

12. Ornithology

Introduction and overview of assessment

- 1.1. This chapter presents the assessment of the potential effects of the proposed Limekiln Wind Farm Resubmission ('the proposed development') on birds. The assessment was undertaken by Natural Research Projects (NRP) Limited.
- 1.2. This chapter is supported by the following Figure provided in Volume 2 (Figures) of this ES:
 - Figure 12.1 Ornithology vantage point locations and visibility 2015 – 2016.
- 1.3. In addition, there is one Confidential Appendix, which has been provided to Scottish Natural Heritage (SNH) and the Royal Society for the Protection of Birds (RSPB):
 - Confidential Appendix 12.A - Ornithology surveys September 2015 to April 2016 for Golden Eagles (Report and Confidential Figure 12.2).
- 1.4. The proposed development is identical in scale, physical dimension, location, and generation capacity to the original Limekiln Wind Farm proposal made in 2012 ('the original proposal'). A comprehensive assessment of the potential ornithological implications of a wind farm development at the proposed site was conducted to inform the original proposal's ES (original ES Chapter 12); more detail is provided in Chapter 1 Introduction. The scoping report for the proposed development (January 2016), determined that the ornithological assessment undertaken to understand the potential effects of the original proposal (original ES Chapter 12) would substantially be appropriate to understand and assess the potential effects of the proposed development under the EIA Regulations (2000) and Habitat Regulations (1994).
- 1.5. Scottish Government advice (Scottish Government, 2013: P. 19 - 20) has urged that resources should be focussed on significant issues in the EIA process, and that ESs should not be excessively long. SNH advice (SNH, 2013a) highlights:
 - *"Developers should not have to pay the cost and experience the delays involved in addressing issues that are obviously not significant."*
 - *"Environmental Statements should be compliant but proportional to the nature, scale and significance of effects; they should be rigorously edited, focused on key issues and should not contain so much detail that they distract readers from important environmental effects".*
- 1.6. In following the advice of Scottish Government (Scottish Government, 2013) and SNH (SNH, 2013a), and because the proposed development is identical in all ways to the original proposal, this assessment does not repeat the material which was presented in the original proposal's ES (original ES Chapter 12). (The original ES was also summarised by the scoping report submitted by the applicant in January 2016.)
- 1.7. The reader of this chapter should therefore consider, as material, the original ES which refers to the original proposal as it is identical to the proposed development. The original ES considered three receptor species (hen harrier,

merlin and golden plover) under the EIA Regulations. The original ES did not, however, treat the golden eagle as a receptor species: from information that has come to light since the original ES, the golden eagle should be considered as a receptor species. Therefore this present chapter for the proposed development provides novel relevant material for this species as a receptor, and undertakes the required assessment on the basis of this material. Hence, this chapter should be read (for golden eagle) in conjunction with the comparable original ES ornithology chapter 12 (for all other species). The present chapter also evaluates any changes in cumulative ornithological effects that may have been introduced since the original ES – for every species, including golden eagle. Separate to the EIA Regulations, the present chapter also updates information, additional to that presented in the original ES chapter, which is necessary for the competent authority (Scottish Ministers) to conduct a HRA across all classified sites that may be affected by the proposed development. Again, the present chapter should be read in conjunction with the original ES chapter (12: ornithology) to gain the full appreciation of the relevant information as regards HRA. In addition, the reader is also referred to consider the PLI Reporters' deliberations and their conclusions on the original proposal, which is identical to the proposed development: these deliberations involved every species (including golden eagle) and all relevant statutory instruments (Scottish Government, 2015).

- 1.8. The ES for the original proposal (Chapter 12: Ornithology) concluded that there were no significant adverse effects on birds for the purposes of the EIA Regulations and provided information required for the competent authority (Scottish Government) to undertake a Habitats Regulations Appraisal (HRA) under the Habitats Regulations (1994).
- 1.9. SNH (letter to Scottish Government, 1 March 2013) considered that there was sufficient information in the original proposal's ES to advise on ornithological effects with exceptions relating to insufficient information for a HRA on the condition and maintenance of a deer fence surrounding the estate. After clarification from the applicant which satisfied SNH's initial uncertainty over the deer fence, SNH had no objections on ornithological grounds under the EIA Regulations and advised that a HRA should conclude that there would be no adverse effects on the integrity of SPAs, subject to a planning condition related to the maintenance of the deer fence (letter to Scottish Government 31 July 2013).
- 1.10. The original proposal was the subject of a Public Local Inquiry ('the PLI') (Scottish Government, 2015) which included scrutiny of ornithological issues due to the PLI considering independent objections on a number of matters relating to bird interests.
- 1.11. In the prelude to the PLI and after the original proposal's ES was submitted, new information identified an active golden eagle (*Aquila chrysaetos*) territory within the Caithness and Sutherland Peatlands (CSP) SPA, and within the survey and assessment boundaries for this species (E Maughan: Written Submission to Limekiln s36 Wind Farm Inquiry, 8 May 2014). This territory was found to have been occupied since 2013, after a prolonged absence of decades.

- 1.12. SNH requested that Predicting Aquila Territory (PAT) modelling be undertaken for the golden eagle territory as regards the potential effect of the original proposal on what should be considered to be part of the CSP SPA interest. After an evaluation of the PAT model results supplied by the applicant, and the context of the original proposal as regards golden eagle habitat use, SNH stated that it had no objection to the scheme in light of the new information on golden eagles and considered that the original proposal would not have an adverse effect on the SPA's integrity (email to Scott Mackenzie, 3 July 2014).
- 1.13. Both the survey work and the conclusions of the assessment of the original proposal were scrutinised by the Reporters during the PLI, and found to be sufficient for the purposes of assessment under the EIA Regulations and the Habitats Regulations (1994). Due to the return of the golden eagles the Reporters considered the issue of whether further field surveys were necessary for this species and stated that no further field data would be required to allow an assessment of the proposal (Scottish Government, 2015).
- 1.14. Objections to the original proposal on ornithological grounds were thoroughly considered by the Reporters, including evidence on the change in the population of a key species (golden eagle) since the original baseline surveys, and they found no reason why the proposal should be refused on ornithological grounds (Scottish Government, 2015).
- 1.15. More specifically, the original ES concluded that construction, operation and decommissioning of the original proposal would not have a significant effect on birds under the terms of the EIA Regulations. The Reporters for the PLI (Scottish Government, 2015) agreed with the conclusions of the ES and the advice of SNH (letter to Scottish Government, 31 July 2013) for the purposes of the EIA Regulations, after considering independent objections on several ornithological issues.
- 1.16. Under the EIA Regulations, a key receptor species (high nature conservation importance: see classification criteria in original ES Table 12.2) not considered by the original ES is the golden eagle. Nevertheless, subsequent to the original ES, the specific issue of the golden eagle reoccupying a long-abandoned territory in 2013 and 2014 was scrutinised during the PLI. SNH concluded that they "*do not consider that there will be any disturbance caused by the construction or operation of the original proposal, due to the distance between the closest working area/turbine/development boundary and the nest location*" (email to Scott Mackenzie, 3 July 2014). The Reporters agreed with this conclusion and that there was no significant adverse effect on this species due to the original proposal for the purposes of the EIA Regulations (Scottish Government, 2015).
- 1.17. Separately, so far as the Habitats Regulations (1994) are concerned, information was presented in the original ES to allow the competent planning authority (Scottish Government) to conduct a HRA of potential effects of the proposed development under the Habitats Regulations (1994) on the integrity of three SPAs that were raised during consultation as potentially having "connectivity" with the proposed development. This information suggested that the proposed development will not have an adverse effect on the integrity of the SPAs. The original ES did not contain information on the golden eagle so far as the need for HRA. This species became a material consideration for the CSP SPA subsequent to the original ES's submission, as the PLI considered

