

## **APPENDIX 8.4: ASSESSMENT OF ORNITHOLOGICAL RECEPTORS OF LOCAL VALUE**

8.1.1 **Table 8-1** below provides the assessment of potential effects of the Proposed Development on Ornithological Receptors of Local (Low) Value.

**Table 8-1: Ornithological Receptors of Local Value**

Species	Conservation Status *	Scottish Context †	Status in region	Baseline	Potential disturbance / displacement effects	Potential Collision Effects
<b>Lapwing</b>	Red-listed due to a severe decline in the UK breeding population.	A 55 % decline in the Scottish breeding population has been recorded between 1995 and 2017.	Common but declining breeder across eastern Highland, although scarce elsewhere in the region. Locally common migrant species can be uncommon in winter.	One flight of 11 birds was recorded in April 2019, north-east of Loch Dail na Copaig within the Dalchork Forest complex. The group of birds were active throughout the period of the three hour survey and included time spent at Potential Collision Height (PCH).  No territories were recorded within the breeding bird survey area.	Due to no territories being located during the breeding bird surveys, effects of displacement due to disturbance is likely to be of <b>negligible magnitude</b> and therefore <b>not significant</b> .	Due to the low level of flight activity recorded, collision effects are likely to be of <b>low magnitude</b> and <b>not significant</b> .
<b>Snipe</b>	Amber-listed due to moderate UK breeding population declines.	A widespread breeding species; in winter birds move south and to lower elevations and Scottish birds are joined by migrants from Scandinavia and	Common breeder across Highland region. Locally common migrant and winter visitor. 2,673 birds in NHZ 5.	No flights were recorded during flight activity surveys.  Eight territories were recorded within the breeding bird survey area, seven of which were within 400 m of the Proposed Development.	A study of disturbance to breeding birds from wind farm infrastructure notes a significant reduction in breeding densities of snipe within proximity to wind turbines and predicts a disturbance distance of 400 m <sup>3</sup> .  Disturbance to snipe at a distance of 400 m may result in the displacement of seven pairs. Compared to the relevant Natural Heritage Zone (NHZ) population, the number of birds affected would be low (0.3 % for NHZ 5). Although relatively small numbers of breeding snipe may be displaced during construction, effects would be temporary and alternative breeding habitat is available in	Due to no flight activity being recorded, collision effects are likely to be of <b>negligible magnitude</b> and <b>not significant</b> .

Species	Conservation Status *	Scottish Context †	Status in region	Baseline	Potential disturbance / displacement effects	Potential Collision Effects
		northern Europe.			the surrounding area. Therefore, displacement of snipe due to the construction of the Proposed Development is likely to be of a <b>low magnitude</b> and therefore <b>not significant</b> .	
<b>Common sandpiper</b>	Amber listed due to breeding population decline.	23 % decline in Scottish breeding population 1995 – 2017.	Migrant breeder	One territory around Loch Gaineamhach within the breeding bird survey area, 750 m from the Proposed Development.	Studies indicate that common sandpipers will start alarm calling at 75 m when breeding <sup>4</sup> . The distance between the territory at Loch Gaineamhach and the Proposed Development is of a large enough distance that displacement of common sandpiper due to construction is likely to be of <b>negligible magnitude</b> and <b>not significant</b> .	Not considered to be a target species in terms of collision risk; if any collisions do occur, the effect is likely to be undetectable against the natural mortality rate. Collision effects likely to be of <b>negligible magnitude</b> and <b>not significant</b> .
<b>Cuckoo</b>	SBL priority species; Red-listed due to severe declines in breeding population.	Recent BTO data show that in contrast to continuing strong declines in England and Wales, the Scottish population has shown only a small decrease.	Relatively common summer resident in Sutherland.	One cuckoo breeding territory was estimated within the breeding bird survey area, 310 m from the Proposed Development.	Although small numbers of host species (mainly meadow pipit) may be displaced, alternative breeding habitat is available in the surrounding area. Effects of displacement due to disturbance is likely to be of <b>negligible magnitude</b> and <b>not significant</b> .	Not considered to be a target species in terms of collision risk; if any collisions do occur, the effect is likely to be undetectable against the natural mortality rate. Collision effects likely to be of <b>negligible magnitude</b> and <b>not significant</b> .
<b>Skylark</b>	SBL priority species; Red-listed due to long-term declines in breeding	Has experienced declines in Scottish breeding population since 1970s.	Common breeder across the region but absent from most areas in	A total of 17 breeding territories were recorded during the breeding bird survey, one within 100 m of the Proposed Development.	It is possible that the construction of the Proposed Development may result in the displacement of some skylark pairs within the Limit of Deviation (LOD). Alternative breeding habitat is available within the surrounding area and any effects would be temporary, therefore the effect of displacement due to disturbance is	Not considered to be a target species in terms of collision risk; if any collisions do occur, the effect is likely to be undetectable against the natural mortality rate. Collision effects likely to be of <b>negligible</b>

