and doesn't include the tie-in length).</p> <p>We note that in the information we received earlier in the year, a flood extent was shown for the full River Truim reach but the information has not been provided in the Stage 2 report information.</p> <p>Secondly, some breaks or joins in the flood extent are apparent on the flood extent figures.</p> <p>This may be an issue with the underlying topographic information or the approach taken to modelling the river in reaches, but it may raise queries with the model outputs.</p> <p>The notable breaks can be seen on Figure 10.8 (Section 2) between Hydro ID points 79 and 80 and on Figure 10.10 (Section 3) close to the match line above Hydro ID point 106.</p>	<p>Methodology included in the Interim Report was included in the appendices, however this was edited as deemed too descriptive for DMRB Stage 2. The methodology is consistent with that previously reported in the Interim Report.</p> <p>The River Truim flood extent provided in Figure 10.8 covers the length of Project 8</p> <p>- consideration will be given to including the flood extents for the full length of the River Truim within the Stage 3 report.</p> <p>Some of the breaks in flooding extents were a result of coarse data from two differing datasets.</p> <p>The output was untidy but was not considered to have an adverse effect on the information itself.</p> <p>This will be refined at DMRB Stage 3 with more detailed channel and floodplain surveying.</p>	<p>The Stage 3 flood model has been refined by additional survey work of channels and structures throughout the Project 8 extent.</p> <p>The modelling has also been refined as outlined in the Hydrology & Hydraulic Modelling Approach report provided to SEPA for review in November 2016.</p>
Wetland ecology			
Section 11.5.1	<p>It is mentioned specifically that appropriate mitigation will be agreed with SNH, however we will request mitigation for all GWTDEs, unless Stage 3's further hydrological assessments highlight/ rule out any impacts.</p>	<p>Comment acknowledged.</p> <p>No action required at Stage 2.</p> <p>Will be considered at Stage 3.</p>	<p>Relevant habitat mitigation is considered in Chapter 12 Ecology and Nature Conservation of the ES; Specific mitigation in relation to hydrogeology is considered in Chapter 10 Geology, Soils and Groundwater</p>
Chapter 11	<p>Sufficient detail for wetland habitats identified has been provided, they are being mapped accurately and that unavoidable impacts can be dealt with, where possible, during mitigation design at Stage 3</p> <p>The NVC survey that is proposed will clarify GWTDEs more accurately.</p>	<p>Comment acknowledged.</p> <p>No action required at Stage 2.</p> <p>Will be considered at Stage 3.</p>	<p>NVC has been carried out to within at least 100m of the Proposed Scheme and current SEPA guidance has been used to highlight NVC that is indicative of potential GWDTE.</p> <p>Where possible, additional analysis of the likely groundwater dependency of potential GWDTE areas has been undertaken and an assessment undertaken following this to inform potential hydrogeological impacts on these in Chapter 10 (Geology, Soils and Groundwater).</p>
	<p>It appears there will be a number of watercourse crossing extensions and/ or new crossings but each will need to be considered on a case by case basis.</p> <p>The report states that river reconnaissance surveys will be undertaken for the Stage 3 report and this is appropriate for the nature of the work.</p> <p>Designs should be based on the output from these surveys.</p> <p>There appear to be no major issues regarding river engineering.</p>	<p>Comment acknowledged.</p> <p>No action required at Stage 2.</p> <p>Will be considered at Stage 3.</p>	<p>Fish habitat assessments carried out.</p> <p>Ecologists worked in conjunction with designers to incorporate natural bed material in required watercourses to allow fish passage.</p>

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Scottish Natural Heritage (SNH)			
9. Geology			
General (peat)	<p>Suggestion for DMRB stage 3.</p> <p>The design option that positioned Suds on deep peat, as currently indicated in the drawings, are likely to have significant impact, even if there is a recommendation for lining and avoidance of direct discharge are followed.</p>	<p>Comment acknowledged and agreed, this applies to option 2a - c and 3a - b which have SuDS features positioned in presently inferred peat areas.</p> <p>Consideration will be given to this at Stage 3 and in the design.</p>	<p>Since DMRB Stage 2, several peat probing, sampling and walkover surveys and GI have been undertaken to support the DMRB Stage 3 design development process and EIA with regards to peat.</p> <p>The findings of the assessments have been afforded significant consideration in development of the design and in the layout and positioning of infrastructure - including SuDS basins.</p>