in depth. (As noted above the present chapter will also supply further information for HRA on this species.)

- 1.18. During the PLI, however, additional information to inform a HRA also included golden eagle, due to the re-occupation of a territory in 2013 and 2014. SNH concluded that the original proposal would have a *“likely significant effect on golden eagles breeding in the SPA due to the ~0.5% loss of foraging range of the closest pair. This is however well below the figures for range loss known to have had an adverse impact on breeding eagles at other development sites”*. Their advice was therefore that *“the loss of range is so small and peripheral to the main modelled hunting range that it will not affect the viability of the population”*.
- 1.19. The Reporters agreed with SNH, after considering further evidence submitted by the applicant and independent objectors, and so their conclusion (Scottish Government, 2015) was consistent with SNH (see also SNH letter to Scottish Government 31 July 2013) in that the proposal would have no adverse effect on the integrity of the SPAs (including the golden eagle interest of CSP SPA).
- 1.20. In summary, as a result of the PLI (Scottish Government, 2015), the Reporters concluded that *“other than the potential impacts on wild land, we conclude that the proposal would not give rise to any detrimental impacts, either singly or cumulatively, sufficiently to outweigh the benefits of the proposal.”*
- 1.21. By direct inference, because the proposed development is identical to the original proposal, the conclusions from the intense scrutiny of potential ornithological impacts of the original proposal by the original ES and the PLI should also refer to the proposed development (including matters which came to light subsequent to the original ES). This has substantially informed the details of the assessment undertaken by this chapter.
- 1.22. As prefaced by the scoping report, nevertheless, the specific matter of the potential effects on golden eagles – as a key receptor species - is considered in this chapter, since this matter was not considered by the original ES (even though it was thoroughly evaluated by SNH and was also assessed by the PLI).

Methodology

Policy context and guidance

- 1.23. The Planning Policy Overview is presented in Chapter 4 of this ES.
- 1.24. The assessment follows the process set out in the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 and government guidance on the implementation of the Birds and Habitats Directives (SERAD, 2000). The process of evaluating the effects of the proposals on birds ensures that the consenting authority has sufficient information to determine whether the proposal (either alone or in combination with other plans or projects) is likely to have a significant effect on bird interests.

- 1.25. Where there is a potential effect on a bird population that forms part of the qualifying interest of an internationally or nationally designated site (or where such designation is proposed), i.e. Ramsar sites, Special Protection Areas (SPAs) and Sites of Special Scientific Interest (SSSIs) or a site that would meet the criteria for international or national designation, so far as possible, effects are judged against whether the proposed development could significantly affect the site population and its distribution. Where bird populations are not protected by such a designation (i.e. where the population does not meet the criteria for designation), then judgement is made against a more general expectation that the proposed development would not have a significant adverse effect on the overall population, range or distribution; and that it would not interfere significantly with the flight paths of migratory birds. In assessing the effects, emphasis is given to the national and regional populations of the species.
- 1.26. The following legislation has been taken into consideration during this assessment:
- The Council Directive on the Conservation of Wild Birds 2009/147/EC (EU Birds Directive, amended from 1979);
 - The Wildlife and Countryside Act 1981 (as amended) (WCA);
 - The Conservation (Natural Habitats &c.) Regulations 1994 (as amended); ('The Habitats Regulations');
 - The Nature Conservation (Scotland) Act 2004 (amended); and
 - The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 ('the EIA Regulations').
- 1.27. The guidance which was followed during the assessment is described in the original ES (paragraph 12.3.5). Further guidance that was consulted has involved:
- SNH Guidance. Avoidance rates for wintering species of geese in Scotland at onshore windfarms (SNH, 2013b); and
 - SNH Guidance. Recommended bird survey methods to inform impact assessment of onshore windfarms. August 2013 (Revised May 2014) (SNH, 2014).
- 1.28. In addition, this assessment has also considered the deliberations and conclusions of the PLI for the original proposal on ornithology (Scottish Government, 2015) which includes information that became material since the original ES's submission. The original proposal is identical to the proposed development, and so the PLI's Report (Scottish Government, 2015) is pertinent for the purpose of this ES chapter. This was indicated in the applicant's scoping report of January 2016 and was not disputed subsequently by the scoping opinions of SNH (27 January 2016) and Scottish Government (24 February 2016).

Scope of assessment

- 1.29. Ornithological interests have the potential to be affected by the following key elements of the proposed development:

- Construction activities, including borrow pit operations and track establishment;
 - Operational activities, including turbine function and presence of tracks;
 - The additional effects of the proposed development on a baseline of other consented and proposed wind energy developments in the area; and
 - Decommissioning activities.
- 1.30. The following types of potential impacts resulting from the proposed development on birds have been considered:
- Habitat modification due to change in land management and hydrology;
 - Direct habitat loss due to land-take by turbine bases, access tracks and ancillary structures;
 - Indirect habitat loss due to displacement of birds as a result of construction and maintenance activities, or due to the presence of operational turbines close to nesting or feeding sites or habitual flight routes; and
 - Collision with rotating turbine blades, overhead wires, guy lines or fencing (i.e. killing or injury of birds).
- 1.31. For the original proposal, scoping and consultation, along with desk studies, initial site visits and the professional judgement of the NRP ornithology team, identified a number of potentially significant effects, and these formed the basis of the potential effects to be assessed in the original proposal's ES (ornithology chapter 12). These potential effects were thoroughly described in the original ES, were considered in response by SNH, and were subject to further scrutiny by the PLI.
- 1.32. The proposed development is identical in all ways to the original proposal.
- 1.33. Conclusions on the potential impacts of the original proposal therefore are applicable also to the proposed development. This was noted in the scoping report (and see 'Introduction and overview of assessment' for this chapter) and was not disputed subsequently by the scoping opinions of SNH (27 January 2016) and Scottish Government (24 February 2016).
- 1.34. The ES for the original proposal (original ES Chapter 12: section 12.10) concluded that the likely effects of the project on all bird species were not significant under the terms of the EIA Regulations.
- 1.35. This conclusion was affirmed by both SNH and the PLI.
- 1.36. The ES for the original proposal (original ES Chapter 12: section 12.11) judged – since such a decision rests with Ministers – that it was beyond scientific doubt that a HRA should conclude that the development will not have an adverse impact on the integrity of any SPAs in the neighbourhood of the original proposal.
- 1.37. This judgement was affirmed by both SNH and the PLI (P. 78 – 83).
- 1.38. This assessment for the proposed development does not repeat the materials which have been thoroughly considered for the original proposal and which are

