



Annex B: Technical Note to support Natural England's guidance on impacts of small-scale development to the Breckland Special Protection Area

Background

The Breckland Special Protection Area (SPA) is designated for birds including stone curlew, which is the primary focus of this briefing. Evidence (Clarke et al. 2013) suggests Stone Curlew are sensitive to urban edge effects, residential development and recreational disturbance, all of which may negatively impact nest density. This evidence has shown that stone curlews respond to potential disturbance events including road traffic, walkers and dog walkers from long distances. Nesting Stone curlew are also likely to actively avoid buildings, with nesting birds believed to be particularly sensitive to changes in the landscape and built environment.

To address this a 1.5km buffer zone from the edge of those parts of the SPA that support or are capable of supporting Stone Curlew has been developed and adopted by all local planning authorities, which denotes where new development may significantly affect the SPA's stone curlew population. Within this buffer zone new built development requires a Habitats Regulations Assessment (HRA). The HRA process requires consideration of the impact of the proposals alone and in-combination with other developments.

Currently local planning authorities as competent authority for the purpose of HRA are unable to grant permission for residential development within the primary buffer due to concerns over cumulative and in-combination impacts on Stone curlew. Neither Natural England nor the planning authorities currently have the evidence to rule out the likelihood of a significant effect.

This paper has been produced to support updated guidance by Natural England to Local Planning Authorities in February 2023, regarding developments which Natural England advises are below the threshold to act in combination and give rise to the likelihood of a significant effect within the 1500m primary buffer for Stone Curlew. This has been produced at the request of local planning authorities to ensure they understand our rationale in providing that guidance and have confidence when making planning decisions as the competent authority.

Introduction

When ecological consultants are assessing the effect of new development and Local Planning Authorities are determining the outcome of their subsequent planning applications, there is no agreed guidance to identify which developments may proceed sustainably. The lack of specific guidance affecting residential development may prevent sustainable growth which Natural England understands is needed to address important needs for communities in proximity to the SPA.

Natural England advises certain types of development can proceed without further assessment beyond the initial phase of HRA Stage I as they are inconsequential developments with no meaningful capacity to act either alone or in combination. This can be defined by describing the type of developments with which it is associated (e.g. small amounts of infill within an existing urban area).

The guidance for ruling out impacts of small-scale development to Breckland Special Protection Area (SPA) was developed using Stone Curlew Planning Tool (SCPT), a model which predicts the number of Stone Curlew nests lost to a theoretical development. The SCPT is based upon Clarke et al. (2013) & Clarke & Liley (2013), using a predictive equation based on equation M2 on page 71 of Clarke & Liley (2013).

This model represents the best evidence available to Natural England being based on both scientific literature and existing Stone Curlew records. Natural England has used this model along with updated records (where available) to predict impacts on Stone Curlew since 2016 to inform elements of its planning advice.

A number of scenarios have been tested using the tool to inform this advice, modelling hypothetical developments of differing sizes in different locations in the 1.5km buffer zone around the SPA. These have modelled the impact of a new development using the historic Stone Curlew data embedded within the SCPT (nest data collected by the RSPB for the period 1988 – 2011) or recent observed nest data provided by the RSPB and landowners where available (typically the three most recent years).

Methods

Natural England has used the term development threshold to describe the number of residential dwellings that can be reached before they need to be considered in combination as part of an appropriate assessment within an HRA and below which they can be screened out.

The development thresholds for number of new dwellings in each settlement were calculated by looking at the predicted decline in Stone Curlew nest density versus number of dwellings and plotting the results for multiple locations around each settlement.

For each named settlement the impact of housing numbers was tested at incremental intervals from at 1, 5, 10, 20, 50, 100, 200, 300, 500 and 1000 in both the centre and the edge of the settlements. For testing within villages, the locations tested were aligned with the locations of existing and historic planning applications. The numbers of dwellings identified within Natural England's guidance within each settlement is derived from using a predicted displacement equal to or less than a predicted displacement of 1/100th of a nest.

Column A of Natural England's (NE) advice note outlines the types of developments which we advise can be screened out at stage 1 of the HRA process.

This includes development thresholds for the number of new residential dwellings within a settlement boundary for different types of settlements. These included: up to 50 dwellings in Thetford (large town), up to 10 dwellings within market towns and key rural service centres (medium towns) and single dwellings within existing settlement boundaries as defined in the local plan (small towns and villages).

Considerations

The SCPT quantifies predicted stone curlew nest displacement based on changes in the modelled nesting density before and after new development scenarios. This modelled accuracy, however, cannot reflect the potential observed response of stone curlews to new development; either birds are displaced, or they are not. It is, however, necessary to observe the precautionary principle which is enshrined within the Habitat Regulations. Just because the SCPT might not predict displacement of a whole pair, does not mean such effects can be excluded. Neither, however, is it pragmatic to regard modelled displacement of tiny fractions of a single nest to be significant. It is Natural England's judgement, that the observed behavioural response of nesting pairs to modelled predictions equating to just a very small fraction of a single nest, is likely to be tolerance and not displacement. Additionally, separate breeding pairs exposed to such minor potential development effects, where the likely observed response is always no displacement, should not give rise to a cumulative effect given finite development potential.

Natural England has also considered that there are likely to be multiple developments below these development thresholds coming forward at the same time, and that many developers are likely to want to know why two developments of nine are considered insignificant within the key service centres / market towns, but a single development of 18 would be considered significant.

The justification for this is based on the model output and the necessity to choose a development threshold that is sufficiently precautionary from an ecological perspective and sufficiently practical for developers and planners to understand across multiple settlements in proximity to the SPA.

The alternative, to provide no development threshold, would have been unhelpful and created uncertainty. The types of developments which are identified within the guidance are unlikely to have a significant cumulative impact over time due to the limited and finite amount of space available to develop within existing settlement boundaries as defined in the current adopted local plans for each authority and considering the size of the predicted displacement (which are in many cases less than a 1/100th of a nest).

Clarke and Liley (2013) observed "*Where there is existing development close to suitable stone curlew habitat, or high levels of development already, then further development has relatively little additional impact. This would suggest that 'infill' developments in larger settlements will have much less impact than equivalent sized developments in undeveloped areas.*" This emphasises the appropriateness of the types of development which have been outlined within Natural England's small-scale guidance.

Natural England has a high level of confidence that these thresholds are robust and unlikely to significantly impact stone curlew nesting density or have a significant effect on the integrity of the Breckland SPA.

References

Clarke, R.T., Liley, D., Sharp, J.M. & Green, R.E. (2013) Building Development and Roads: Implications for the Distribution of Stone Curlews across the Brecks. *PLoS ONE*, **8**, e72984.

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