

BRECKLAND COUNCIL

Report of PAUL CLAUSSEN, EXECUTIVE MEMBER OF PLANNING, HEALTH & HOUSING to the CABINET – 30TH NOVEMBER, 2010 **(Author: Mark Stokes, Deputy Chief Executive)**

IMPACT OF HOUSING DEVELOPMENT AND ROADS ON STONE CURLEW – THE WAY FORWARD

1. Purpose of Report

The purpose of this report is to set out to Members the current position in terms of the research and understanding of the issues relating to effects of development on stone curlew.

2. Recommendations

It is recommended that the Council/Committee:

- 2.1 Commission a further re-examination of the existing data in respect of building classes (Appendix 2, Table 1, option 1), in respect of the future approach towards development within 1,500m of Breckland SPA supporting stone curlew.

Note: In preparing this report, due regard has been had to equality of opportunity, human rights, prevention of crime and disorder, environmental and risk management considerations as appropriate. Relevant officers have been consulted in relation to any legal, financial or human resources implications and comments received are reflected in the report.

3. Information, Issues and Options

3.1 Background

- 3.1.1 Stone curlews are identified as a species for protection and are listed at Annex 1 of the EU Birds Directive. Stone curlews receive high statutory protection as a result of this designation as being a species of European importance and the designation of the Breckland Special Protection Area (SPA) includes the stone curlew as a qualifying feature. The Breckland SPA is also cited for two other bird species which are woodlark and nightjar.

3.2 Issues

When the Breckland SPA was provisionally designated in 1998, it then hosted approximately 75% of the UK population of stone curlew. Since then, the population of stone curlew has been increasing, and stone curlews have recently moved down from red to amber in the UK 'Birds of Conservation Concern' status list. Notwithstanding this point, they are still rare in the UK (currently around 350 breeding pairs) and the change does not downgrade the importance of protecting the species in an international context. The stone curlew is still afforded high protection in the UK through the Habitats Directive. They are one of the three species for which the SPA was designated in 2006 under the Natural 2000 programme of the European Habitats Directive.

The potential impact of development on stone curlew was highlighted as an issue that the needed to be addressed through the Core Strategy as far back as the year 2007. The initial Core Strategy Habitats Regulations Assessment (HRA) 'state of play' document could not rule out an adverse effect from development on this species and called for further evidence before any conclusions could be reached. As

such, in 2008 the Council commissioned specialist consultants Footprint Ecology to undertake a detailed piece of empirical research to inform the HRA of the final Core Strategy. This research revealed a significant inverse relationship between the frequency of stone curlew nesting attempts and the extent of development up to and beyond a distance of 1,500m. Therefore, in order to ensure that the Breckland Core Strategy could satisfy the requirements of the Habitats Regulations, a 1,500m buffer was introduced with an accompanying policy in order to ensure that the document aspirations of the Core Strategy could be taken forward without resulting in harm to the SPA.

The report will also consider some possible options on the way forward in dealing with development proposals inside the identified 1,500m buffer from the Breckland SPA components supporting, or capable of supporting stone curlew. In particular, this report will look at the options available to the Council for possible expansion of the forms of development can take place in the buffer (in complying with adopted Policy CP10 of the Core Strategy), and those that may be able to take place in future subject to mitigation.

However, before options to expand the forms of development that can occur in the buffer can be considered, a greater understanding of the birds behaviour is necessary to identify why stone curlew nest at lower densities closer to development and roads. Without this further understanding, it is not currently possible to conclude what mitigation measures can reasonably be implemented so that development avoids an adverse effect on site integrity.

Research to date

A number of pieces of empirical research in relation to stone curlew in the Brecks exist and formed part of the Habitats Regulations Assessment (HRA) of the Breckland Core Strategy. There are also further studies (not listed) that have examined particular issues in relation to this species elsewhere in the UK, which consider issues ranging such as breeding biology, habits, and diet.

Reference has also been made to the potential of research undertaken elsewhere in Europe. However, discussions with Natural England and RSPB have highlighted that such evidence cannot be considered applicable/ relevant to the particular circumstances in Breckland. The research used as part of the Core Strategy is as follows:

- i. 'Effects of housing development and roads on stone curlew' – Footprint Ecology (2008). This study is the principal evidence base underpinning the Core Strategy HRA. The study examined buildings from OS Mastermap using postcode data as well as nesting data from the RSPB between 1985-2006 (not held by the Council).
- ii. Footprint Ecology along with Bournemouth University completed further modelling for the Highways Agency in respect of impacts of A11 dualling on stone curlew (2009). This used the same model structure in respect of roads as for their work for Breckland but utilising different values for traffic volumes.
- iii. Stone Curlew Access Response Evaluator (SCARE model) – This is a statistical model, owned by RSPB (not available through the Council), which is used to predict disturbance impacts arising from human activity on nesting stone curlews.

Although a number of other pieces of academic research (not listed here) have examined aspects of stone curlew behaviour, none of these appear to have looked specifically at the interaction between stone curlews and humans in the Brecks (other than the report (i) by Footprint Ecology). This limits their relevance as many of these articles and studies deal with different aspects of species behaviour and

characteristics that are not beneficial in terms of developing mitigation for built development.

In preparing this report, officers from Capita Symonds have convened a meeting with Natural England, RSPB and other Local Planning Authorities within the Breckland SPA. This meeting has established that:

- no other affected authorities have any current research projects under way;
- no authorities are planning any further research;
- there are varying levels of understanding of the impact of stone curlew buffer on plan making and for determining Planning Applications; and,
- there is a recognition that a lack of evidence on causal mechanisms impacts future development management and mitigation.