transferrable to the proposed development because the proposed development is identical. The original ES did not consider the golden eagle as a key receptor species because, at the time, there was no occupied eagle territory in the vicinity of the development site. The PLI, however, did thoroughly consider the change brought about by the reoccupation of a golden eagle territory since the original ES, and concluded that the development would not compromise either the regional golden eagle population (under the EIA Regulations) or the integrity of the CSP SPA (under the Habitat Regulations).

- 1.39. Nevertheless, whilst acknowledging this intense scrutiny by the PLI of the 'golden eagle issue', according to the applicant's scoping report (January 2016), and because the original ES did not consider the golden eagle as a key receptor species, the scope of this assessment will primarily involve the golden eagle by way of novel consideration.

Desk study

Statutory nature conservation sites

- 1.40. The proposed development site is not statutorily designated at international or national level for ornithological interests.
- 1.41. The development is about 400 m, at its closest point, from the CSP SPA (also classified as a Special Area for Conservation and a Ramsar site) and the East Halladale SSSI. Qualifying species for the SPA are breeding populations of: red-throated diver, black-throated diver, wigeon, common scoter, hen harrier, golden eagle, merlin, golden plover, dunlin, wood sandpiper, greenshank and short-eared owl.
- 1.42. Following materials presented by the original ES, and concurring with SNH deliberations and responses, and after several further representations, the PLI judged that under the HRA process Ministers (as the decisive authority) should conclude the development should not have any adverse impacts on any of the several interests for which the SPA is classified.
- 1.43. The Caithness Lochs (CL) SPA and the component Broubster Leans SSSI is approximately 3.7 km from the development. The qualifying interest of this SPA is wintering populations of: whooper swan, Greenland white-fronted goose, and greylag goose.
- 1.44. In response to the original ES, SNH concluded that there would be a likely significant effect of the original proposal on greylag geese so that an appropriate assessment is required. On the basis of estimated collision mortality presented by the original ES, SNH concluded that under an appropriate assessment the predicted collision mortality would not have an adverse impact on the greylag goose interest of the SPA. The PLI (P. 78) agreed with this conclusion.
- 1.45. It is worth noting, for the purpose of the proposed development, that these conclusions would be affirmed by the subsequent further reduction in estimated greylag goose collision mortality which results from revised SNH guidance on avoidance rates since the original ES (SNH, 2013b). The revised SNH guidance increased the recommended avoidance rate which should be

used in Collision Risk Models for geese to 99.8 % from the previously recommended 99 % rate. The original ES used a 99 % avoidance rate to estimate greylag goose collision mortality at 1.4 strikes per year, and so at 34 strikes over the 25 years lifetime of the wind farm (original ES Appendix 12.2). Subsequent to the revised SNH guidance, and for the proposed development, under the revised 99.8 % avoidance rate the estimated strike rate would be 0.27 strikes per year and 7 strikes over 25 years.

- 1.46. The North Caithness Cliffs (NCC) SPA is approximately 5 km to the north of the proposed development. The component SSSI is the Red Point Coast SSSI. This SPA is designated for breeding peregrine and guillemot, along with its assemblage of five species of breeding seabird: puffin, fulmar, kittiwake, guillemot and razorbill.
- 1.47. As documented by the original ES, and as concluded by the PLI (P. 78) the original proposal would not be likely to have a significant effect on the NCC SPA and that there is no need for Ministers to carry out an appropriate assessment.

Consultations

- 1.48. The details of the scoping report submitted by the applicant are available in that document (January 2016) and have been summarised in materials presented elsewhere in this chapter and this ES.
- 1.49. Scoping opinions for the proposed development were solicited in a scoping report from the applicant (January 2016). These opinions are summarised in Table 12.1.

Table 12.1 Record of consultation

Consultee	Date of response	Issue raised	Response
Scottish Government	24 February 2016	<i>"It should be noted that the bird survey work used to inform the previous Limekiln Wind Farm application will be fully acceptable if the Limekiln Wind Farm Resubmission is submitted in 2016. If however, it is not submitted in 2016 then new bird surveys following SNH and RSPB Scotland guidance will be required to inform the application."</i>	The application for the proposed Development has been submitted in 2016. No further surveys were required, therefore, and with the exception of additional observations relating only to golden eagle (Confidential Appendix 12.A), no further survey results have been submitted.
SNH	27 January 2016	<i>"The applicant has now submitted a scoping report for an identical proposal..."</i>	As acknowledged in SNH's scoping opinion, the proposed development is identical to the original proposal. This, and Scottish Government (2013) and SNH advice (SNH, 2013a) has guided the assessment of the proposed development, so as

Consultee	Date of response	Issue raised	Response
			to minimise any unnecessary duplication of assessment.
SNH	27 January 2016	<p><i>"We tend to agree with the majority of the conclusions in the scoping report in relation to the potential for significant environmental effects on matters within our remit. We therefore provide points of clarification below..."</i></p> <p><i>"The bird survey work used to inform the previous application is coming close to the recommended maximum age limit set out in [SNH guidance web link]... Our advice is that, provided an application is submitted in 2016, it would be possible to rely on the previous bird survey work to inform the new application. However, if the application is delayed and not submitted in 2016, then new bird survey work following the SNH bird survey guidance will be required to inform any application made after 2016."</i></p>	<p>The scoping report noted that the original ES and its conclusions should be substantially fit-for-purpose for the assessment of the proposed development because the original proposal and the proposed development are identical. Material from the original ES has not been duplicated in this assessment.</p> <p>The application for the proposed Development has been submitted in 2016.</p> <p>No further surveys were required for the assessment of the proposed development, therefore, and with the exception of additional observations relating only to golden eagle (Confidential Appendix 12.1), no further survey results have been submitted.</p>
RSPB	1 February 2016	<p><i>"At the time of our response to the earlier application, we considered that the 2012 ES to have addressed the issues we were concerned about (principally potential impacts on birds, and on designated nature conservation sites, notably the Caithness and Sutherland Peatlands Special Protection Area and Special Area of Conservation – "the SPA" and "the SAC" respectively)."</i></p>	<p>As the proposed development is identical to the original proposal, and in keeping with advice from the competent authority (Scottish Government, 2013) and their statutory advisors on this matter (SNH, 2013a), these matters have not been re-visited by the present assessment – save only to reiterate the findings of the original ES, and the agreement with those findings by SNH and the PLI.</p> <p>It is also noted here that RSPB, too, have no issue</p>