General (peat)	<p>Because the methodology used for the peat probing exercise is not included in report, it is not clear what is being represented on the peat map and the basis of the impact assessment.</p> <p>We understand that the peat probing was conducted as a reconnaissance survey focussing on areas mapped as NVC mires types.</p> <p>Only the presence or absence of peat depth greater than 50 cm was recorded in these areas. This presumes that no peat will be found under other vegetation types.</p> <p>Peat soil (>50 cm of peat) can be associated with other types of vegetation following land use change or degradation of peatland habitats.</p> <p>There is also no information of the density of sampling which will be important to evaluation the short scale variation in peat depth in complex landscapes.</p> <p>As we have no information on the full extent of the areas surveyed, the absence of peat on the map could be either because none was found or because the areas was not surveyed.</p> <p>If the same approach was to be used for other section of the A9 dualling, we will like to see on the map the envelop of all survey or legend for area surveyed by showing no peat or no peaty soil.</p> <p>The NVC probing threshold should be extended to include other peatland habitats types (as defined in SH CR701 - http://www.snh.org.uk/pdfs/publications/commissioned_reports/701.pdf) and greater consideration should be given to information provided by published soil maps.</p> <p>This assessment overly relies on BGS drift map with only record peat deposition deeper than 1m.</p> <p>By contrast with BGS map which does not show any peat in this section of the A9, the 1:250,000 scale soil map (http://www.soils-scotland.gov.uk/data/soil-survey/) for the same area show the presence of basin and valley peat (north section 2) and complex soils with peat and peaty soils.</p> <p>Also, please note that this quick assessment method cannot be seen as a</p>	<p>Comment acknowledged and suggested updates to the report would include addition of the peat probing methodology and basis for this.</p> <p>The inclusion of probing points and soft-ground depths identified to the drawings will be added for Stage 3, together with the results of additional work that is able to be progressed.</p> <p>NVC mapping is currently being undertaken and extended to cover other potential peat habitat areas based on the initial Phase 1 work and peat survey work will also be recommended to be extended for the same, to further inform its presence, extent and distribution (as recommended within the Stage 2 report) and as far as is practicable for Stage 3.</p> <p>The Stage 2 report acknowledges its limitations with regards desk-based information in Section 9.2.10 and is clear that additional information is required, while noting areas of peat may be less or more extensive.</p> <p>Notwithstanding, the SNH comment is acknowledged and the suggestion is that the report can be adjusted in relevant sections to consider the additional source information put forth.</p> <p>The recommendations for ground investigation and additional work to clarify the presence of peat and its extent are in alignment with SNH in that desk-based and 'quick assessment' information are insufficient.</p> <p>More detailed works for this are planned to be progressed and information available from this at</p>	<p>Since DMRB Stage 2, several peat probing, sampling and walkover surveys and GI have been undertaken to support the DMRB Stage 3 design development process and EIA with regards to peat.</p> <p>Survey areas and extents for each phase of works were identified and informed by published British Geological Survey and James Hutton Institute soil mapping, previous probing or GI information available at that time, and inferences of potential peat presence based on Phase 1 Habitat and National Vegetation Classification (NVC) Surveys.</p> <p>As a result, the level of understanding in relation to peat presence, depth and characteristics for the Proposed Scheme has increased significantly and is presented in Chapter 10 (Geology, Soils and Groundwater) and Appendix 10.1 (Peat Survey Information), Appendix 10.5 (Preliminary Peat Landslide Risk Assessment) and Appendix 10.6 (Outline Peat Management Plan) of the DMRB Stage 3 ES.</p> <p>Full details of the methodologies used for each stage of survey, their findings and relevant maps of depth findings in relation to peat and peaty soil are also provided.</p>

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	substitute for full peat survey required in DMRB phase 3.	<p>the time of preparation will be used to inform Stage 3.</p> <p>Discussions will be held with SNH on the scope of peat survey work to clarify their requirements.</p> <p>In addition, clarifications on the boundaries of the Drumochter Hummocky Moraines / Alluvial Fans will be discussed - however these can be assessed based on inferred boundaries within updated report.</p>	