Species	Conservation Status *	Scottish Context †	Status in region	Baseline	Potential disturbance / displacement effects	Potential Collision Effects
	population		winter.		likely to be of <b>low magnitude and not significant.</b>	<b>magnitude and not significant.</b>
<b>Meadow pipit</b>	Amber-listed due to moderate declines in the UK breeding population.	Scottish breeding population has declined by 11% between 1995 and 2017.	Common breeder across the region but absent from most areas in winter.	A total of 38 territories were recorded within the breeding bird survey area, two within 100 m of the Proposed Development.	It is possible that the construction of the Proposed Development may result in the displacement of some meadow pipit pairs within the LOD. Alternative breeding habitat is available within the surrounding area and any effects would be temporary, therefore the effect of displacement due to disturbance is likely to be of <b>low magnitude and not significant.</b>	Not considered to be a target species in terms of collision risk; if any collisions do occur, the effect is likely to be undetectable against the natural mortality rate. Collision effects likely to be of <b>negligible magnitude and not significant.</b>
<b>Willow warbler</b>	Amber- listed due to declines in UK breeding population	Modest increase in Scottish breeding population between 1995 and 2017	Migrant breeder; passage migrant	Three territories within the breeding bird survey area, none within 100 m of the Proposed Development.	Due to the low level of breeding activity recorded, the effect of displacement due to disturbance is likely to be of <b>negligible magnitude and not significant.</b>	Not considered to be a target species in terms of collision risk; if any collisions do occur, the effect is likely to be undetectable against the natural mortality rate. Collision effects likely to be of <b>negligible magnitude and not significant.</b>
<b>Duncock</b>	Amber- listed due to declines in UK breeding population	11% decline in Scottish breeding population between 2012 and 2017.	Regular breeder and migrant	Two territories recorded within the breeding bird survey area, both within 100 m of the Proposed Development.	Due to the low level of breeding activity recorded, the effect of displacement due to disturbance is likely to be of <b>negligible magnitude and not significant.</b>	Not considered to be a target species in terms of collision risk; if any collisions do occur, the effect is likely to be undetectable against the natural mortality rate. Collision effects likely to be of <b>negligible magnitude and not significant.</b>
<b>Lesser redpoll</b>	Red-listed due to long-term declines in breeding population.	Modest increase in breeding population in Scotland over past three years.	Migrant breeder; passage migrant	Four territories recorded within the breeding bird survey area, in the plantation north of the Creag Riabhach Wind Farm Control Building, the	Due to the low level of breeding activity recorded, the effect of displacement due to disturbance is likely to be of <b>negligible magnitude and not significant.</b>	Not considered to be a target species in terms of collision risk; if any collisions do occur, the effect is likely to be undetectable against the natural mortality rate. Collision effects likely to be of <b>negligible</b>

Species	Conservation Status *	Scottish Context †	Status in region	Baseline	Potential disturbance / displacement effects	Potential Collision Effects
				closest within 450 m of the Proposed Development.		<b>magnitude and not significant.</b>
<b>Pied flycatcher</b>	Red-listed due to long-term declines in breeding population.	Long-term declines in breeding population in the UK, no data available for Scottish population.	Passage migrant	One territory recorded within the breeding bird survey area, close to the River Tirry, 40 m from the Proposed Development.	Due to the low level of breeding activity recorded, the effect of displacement due to disturbance is likely to be of <b>negligible magnitude and not significant.</b>	Not considered to be a target species in terms of collision risk; if any collisions do occur, the effect is likely to be undetectable against the natural mortality rate. Collision effects likely to be of <b>negligible magnitude and not significant.</b>
<b>Grey wagtail</b>	Red-listed due to declines in UK breeding population	40 % decline in Scottish breeding population in last ten years.	Resident and migrant breeder	One territory recorded within the breeding bird survey area, close to the River Tirry, 150 m from the Proposed Development.	Due to the low level of breeding activity recorded, the effect of displacement due to disturbance is likely to be of <b>negligible magnitude and not significant.</b>	Not considered to be a target species in terms of collision risk; if any collisions do occur, the effect is likely to be undetectable against the natural mortality rate. Collision effects likely to be of <b>negligible magnitude and not significant.</b>

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\* = Conservation Status from Eaton, M., Aebischer, N., Brown, A., Hearn, R., Lock, L., Musgrove, A., Noble, D., Stroud, D. and Gregory, R. (2015) Birds of Conservation Concern 4: The Population Status of Birds in the UK, Channel Islands and Isle of Man. British Birds 108, 708-746

† = Population estimates and trends from Forrester, R., Andrews, I., McNerny, C., Murray, R., McGowan, R., Zonfrillo, B., Betts, M., Jardine, D. and Grundy, D. (2007) The Birds of Scotland. The Scottish Ornithologists' Club. Aberlady and Harris, S., Massimino, D., Eaton, M., Gilings, S., Noble, D. Balmer, D., Pearce-Higgins, J. & Woodcock, P. (2019) The Breeding Bird Survey 2018. BTO Research Report 717. BTO, Thetford.

#### References

<sup>1</sup>Burton, N., Rehfish, M. and Clark, N. (2002) Impacts of disturbance from construction work on the densities and feeding behaviour of waterbirds using the intertidal mudflats of Cardiff Bay, UK. Environmental Management 30: 865-871

<sup>2</sup>Pearce-Higgins, J., Stephen, L., Douse, A. and Langston, R. (2012) Greater impacts of wind farms on bird populations during construction than subsequent operation: results of a multi-site and multi-species analysis. Journal of Applied Ecology 49: 386-394

<sup>3</sup>Ruddock, M. and Whitfield, D. (2007) A review of disturbance distances in selected bird species. Natural Research on behalf of Scottish Natural Heritage.

<sup>4</sup>Yalden, D. (1991) The influence of recreational disturbance on common sandpipers *Actitis hypoleucos* breeding by an upland reservoir. Biological Conservation, 61: 41-49.