Consultee	Date of response	Issue raised	Response
			with the findings of the original ES, apart from golden eagles. The matter of golden eagles is raised by RSPB in subsequent opinion, documented below.
RSPB	1 February 2016	<p><i>"During the course of the PLI, it emerged that a golden eagle territory close to the application site and with nest sites within the SPA had become re-occupied following a long period of abandonment, subsequent to submission of the original ES. Some new information was gathered during 2014, which informed the PLI reporters' findings in relation to golden eagle, on which the applicant now relies in terms of scoping the s36 resubmission."</i></p> <p><i>"RSPB Scotland cannot agree with the applicant's suggestion in the scoping report that the PLI reporters' 2014 findings in relation to golden eagle impacts remain valid in terms of the resubmission of an ES in 2016 or later."</i></p>	<p>The PLI Reporters did not simply consider, as inferred in this RSPB opinion, "some new information ...gathered during 2014" but also a suite of additional information including: several Predicting Aquila Territory (PAT) model runs; a large body of evidence which indicates that the development site's habitat (commercial conifer plantation) is typically avoided by golden eagles; that there was no suitable habitat beyond the development site which could possibly suggest eagles might overfly the development site to reach it; and the apparently substantial availability of large tracts of suitable habitat away from the development site (to the south and west). The "new information" alluded to in this RSPB opinion was gathered in 2014 (field survey) and confirmed the additional evidence that the golden eagles would not use the development site.</p> <p>The PLI Reporters concluded, as did SNH, that the development would not have an adverse effect on the integrity of CSP SPA, so far as the golden eagle interest.</p> <p>The Reporters and SNH also concluded that the development would not have</p>

Consultee	Date of response	Issue raised	Response
			<p>a significant adverse effect on the regional (NHZ) golden eagle population for the purpose of the EIA Regulations.</p>
RSPB	1 February 2016	<p><i>"We consider that the reoccupation of the golden eagle territory is a material change in circumstances since submission of the original ES, and consequently that additional work including survey work is required in order to assess the scale and likelihood of impacts on golden eagle, both at a Natural Heritage Zone ("NHZ") scale, and as a qualifying feature of the Caithness and Sutherland Peatlands SPA."</i></p>	<p>The PLI Reporters were well aware of the reoccupation of the golden eagle territory and its potential consequences (Scottish Government, 2015). Indeed, most of the Reporters' deliberations on ornithology explicitly considered this material change. The PLI concluded, as noted above, that there would be no adverse impacts on the SPA's eagle interest or a significant effect on the NHZ population.</p> <p>This RSPB opinion, which repeats an RSPB representation to the PLI, was effectively rebutted by the PLI Reporters (Scottish Government, 2015: P. 80); such that the Reporters noted that further surveys were not required to reach a conclusion on (no) adverse effects under any legislative instrument.</p> <p>Given the timing of this application for the proposed development (2016), the scoping opinion of both SNH and Scottish Government (see above) also disagrees with this RSPB opinion, by stating that further surveys are not required.</p> <p>As part of the ongoing monitoring of the proposed development site, nevertheless, further surveys of golden eagle have been conducted in 2015 – 2016</p>

Consultee	Date of response	Issue raised	Response
			and these are presented as part of this chapter (Confidential Appendix 12.A).

Bird surveys

- 1.50. The methodological approach on bird surveys and survey areas has been thoroughly described in the original ES (original Chapter 12 and original Appendix 12.1), as were other sources of data to supplement the baseline field records. These are not repeated in this chapter.
- 1.51. These baseline data for the original proposal have been subjected to particular scrutiny - and the data also apply to the proposed development by virtue of the absence of any difference between the original and proposed development specifications. This scrutiny has been documented by the PLI (Scottish Government, 2015) which concluded that the baseline surveys were robust and in accordance with relevant guidance.
- 1.52. After the PLI, as part of ongoing monitoring by the applicant of the proposed development, survey efforts have involved further watches over the development site and have also been focussed on the nearest golden eagle interest of the CSP SPA. The observation points for these efforts, conducted between September 2015 and April 2016 are shown in Figure 12.1 (see Volume 3 of this ES). The methods and results of these efforts are presented for the golden eagle in Confidential Appendix 12.A.

Analytical procedures

Evaluating effects

- 1.53. The assessment determines the potential impacts of the proposed development and considers the likelihood of their occurrence. Effect is defined as change in the assemblage of bird species present as a result of the impacts accrued by the proposed development. Change can occur either during or beyond the life of the proposed development. Where the response of a population has varying degrees of likelihood, the probability of these differing outcomes is considered. Note effects can be adverse, neutral or beneficial.
- 1.54. In assessing whether an effect is significant or not, three factors are considered:
- the Nature Conservation Importance of the species involved;
 - the magnitude of the likely impact; and
 - the conservation status of the species.
- 1.55. The significance of potential effects is then determined by integrating the assessments of these factors in a reasoned way. The magnitude of likely

impacts involves consideration of their spatial and temporal magnitudes. In making judgements on significance by this integration, consideration is given to the national and regional trends of the potentially affected species, and how the integrated impacts may impinge on the conservation status of the species involved at these geographical levels. Further details of the process underlying the assessment and the determination of significance follow.

Nature Conservation Importance

- 1.56. The Nature Conservation Importance of each bird species potentially affected by the proposed development was defined according to the criteria tabulated in the original ES (Chapter 12: Table 12.2).
- 1.57. The golden eagle is defined as high Nature Conservation Importance by virtue of being a species listed in Annex 1 of the EU Birds Directive and as a breeding species listed on Schedule 1 of the WCA.

Magnitude of impact

- 1.58. Magnitude was determined by consideration of the spatial and temporal nature of each impact. There are five levels of spatial magnitude (Table 12.2) and four levels of temporal magnitude (Table 12.3). As this is a non-designated site, spatial magnitude was assessed in respect of regional populations within the appropriate ecological unit, taken to be Natural Heritage Zone (NHZ) 5, as defined by SNH.