General (peat)	<p>Suggestions for more detail at DMRB 3.</p> <ol style="list-style-type: none"> Detailed map of peat depths (not limited to area under mire vegetation but extended to the full area of potential development). Detail of quantity of acrotelmic, catotelmic and amorphous peat excavated and proposed re-use of the material. All spacial information should be supplied as maps and tabulated geo-referenced datasets. 	<p>Comment acknowledged.</p> <p>The suggestions for more information are aligned to the recommendations in Section 9.5 of the Stage 2 report, for additional ground investigation work and information to better inform peat impacts.</p> <p>Stage 2 report can be updated in some relevant recommendation sections for additional clarity on these aspects.</p> <p>SNH's list is covered in the A9 Dualling Design Guide.</p>	<p>As part of the DMRB Stage 3 ES, a detailed map of peat and peaty soil depth has been produced for the vast majority of the Proposed Scheme permanent and temporary works boundaries and proposed infrastructure elements.</p> <p>Details of the acrotelm and catotelm quantities estimated to be excavated and proposed potential re-uses are detailed in Chapter 10 and Appendix 10.6 (Outline Peat Management Plan), while all probing and characteristic data is presented in Appendix 10.1 (Peat Survey Information).</p>
General (peat & route options)	<p>Minimising the loss of peat in the sections 2 and 3 where there are three and two alignment options and for the five junction options should be a key consideration at DMRB 3.</p> <p>Notwithstanding the points raise in row 11 above regarding the completeness peat survey, route options 2c & 3b appear to encompass a greater extent of peat and therefore are least preferred and, the land envelope for junction option 31 appears to encompass the least extent of peat.</p>	<p>Comment acknowledged and agreed</p> <p>- this is in alignment with outline mitigation stated in the Stage 2 report and the advice provided for inputs into the mainline and junction options design workshops (understood to be ongoing) with regards mainline options 2c and 3b, and junction option 31.</p>	<p>Throughout the DMRB Stage 3 iterative design development process for the Proposed Scheme, described in Chapter 4 of the ES, a number of environmentally-led workshops considered each aspect of the developing design and made recommendations for certain features to be included or aspects of the design to be reconsidered.</p> <p>Peat was afforded significant consideration throughout this process and the layout, positioning and extents of several infrastructure elements have been altered in order to minimise peat disturbance.</p> <p>These changes and the process were informed by the progressive collection of information related to peat via probing/ sampling surveys, ecology surveys, GI and walkovers.</p> <p>An Outline Peat Management Plan has subsequently been prepared for the Proposed Scheme and was developed as part of this iterative and informed process, throughout which avoidance and minimisation, followed by re-use were the core management principles adopted as means of managing peat excavated during construction.</p>

Chapter/ paragraph reference	ESG Comment	Response at DMRB stage	
		Response/ update at Stage 2	Response/ update at Stage 3
10. Road Drainage and the Water Environment			
10.2.6	<p>Under the sub heading "Other potential impacts" page 9.</p> <p>The water in the SSE aqueduct may need to be diverted during the construction period? If this is the case an assessment of the potential implications for the qualifying features of the River Spey SAC should be addressed.</p> <p>In particular the implications of transferring water from the aqueduct in to a tributary of the River Truim.</p> <p>Additionally, any changes to the existing route alignment of the aqueduct should consider potential implications on loss of peatland.</p>	<p>Some additional descriptive text can be added to Chapter 10 of the Stage 2 report to acknowledge potential impacts on the Allt Cuaich during construction (i.e. short-term impacts).</p> <p>Further modelling work can be undertaken at Stage 3 if the preferred option requires diversion of water in the SSE aqueduct.</p> <p>Potential impacts can be assessed using Ecology/Hydrology and Morphology inputs and mitigation measures proposed.</p> <p>Survey work and mapping of the surrounding area, including the aqueduct, has now been carried out. This information will be available to assess potential impacts in relation to loss of peatland.</p>	<p>Potential impact of flow diversion is addressed in construction stage impacts and a specific mitigation item related to the aqueduct diversion has been included in Chapter 11.</p>
11. Ecology & Nature Conservation			