Table 12.2 Levels of spatial magnitude of impact

Magnitude	Definition
Very High	Total/near total loss of a bird population due to mortality or displacement. Total/near total loss of productivity in a bird population due to disturbance. Guide: > 80 % of regional population affected.
High	Major reduction in the status or productivity of a bird population due to mortality, displacement or disturbance. Guide: 21-80 % of regional population affected.
Moderate	Partial reduction in the status or productivity of a bird population due to mortality, displacement or disturbance. Guide: 6-20 % of regional population affected.
Low	Small but discernible reduction in the status or productivity of a bird population due to mortality, displacement or disturbance. Guide: 1-5 % of the regional population affected.
Negligible	Very slight reduction in the status or productivity of a bird population due to mortality, displacement or disturbance. Reduction barely discernible, approximating to the "no change" situation.

Magnitude	Definition
	Guide: < 1 % of regional population affected.

Table 12.3 Levels of temporal magnitude of impact

Magnitude	Definition
Permanent	Impacts continuing indefinitely beyond the span of one human generation (taken as approximately 25 years), except where there is likely to be substantial improvement after this period (e.g. the replacement of mature trees by young trees which need > 25 years to reach maturity, or restoration of ground after removal of a development). Such exceptions can be termed very long effects.
Long-term	Approximately 15-25 years or longer (refer to above).
Medium-term	Approximately 5-15 years.
Short-term	Up to approximately 5 years.

- 1.59. The magnitude of an impact can be influenced by when it occurs. For example, operations undertaken in daylight hours may have little temporal overlap with the occupancy of birds' night-time roosts; and seasonality in a bird population's occupancy of a site may mean that impacts are unlikely during certain periods of the year.
- 1.60. Sensitivity to a potential impact is considered in assessing its spatial magnitude. Sensitivity to impacts can differ between similar species and, for a particular species, some populations and individuals may be more sensitive than others, and sensitivity may change over time, e.g. birds are often more sensitive to disturbance during the breeding season. Sensitivity can also vary according to form of an impact. Displacement, for example, refers directly to behavioural sensitivity to disturbance and the distances of birds to its source. Sensitivity to collision risk is inherently factored into collision risk models via the avoidance rate – which includes the capacity of birds to avoid being struck by rotating blades – and this can be different between species.
- 1.61. Importantly, in determining sensitivity and its contribution to an impact, where such information exists from monitoring sites, data on the responses of individual birds and bird populations to wind farms and similar developments are taken into account, along with knowledge of how rapidly the population or performance of a species is likely to recover following loss or disturbance (e.g. birds being recruited from other populations elsewhere).

Conservation status

- 1.62. Where the available data allowed, the conservation status of each potentially affected population was considered within the NHZ. For these purposes, conservation status was taken to mean the sum of the influences acting on a population which may affect its long term distribution and abundance. Conservation status is considered to be favourable where:

- a species appears to be maintaining itself on a long term basis as a viable component of its habitats;
- the natural range of the species is not being reduced, nor is likely to be reduced for the foreseeable future; and
- there is (and will probably continue to be) sufficient habitat to maintain the species' population on a long term basis.

Determining significance of potential effects

1.63. Following the classification of a species' Nature Conservation Importance, the temporal and spatial magnitudes of each potential impact is considered according to each phase of the proposed development. The temporal magnitude is typically largely dependent on the duration of the phase of the proposed development (Table 12.3). The spatial magnitude of likely impacts involves consideration of the number of birds or breeding attempts that may be affected, which is derived from the results of baseline surveys after application of knowledge on sensitivity to the particular impact. This is then translated to a classification of spatial magnitude by reference to available information on the abundance of the regional population (Table 12.2). A species' Nature Conservation Importance, the duration of the impact (temporal magnitude) and the impact's level of spatial magnitude are integrated to reach a judgement on effect significance. In this integration the form of the impact's spatial magnitude is considered (e.g. mortality, displacement or failed breeding) as regards its influence on the population's demography. Hence the integration results from the species' Nature Conservation Importance (high for golden eagle), and the demographic sensitivity of its population to the form, scale and duration of the impact. In making judgements on significance by this integration, consideration is given to the national and regional trends of the potentially affected species, and how the integrated impacts may impinge on the conservation status of the species involved at these geographical levels.

1.64. In accordance with the EIA Regulations, each likely effect is evaluated and classified as either significant or not significant. The significance levels of effect on bird populations are described in Table 12.4. Impacts resulting in detectable changes in the conservation status of regional populations of Nature Conservation Importance are automatically considered to be significant effects for the purposes of the EIA Regulations (i.e. no distinction is made between effects of "major" or "moderate" significance). Non-significant effects include all those which are likely to result in barely detectable (minor) or non-detectable (negligible) changes in conservation status of regional (and therefore national) populations.

Table 12.4 Significance levels of effects on birds

Significance level of effect	Description
Major	Detectable changes in regional populations of Nature Conservation Importance that would have a severe impact on conservation status.
Moderate	Detectable changes in regional populations of Nature Conservation Importance that would likely have an

Significance level of effect	Description
	impact on their conservation status.
Minor	Small or barely discernible changes that would be unlikely to have an impact on the conservation status of regional populations of Nature Conservation Importance.
Negligible	No or non-detectable changes in the conservation status of regional populations of Nature Conservation Importance.

Baseline conditions

- 1.65. The baseline conditions for the original proposal are thoroughly described in the original ES (Chapter 12: section 12.4; original ES Appendix 12.1). The original proposal is identical in all ways to the proposed development.
- 1.66. Therefore, results on the baseline bird populations and flight activity within and surrounding the proposed development, based on surveys undertaken in the period April 2010 to June 2012, and on desk based consultation with relevant data-holders, are not repeated here. These surveys have been scrutinised intensely and were deemed to be in accordance with guidance and suitable for the purposes of assessment by the PLI (Scottish Government, 2015). No further surveys were deemed necessary for the assessment of the proposed development in the opinions of SNH and Scottish Government (Table 12.1).

Golden eagle

- 1.67. The territory was reoccupied in 2013 after several decades of being vacant. It was also occupied in 2014, and in both 2013 and 2014 a chick was successfully fledged. It is not known if a chick was fledged in 2015, although the territory was occupied, and in 2016 the birds again bred. The nesting area is approximately 3.5 km from the development site.
- 1.68. Between April and August 2014 there was over 115 hours of observations from vantage points that watched over the eastern part of the development site and the open ground to the west. A total of 6.5 hours were spent watching towards the nesting area at a distance that would not cause disturbance, and over 106 hours of surveys for scarce breeding birds and breeding birds of open ground were also conducted (confidential material presented to the PLI; involving information forwarded by NRP to RSPB in email of 29 August 2014).
- 1.69. There were no records of golden eagles over the development site in 2014.
- 1.70. From several vantage points (Figure 12.1) during September 2015 to April 2016 there were over 188 hours of observations over the development site and over 34 hours of observation effort to watch specifically for any eagle flights from the territory centre towards the development site (Confidential Appendix 12.A). The temporal span of these observations cover a post-

breeding period (2015), a non-breeding period (2015/16) and an early part of a breeding period (2016 – during which the birds were nesting).

- 1.71. In over 188 hours of observations over the development site there were no observations of golden eagles within 500 m of the proposed development. Golden eagles were observed on many occasions during the dedicated watches towards the territory centre but there were no records of birds heading towards the development site: all flights were around the nest area or to the south. In 2015 – 2016 the closest record was 900 m from the nearest proposed turbine, and most were at least 1200 m away (Confidential Appendix 12.A, including Confidential Figure 12.2).
- 1.72. When not breeding resident golden eagles tend to range further from the territory centre (Haworth et al., 2006) and so the absence of any flights remotely near the development site in the 2015/16 winter is especially revealing given the distance of the proposed development from the eagles' territory centre.

Trends and projected future baseline

- 1.73. Land management within 2 km of the proposed development is currently a commercial conifer plantation, with light to moderate agricultural and sporting influences through grazing by red deer and sheep, and muirburn, in open areas. Change in bird populations during the medium to long term (i.e. up to 25 years) is likely to be in line with regional and national trends influenced locally by existing forest plans and grazing and burning management. If current land management regimes were to persist in the medium to long-term (i.e. up to 25 years) then, on current levels, it is likely that the proposed development area would continue to provide habitats comparable to those found at present.
- 1.74. The reoccupation of the golden eagle territory in 2013 apparently coincided with a change in land ownership (which, therefore, presumably reintroduced management which was more complimentary to this species). Assuming this more benign management continues then there is no reason to project that the territory will not continue to be occupied during the lifespan of the proposed development.
- 1.75. Therefore, any changes in bird populations during this period are likely to be in line with regional and national trends, influenced by local conditions such as forest management, grazing and burning management.

Information gaps

- 1.76. No information gaps were identified in the course of the PLI which scrutinised the original proposal, including for the golden eagle interest. As noted previously, the original proposal is identical in all ways to the proposed development, and no further survey data were required for the proposed development in the opinions of SNH and Scottish Government (Table 12.1).
- 1.77. No information gaps were identified in the course of undertaking this assessment of the proposed development.

Evaluation of receptors

- 1.78. Potential effects of the original proposal were evaluated in respect of species of high or moderate Nature Conservation Importance (see original ES Chapter 12: Table 12.7; hen harrier, merlin and golden plover – all species of high Nature Conservation Importance). As the golden eagle is of high Nature Conservation Importance, but was not considered as a receptor species in the original ES, potential effects of the proposed development have been evaluated for this species in this assessment (see also the applicant’s scoping report, January 2016). This evaluation is despite, but referable to, the assessment of the original proposal’s potential effects as thoroughly described by the PLI, which concluded no adverse effects of the development on ornithological interests under any legislative instrument.

Ornithology specific design evolution

Scheme layout response to potentially significant effects

- 1.79. A full description of the proposed development can be found in Chapter 3 of this ES, with design iterations outlined in Chapter 2. Previous design iterations of the proposed development were influenced by precautionary ornithological constraints, and so can be considered as embedded mitigation. (The proposed development is identical to the original proposal.) These constraints involved a stand-off distance of several hundred metres between the proposed development and the boundary of the CSP SPA, and a presumption against development in the southern part of the forest block within which the proposed development is located, so as to maintain a ‘safe’ distance (as regards direct disturbance and likely core foraging areas) from known merlin nest sites within the CSP SPA. This design has also led to substantial

Construction specific response to potentially significant effects

- 1.80. Although no species listed under Schedule 1 of the WCA was recorded during baseline surveys as nesting within a distance at which construction could have any potential adverse impact, the assessment has been undertaken under the assumption that a Bird Protection Plan (BPP), approved by SNH, would be in place prior to the onset of construction activities at the site. The BPP would describe survey methods for the identification of sites used by protected and sensitive birds and would detail operational protocols for the prevention or minimisation of disturbance to birds as a result of activities associated with the construction of the proposed development. The BPP would be overseen by an Ecological Clerk of Works (ECoW).
- 1.81. The BPP would describe surveys to locate the nests of birds listed in Schedule 1 of the WCA, in advance of construction works progressing across the proposed development during the period March-August. In the event that an active nest of a Schedule 1 species is discovered within species-specific distances given by Whitfield et al. (2008) (or within a 500 m radius of the nest for Schedule 1 species not listed by Whitfield et al., 2008) then activities, including vehicle movements, would be halted immediately within the specified distance. A disturbance risk assessment prepared under the BPP would be undertaken and any measures considered necessary to safeguard

the breeding attempt (e.g. exclusion zones or restrictions on timing of works) would be submitted to SNH for agreement before recommencing work. The BPP would also outline operational protocols, similar to those proposed above for breeding birds, to prevent or minimise disturbance to other sensitive species using the proposed development or its surrounds during the construction phase.

Decommissioning specific response to potentially significant effects

- 1.82. The BPP, described above, would also operate during the decommissioning phase of the proposed development.

Predicted effects of the scheme

- 1.83. The predictions in this chapter are based solely on the golden eagle so far as novel detailed considerations, since other receptor species were considered by the original proposal, which is identical to the proposed development. Predictions for species other than golden eagle are therefore transferred directly from the original ES. (For further details refer to the original ES Chapter 12, and further intensive deliberations documented thoroughly by the PLI.)

Effects during construction

- 1.84. The construction phase of the proposed development, including construction of the site access tracks, turbine hardstandings and erection of the turbines, would last a total of 14 months. The number of bird breeding seasons potentially disrupted by construction activities would depend on the month in which construction works begin. For the purposes of this assessment it is assumed that construction work would start prior to the bird breeding season and, for any given species, breeding would be affected for two seasons. For any species, therefore, construction activities create potential adverse effects that are only short-term (Table 12.3).
- 1.85. Potential effects during construction relate to potential displacement behaviour which may affect receptors through noise and visual disturbance. Potentially this might affect the success of breeding attempts and use of foraging areas.
- 1.86. These activities would not potentially affect golden eagles due to the distance of the proposal from the eagle nesting area (Whitfield et al., 2008) and that the area around the development site is fundamentally unsuitable foraging habitat for this species. Essentially, despite being a species of high Nature Conservation Importance, golden eagles in the vicinity of the proposed development are insensitive to potentially adverse impacts during construction.
- 1.87. Therefore, the effects of displacement due to disturbance during construction are deemed as negligible for golden eagle and all other species and not significant under the EIA Regulations.
- 1.88. The PLI reached the same conclusion for the identical original proposal.

Effects during operation

1.89. Four potential impacts may occur during operation:

- Habitat modification;
- direct habitat loss through land take conversion from baseline habitat type;
- indirect habitat loss through displacement from former habitat use due to turbine operational disturbance; and
- collision with turbines.