11.3.4	<p>Second paragraph on page 8.</p> <p>Please add Allt Coire Chuirn to this list of sites because the boundary of the SAC on this watercourse is only 30m from the existing A9.</p>	<p>Allt Coire Chuirn is in Project 7 extents so will be added to Project 7 report</p>	<p>Addressed at Stage 2</p>
11.4.1	<p>First paragraph. Suds protection for the aquatic environment will provide a significant benefit from A9 dualling and may be worth highlighting here.</p>	<p>The Stage 2 report will be updated to highlight this.</p>	<p>Addressed at Stage 2</p>
11.4.3	<p>Under the sub heading of Atlantic salmon and freshwater pearl mussel, page 15. We agree with the content of the second paragraph in relation to habitat but potential disturbance to Atlantic salmon should be considered in DMRB state 3.</p>	<p>The consideration of impacts of disturbance to salmon will be included at DMRB 3 and this approach will be clarified in the DMRB2 report</p>	<p>Disturbance to Atlantic salmon has been considered in both the EIA and HRA at DMRB Stage 3.</p> <p>A fish habitat assessment was undertaken in December 2016 to identify and characterise fish habitat within proximity to major watercourse crossings (i.e. on 1:50,000 scale OS map).</p> <p>The findings of this assessment have informed the EIA and HRA.</p>

Chapter/ paragraph reference	ESG Comment	Response at DMRB stage	
		Response/ update at Stage 2	Response/ update at Stage 3
11.4.4	<p>Please add " and geomorphology outwith section 8" at the end of the second sentence in the paragraph under the sub heading of "Drumochter Hills SSSI" on page 17.</p> <p>It would help to cross reference Table 11-6 in this chapter with Table 9-11 in Chapter 9 because the omission of reference to geomorphological feature interest in this SSSI is repeated again at section 11.4.1 (page 27) and section 11.4.12 (page 29).</p>	Chapter will be updated to recognise the presence of the Allt Dubhaig within the Drumochter Hills SSSI; although not ecologically or hydrologically connected with the Project 8 extent.	Addressed at Stage 2
Habitats Regulations Appraisal (HRA)			
HRA	<p>Section 2.1, Page 5, Table 3, please add "Potential for temporary changes to water quality/ suitable habitat via sedimentation at the construction phase" to the row titled "Justification for screening conclusion" because this effect could negatively influence the second and fourth conservation objectives for otter.</p> <p>Please amend all relevant sections that follow to include this issue.</p>	This will be addressed in revised Stage 2 HRA report.	Addressed at Stage 2
HRA	<p>Section 2.2, Page 6, Table 4, second bullet points in the column "Required Mitigation Summary" please add 'spawning period' to the rows for Atlantic salmon and sea lamprey.</p>	This will be added to the DMRB 2 HRA report	Addressed at Stage 2
HRA Appendix C	<p>Drawings 2.2-2.7 show fish barriers.</p> <p>It would be helpful at DMRB stage 3 to explain what these barriers are.</p> <p>For example, are they natural or man made barriers?</p> <p>and do any have a fish-pass?</p> <p>At this stage it would be helpful to indicate whether they are barriers to either or both Atlantic salmon or sea lamprey.</p> <p>Furthermore, it would be helpful to carry out an options appraisal in consultation with SEPA, SFB and SNH on whether there are conservation benefits to remove, retain or provide a fish-pass to any man made barriers for mitigation purposes.</p>	SNH recommendations will be considered at DMRB Stage 3.	<p>The following information has been included within the DMRB Stage 3 HRA:</p> <p>Potential barriers to fish migration (SEPA fish barriers) have been identified in the River Truim adjacent to the Proposed Scheme:</p> <ul style="list-style-type: none"> • ch. 23,700 (downstream of the junction at Dalwhinnie) <ul style="list-style-type: none"> – described in SEPA dataset as a "weir, dam or other manmade structure which is passable under certain conditions. No fish pass present." • ch. 22,650 (downstream of the junction at Dalwhinnie) <ul style="list-style-type: none"> – identified in SEPA dataset as a weir, and described as a "weir, dam or other manmade structure which is passable under certain conditions. No fish pass present." • ch. 21,900 (upstream of the junction at Dalwhinnie) <ul style="list-style-type: none"> – identified in SEPA dataset as a "dam", and described as a "weir, dam or other manmade structure which is passable under certain conditions. Fish pass present" • in the Allt Cuaich tributary, downstream of the A9 at ch. 26,050, identified within the SEPA dataset as a "Screen", and is described as being an "impassable weir, dam or other manmade structure"

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			The fish barriers are generally out with the Proposed Scheme footprint and there was no opportunity to consider their removal or retention.