Forms of habitat loss

1.90. PAT modelling of the relevant golden eagle range use showed that there was no expectation that the eagles would use the development site to any material level, even when it was assumed (unrealistically) that the birds may range up to 9 km from the territory centre (see the PLI: Scottish Government, 2015). As the habitat in the vicinity of the proposed development is commercial conifer plantation, a habitat which golden eagles are well-known to avoid (e.g. Whitfield et al., 2001, 2007; and references therein), and which has been confirmed by many hours of field surveys in the vicinity of the proposed development, then there is no prospect of any form of habitat loss (modification, direct loss or indirect loss through displacement) affecting the golden eagle interest. Essentially, as the habitat in and around the development is habitat which golden eagles do not use, then any modification or loss of that habitat will make no difference to golden eagles.

1.91. Despite being a species of high Nature Conservation Importance, golden eagles in the vicinity of the proposed development are insensitive to potentially adverse impacts relating to forms of habitat loss during operation.

1.92. Therefore, the effects of habitat loss as a result of operation are deemed as negligible for golden eagle and all other species and not significant under the EIA Regulations.

1.93. The PLI reached the same conclusion for the identical original proposal.

Collision risk

1.94. It is important to note that no collision risk modelling has been conducted for the proposed development because such models would result in no risk of collision, because no eagles have been recorded over the proposed development site.

1.95. The considerations on habitat loss also apply to the possibility that the proposed development has a potential impact through risk of collision with the turbines: the proposed wind farm fundamentally presents no potential material adverse risk to the eagles, based on its location and the unsuitable habitat in the vicinity of its location.

1.96. In addition, there are several other considerations which are relevant:

- there is no suitable habitat beyond the wind farm which the eagles may wish to reach and hence fly over the proposal to reach it. This much is also indicated by the PAT modelling and the absence of any such flights during baseline studies when (obviously) there were no turbines;
 - even if such habitat did exist then it would make no energetic sense for an eagle resident at the nesting area to fly across several kilometres of unsuitable habitat in order to reach it, when it has large tracts of apparently highly suitable habitat on its 'doorstep';
 - similarly the eagle pair is unconstrained by any neighbouring territory holders and so is unencumbered in exploiting substantial areas of suitable open habitat away from the unsuitable development site and much closer to the territory centre. That this open habitat is particularly suitable is revealed by the productive breeding history of the territory since it was reoccupied by, presumably, younger mature birds, and when younger pairs are typically less likely to be productive (Whitfield et al., 2004); and
 - resident eagles with a wind farm within their territory in Kintyre appeared to avoid turbines, even when they were in open habitat (Walker et al., 2005).
- 1.97. In its scoping opinion, RSPB (letter of 1 February 2016) suggested that forestry activities within the development site will change the nature of the plantation during the course of the proposed development's lifespan and this might mean that eagles may use the wind farm area, more than they do currently, and so be exposed to collision risk.
- 1.98. This suggestion is highly unlikely to be realised, for several reasons, which are encapsulated by features of golden eagle biology; and the site-specific features of the proposed development and its relationship with the eagle pair in question (as described above, and as scrutinised in depth by the PLI).
- 1.99. The RSPB opinion did not consider some obvious and rational questions: why would golden eagles which have a large and productive source of open ground habitat venture into unsuitable habitat, which they have to date shown absolutely no inclination to use, despite there being areas of open ground within the forest? And, why, when forestry operations will not make much difference to the suitability of the forest habitats surrounding the development for eagles, would the birds use this area when it will also contain wind turbines that are apparently considered as a 'threat' by golden eagles elsewhere and so would also be avoided?
- 1.100. The answer to these questions is that, based on what is known of golden eagle biology, and eagles' behaviour and ecology around the proposed development, there is no reasonable argument to suggest that collision risk will be a potentially adverse impact on eagles over the lifetime of the proposed development.
- 1.101. In summary, there is patently no prospect of any collision risk for golden eagles from considerations of the baseline conditions. There is also no reason to indicate that this evaluation will change materially over the lifetime of the proposed development.

- 1.102. Despite being a species of high Nature Conservation Importance, golden eagles in the vicinity of the proposed development are insensitive to potentially adverse impacts relating to collision risk during operation. Their exposure to the risk is deemed as negligible, at worst, and nil, more likely.
- 1.103. Therefore, the effects of collision with turbines as a result of operation are deemed as negligible for golden eagle and all other species and not significant under the EIA Regulations.
- 1.104. The PLI reached the same conclusion for the identical original proposal.

Effects during decommissioning

- 1.105. Habitat reinstatement requirements would be set out in consultation with the statutory authorities at the time of decommissioning (see Chapter 3). Turbines and substation compounds would be removed at the end of the operational phase (25 years), with foundations and access tracks remaining in place to minimise potential environmental impacts resulting from their removal. Disturbance effects due to decommissioning would last for a shorter time and be of lower intensity than during construction, and so effects would be similar in nature but of lower magnitude during decommissioning.
- 1.106. In addition, as noted earlier all aspects of a Bird Protection Plan (BPP) would be in place to avoid any disturbance of nesting Schedule 1 species (including merlin, hen harrier and golden eagle).
- 1.107. The magnitude of decommissioning effects on all species is considered to be negligible. Even in the case of species of highest Nature Conservation Importance (including golden eagle) these effects are judged unlikely to be significant under the terms of the EIA Regulations.

Potential cumulative effects

- 1.108. The EIA Regulations require that the proposed development be assessed cumulatively along with other projects or plans. In doing so, SNH guidance (SNH, 2005) on assessing cumulative impacts has been followed. In considering cumulative effects, it is necessary to identify any effects that are minor in isolation but that may be major cumulatively.
- 1.109. Following SNH guidance, sensitive receptors were taken to be those species of high Nature Conservation Importance (original ES Chapter 12: Table 12.7) also including golden eagle, as identified by the present assessment, and for which there was some indication of a potential adverse impact as a result of the proposed development that may be exacerbated cumulatively as regards influencing a species' conservation status.
- 1.110. Searches for material on other wind farm projects in NHZ 5 were undertaken using the facility on The Highland Council website. Results of searches for data from available ESs and post-construction (operational) data underpinning individual proposals or consented projects that could contribute to potential cumulative effects for three receptor species were presented in the original ES (Chapter 12: Table 12.8). This search was updated in the present assessment

to account for additional projects since the original ES, and also including the golden eagle as a receptor species.

- 1.111. The original ES in 2012 considered the potential cumulative contributions of 21 prospective, approved or installed wind farm proposals in NHZ 5. There has been no material change since that time (or since SNH's and the PLI's scrutiny of the original proposal – in 2014) in further proposals that could significantly denigrate, on a cumulative basis, the conservation status of the four receptor species.
- 1.112. Moreover, and despite the difficulties and uncertainties surrounding 'genuine' cumulative effects introduced by other projects, of the four receptor species (golden eagle, hen harrier, merlin and golden plover), the influence of the proposed development on regional populations and their conservation status will be undetectable so that the proposed development is highly unlikely to add to discernible incremental adverse effects.
- 1.113. Therefore, the predicted in-isolation effects of the proposed development are considered to have no potential to contribute to cumulative effects and are therefore negligible across all species. These effects will not be significant under the terms of the EIA Regulations.
- 1.114. It should also be noted that this same conclusion was reached by SNH and the PLI on the original proposal – this conclusion included consideration of the golden eagle. There has been no material change in either the proposed development or additional wind farm schemes in the region and accrued potential cumulative effects since the PLI, which could potentially compromise this conclusion.

Mitigation and enhancement measures

- 1.115. Embedded safeguards against the disturbance of Schedule 1 nesting species will be implemented during construction and decommissioning through the BPP (see earlier).
- 1.116. As no effects on ornithological interests as a result of construction, operation or decommissioning of the proposed development were deemed significant, no mitigation is necessary or proposed.

Monitoring, including post-construction

- 1.117. To facilitate the implementation of the BPP during construction it is recommended that surveys for Schedule 1 species are conducted on an annual basis so that once/if approval for the proposed development is consented the ECoW responsible for implementation of the BPP has the most recent information to-hand to facilitate BPP implementation. These surveys should therefore continue on an annual basis post-application until the year before construction. They should be guided by the relevant survey methods (including appropriate buffers for search areas) for Schedule 1 species that were identified during the baseline survey and desk-based data collation exercises (see the original ES: Appendix 12.1; and SNH, 2014).
- 1.118. The predicted effects of the proposed development during construction and operation are precautionary yet, still, imperceptible even for the key receptor species, and so any monitoring of 'real' effects should the proposed

Development be consented is unlikely to be cost-effective, post-construction. The consenting authority may wish, nevertheless, to consider that a post-construction monitoring programme of the breeding locations of key receptor species (merlin, hen harrier and golden eagle) might be worthwhile in order to contribute to wider knowledge on wind farm effects on birds in Scotland.

Assessment of residual effects

1.119. Residual effects are summarised in Table 12.4. Residual effects due to construction, operation and decommissioning of the proposed development are assessed negligible, for all species, and therefore not significant under the EIA Regulations.

1.120. The PLI reached the same conclusion for the identical original proposal.

Table 12.4 Summary of residual effects

Potential effect	Receptor	Mitigation	Residual effect
Construction: disturbance	All species	None required (BPP for Schedule 1 species)	Negligible
Operation: land take	All species	None required	Negligible
Operation: habitat modification	All species	None required	Negligible
Operation: disturbance	All species	None required	Negligible
Operation: collision	All species	None required	Negligible
Decommissioning	All species	None required (BPP for Schedule 1 species)	Negligible
Cumulative	All species	None required	Negligible

Summary and statement of significance

1.121. The likely impacts of the proposed development were evaluated in accordance with the methods described earlier ('Methodology') and the significance of each potential effect stated earlier in this chapter for species noted in Section 12.4 of the original ES (hen harrier, merlin and golden plover) and golden eagle.

1.122. It is concluded that the likely impacts of the proposed development on all bird species are not significant under the terms of the EIA Regulations.

1.123. It should be noted that the PLI affirmed SNH's conclusions that the likely impacts of the original proposal on all bird species (including golden eagle) were not significant for the purposes of the EIA Regulations. The proposed development is identical to the original proposal. As described in this chapter there have been no material changes that would alter the PLI's and SNH's conclusions, save that there is now further field survey data to highlight the

conspicuously complete lack of any use of the proposed development by golden eagles in recent surveys. These additional data affirm further the PLI's and SNH's conclusions.

Potential impacts on SPA interests

- 1.124. The need for and the form of assessment under the Habitats Regulations (1994), as they referred to the original proposal, were described in the original ES (Chapter 12: section 12.11). This need is not changed by the proposed development, as it is identical in all ways to the original proposal, and so this background material is not repeated here.
- 1.125. Information on all relevant species was presented in the original ES to allow the competent authority to reach a decision under the HRA process for those species so far as the three SPAs within the vicinity of the development site. Additional information on the golden eagle (so far as it being an interest of the CSP SPA) has been presented in this chapter; supplementing the detailed consideration of this species under HRA by the PLI (the PLI concluded that the original proposal – identical to the proposed development – should not have an adverse impact on the CSP SPA's golden eagle interest).
- 1.126. In-combination effects as a result of further wind farm proposals that may influence impacts on all three SPAs and that could potentially affect HRA of the proposed development, have not materially changed since the PLI (see earlier in this chapter) or since scoping opinions were solicited by the applicant's scoping report in January 2016. In keeping with this, no consultee noted a need to consider any such novel potential projects in their scoping opinions.
- 1.127. As described earlier in this chapter, the judgement of all statutory consultees, RSPB and the PLI is that, regardless of which stage of a HRA is triggered by the proposed development, there is no prospect that the proposed development should have any adverse impact on any interests of the NCC and CL SPAs. This follows because the original proposal and the proposed development are identical, and no further projects could materially influence in-combination considerations.
- 1.128. All statutory consultees, as noted by the PLI, (and RSPB – see scoping opinion) have apparently agreed that the judgement of the competent authority should be that the proposed development (by virtue of it being identical to the original proposal) should have no adverse impact on almost all qualifying species.
- 1.129. The exception to universal agreement on the CSP SPA involves the golden eagle (as one of several qualifying species) and RSPB's scoping opinion. RSPB's opinion has been expressed before during the PLI, and so has already been considered by SNH and the PLI for the original proposal, and rejected – as repeatedly emphasised in this chapter, the original proposal is identical in all ways to the proposed development. SNH and the PLI concluded that the competent authority should decide that the development will have no adverse impact on any of the CSP SPA's interests; including the golden eagle.
- 1.130. Additional information on the golden eagle interest of the CSP SPA and its relationship with the proposed development has been presented by this

chapter. This further refutes RSPB's opinion and concurs with the recommendations of SNH and the PLI for the original proposal which should, logically and inferentially, be repeated for the proposed development.

- 1.131. It is the judgement of this chapter's assessment, acknowledging with due deference that it is the competent authority's decision on this matter, that it is beyond scientific doubt that the proposed development will not have an adverse impact on the integrity of NCC, CL or CSP SPAs alone, or in combination. It follows that there will be no detrimental effects on the respective SSSI or Ramsar designations which spatially overlap those of the SPAs.

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