Cairngorms National Park Authority (CNPA)			
Chapter 17 All Travellers	<p>The findings reported in Chapter 17: Effect on All Travellers have been reviewed and we agree they are, overall, an accurate representation of the existing NMU resource and how it might be impacted by the various junction/route options presented.</p> <p>Mainline and junction options and impacts have been considered in detail and we can report that in regard to NMU interests no alignment option or junction configuration is preferred over another.</p> <p>The following factors should be given careful consideration as Stage 3 proposal develop however:</p> <ol style="list-style-type: none"> 1. Ref Junction Drawings 23, 26,27, 29 & 31. With regard to both Junction Option 31 and stopping up of the existing junction of the A9 and the A889 an appropriate substitute/layout for the existing of informal roadside parking area close to the junction of NCR7 and the A889 should be examined. 2. Similar considerations apply at the existing junction of the established hill access route leading to Carn na Caim and A'Bhuidheanach Bheag and the A9 where parking is available at the existing bellmouth. 3. Substitute arrangements for existing parking provision at Cuaich for NMU visitors will be required, this being an establish setting-off point for approaching a range of hills including the Munro Meall Cuaich. Segregated, fully off-carriageway is advocated with consideration given to suitability for winter use in respect of visits for mountaineering and skiing. 4. Ref Drawing 17.1. Enhanced lay-bys should be located and configured so as to provide facilities catering for NMU access, such as off-carriageway parking and connectivity with the existing recreational path network. 5. It is noted that NMU crossings of the existing A9 carriageway (under/over) have not been identified or tabulated in the report, they have also not been identified on the baseline maps. Although some mention is made in the chapter text this information would have been preferred as an independent point of reference. 	<p>Points 1 - 4 will be considered as we move into Stage 3.</p> <p>Point 5 will be amended within the Stage 2 report - crossing points will be added.</p> <p>This is something we had already picked up and have included in Project 7 so agree these are required.</p>	<p>Stage 2 comments 1-5 have been addressed as follows:</p> <ol style="list-style-type: none"> 1. Additional areas for informal parking have been explored through the design process. Informal parking at Dalwhinnie is not essential mitigation for NMUs or vehicle travellers, however there is the possibility for informal parking around this area as no further land would be required. However, the status of the de-trunked A889 would be required before this could be confirmed. 2. A proposed southbound lay-by at approximate ch. 20,600 creates a link to the Munro track leading to A A'Bhuidheanach Bheag and Carn na Caim (NMU3). his is an improvement on the existing situation of a northbound lay-by which has created an at-grade crossing. This is shown on the Chapter 9 Assessment Drawings. 3. It is acknowledged that lay-bys at Cuaich are used by hill walkers accessing Munro walks in and around this area. The Proposed Scheme incorporates lay-bys within this area at ch. 24,500 and 27,500 to replace the existing provision. New left in left out access provides safe access off the A9 to Cuaich, with a retained underpass for estate access and NMUs eliminating the risk of crossing the A9 at-grade. 4. lay-bys are indicated within the Proposed Scheme with a minimum of 4m separation between the carriageway and parking area, with recreational links to wider NMU access where possible. 5. Existing and proposed Crossing Points are set out within the Chapter 9 text and on Drawings 9.1-9.6 at Stage 3.

Chapter/ paragraph reference	ESG Comment	Response at DMRB stage	
		Response/ update at Stage 2	Response/ update at Stage 3
Historic Environment Scotland (HES)			
Cultural heritage			
Chapter 14 section 14.4 and paragraph 14.4.13	I note the statement towards the end of page 10 that no adverse effects on nationally protected sites are envisaged from the mainline options. However, I note that a direct impact has been identified in the description of junction option 31. HES's preference would be for those options which avoided direct impacts on these assets and for those which impacts on setting can be kept to a minimum.	Comment acknowledged - this can be dealt with at Stage 3 if Junction 31 is selected as the preferred option.	The Proposed Scheme will have an adverse impact on the setting of Wade Bridge (Asset 8.3; Grade II Listed Building). The embankment height is to be kept at a minimum within the vicinity of the bridge. This will lower the impact of the Proposed Scheme on the asset. The Proposed Scheme will have an adverse impact on the setting of Crubenmore Old Bridge (Asset 8.13; Grade II Listed Building). Any vegetation and trees which currently screen the bridge from the A9 are to be replaced if possible in order to screen the Proposed Scheme. This will lower the impact of the Proposed Scheme on the asset.
Section 14.5	I note the information provided on the approach to mitigation and enhancements. I welcome the approach set out, in particular the commitment to consider how design solutions can avoid or reduce direct impacts. I note the information provided on how impacts on setting could be reduced and would advise that any landscape design measures should be considered on a case by case basis as they may themselves also have an impact on the asset. Design solutions should also be considered as a way of seeking to reduce impacts on setting.	Comment acknowledged - a detailed mitigation strategy will be developed at Stage 3, and this will be done working closely with CFJV Landscape specialists.	Design solutions to reduce impacts on the heritage assets have been incorporated as part of Stage 3.
Section 14.6	I note the comparative assessment provided here and in table 14.9. As noted above, our preference would be for options which avoided impacts on the site or setting of the scheduled Wade Bridge.	Comment acknowledged - as above	Wade Bridge has been descheduled. As above.
Section 14.7	I note the scope of the DMRB stage 3 assessment. It would be helpful if the resulting Environmental Statement clearly explained how measures to avoid or reduce impacts had been taken into account.	Comment acknowledged. No action required at Stage 2.	Embedded and additional mitigation has been outlined in the ES Chapter 15.

Chapter/ paragraph reference	ESG Comment	Response at DMRB stage	
		Response/ update at Stage 2	Response/ update at Stage 3
The Highland Council (THC)			
Cultural heritage			
Table 14.1, Table 14.4	I disagree with the classification of C listed buildings as being of Low value. I understand that this classification follows DMRB guidance however listed buildings are considered to be of higher value than other assets in this category such as for example, clearance cairns. Their classification as of Low value is not in line with SHEP that states listed buildings have 'special architectural or historic interest'.	Comment acknowledged - however, C listed Buildings are listed as being of Low Value in HA208/7, Annex 6, Table 6.1. Dialogue with THC can be held to discuss this prior to Stage 3.	The methodology is professional judgement guided by DMRB. The table outlined is DMRB guidance but each asset is assessed using professional judgement guided by the table criteria. If a Category C Listed Building is assessed to be of medium or higher value due to its qualities, it has been.
14.3.5, Table 14.7	Asset 8.9, Lechden shielings - I would argue that this well-preserved shieling group is of at least Medium value.	Comment acknowledged - this can be revisited at Stage 3.	Agreed and changed.
14.3.6, Table 14-8	Asset 8.13 and 8.14, Crubenmore Bridges - Both bridges are listed and so both are considered to be of Medium value.	Comment acknowledged - however, C listed Buildings are listed as being of Low Value in HA208/7, Annex 6, Table 6.1. Dialogue with THC can be held to discuss this prior to Stage 3.	Agreed and changed value of Asset 8.14 to medium due to association with renowned architects.
14.4.6	Impacts specific to Option 3a: Asset 8.9, Lechden shielings - I would argue that this well-preserved shieling group is of at least Medium value.	Comment acknowledged - this can be revisited at Stage 3.	Agreed and changed.