3.3 **Options**

- 3.3.1 As a first step, it is recommended that Breckland District Council convene a Chief Officer group of affected authorities to discuss whether a clear joint pathway can be found with the aim that all those local authorities that include Breckland SPA contribute to further stone curlew research on a pro-rata basis. The issue of the impact of development on stone curlew is not exclusive to Breckland and it is Capita Symonds recommendation that a joint approach between the four principal authorities is the most robust and participative way forward in the first instance. Such an approach is consistent with the advice and recommendations of both Natural England and the Government Office (East). A broad working split of proportions for discussion would be Breckland 35%, Forest Heath 35%, St. Edmundsbury 20%, King's Lynn 10%.
- 3.3.2 **Option 1** Should the Authority wish to pursue it, is for the Council alone to release funding to commission further research starting with a project along the lines set out in row 1 of Table 1 above as a first step to a better understanding of bird behaviour. The benefits of such an approach are that agreement on the scope of work and commencement would be quicker than a joint approach. Any results would remain the intellectual property of Breckland Council and this would give the Authority control over data release. If the Council is minded to endorse this option, this would enable the Council to have greater certainty when dealing with Planning Applications for commercial or agricultural developments within 1,500m of SPA with stone curlew. However, the current approach restricting residential development within these areas would remain.
- 3.3.3 **Option 2** Breckland Council could singly commission a more comprehensive menu of works to better understand bird behaviour. However, as indicated in Table 1 such options are likely to present a high risk to the Council. However, the Council is reminded that without detailed research study proposals, the estimated costs identified in Table 1 could be significantly higher than indicated. Therefore, such an approach is not recommended at this time due to cost, complexity and risk.
- 3.3.4 **Option 3** The Council could take a 'do nothing' approach in term short term, and continue to implement the policy on a precautionary basis. The Council could then commission a re-run of the existing study for a future Core Strategy review to see if similar effects are found. However, the consequences of this approach are that it does not move the issue any further forward. There is likely to result in more appeals against refusal of Planning Permission along with the continued restriction on the forms of development that can take place within 1,500m of Breckland SPA with stone curlew. This is also likely to present an increase in the likelihood of developers commissioning their own research to which the Council would have to react to within the context of the precautionary approach. Therefore, although this remains an option open to the Council, it is Capita Symonds professional recommendation that

this is not a preferred approach.

3.3.5 Assessment

3.3.6 Should the Council wish to fund or commission any further research projects, these will need the involvement of the RSPB at some level. This is due to the fact that the RSPB currently undertake nest monitoring as part of a wider project on stone curlew and are the data owners in respect of stone curlew nesting locations.

3.3.7 Furthermore, any such research would also need Natural England's endorsement as it would need to form part of the accepted scientific evidence base on this issue. Natural England is the statutory body responsible for defining Special Protection Areas (SPA) and will expect that any research outputs are robust. This is also true of other key environmental stakeholders in the process (such as the RSPB) who would need to understand and accept the findings. If this is not the case, any commissioned research could be subject to challenge if work is used in decision-making is subsequently found unsound.

3.3.8 As has been mentioned earlier in this report, the issue of developing mitigation is not straightforward. One of the underlying principles is that mitigation measures need to be able to be implemented, which means that without an understanding of what the causal mechanisms are, it is not possible to determine whether mitigation will actually be effective.

3.3.9 As highlighted in this report, the current policy position is robust and defensible (as proved by the adoption of two Core Strategies and the Appeal decisions). Breckland Council's overall development strategy can be maintained and is not reliant on demonstrating that development in the buffer is necessary. Therefore, despite the Core Strategy Inspectors remarks, there is an option for the Council to use the existing evidence base and potentially revisit the existing study at the time of a review of the Core Strategy.

3.3.10 Finally, it should be noted that there are only a limited number of experts in the UK who are suitably knowledgeable in relation to this species to undertake such research. This is likely to have implications for the Council in any subsequent procurement exercise that it may wish to undertake.

3.4 Reasons for Recommendation(s)

In conclusion, it is Capita Symonds professional planning advice that Breckland Council initiates high level discussion with adjoining authorities to jointly fund and commission menu item 1. Should this approach not progress in a timely manner that the Council solely commission and fund option 1 to inform (a) review of the Core Strategy, and (b) aid the Development Management process.

4. Risk and Financial Implications

4.1 Risk

Further long term study work is not without risk. There is no guarantee of results that indicate mitigation is possible, and in fact results could strengthen evidence of an adverse effect. Also, committing to long-term further research is likely to be a high cost option due to time and study complexity. Such approaches may raise the prospect that further research questions need to be answered with further costs attached.

4.2 Financial

Dependant on decision.

5. Legal Implications

5.1 None

6. Other Implications [*Insert statement or confirm 'none' as appropriate at each sub-paragraph*]

- a) Equalities:
- b) Section 17, Crime & Disorder Act 1998:
- c) Section 40, Natural Environment & Rural Communities Act 2006:
- d) Human Resources:
- e) Human Rights:
- f) Other: [e.g. Children's Act 2004]

7. Alignment to Council Priorities

- Building safer and stronger communities
- To protect and improve the local environment

8. Ward/Community Affected

8.1 Within the buffer zone of the Breckland Special Protection Area

Background Papers

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Key Decision Status (Executive Decisions only):

Appendices attached to this report:

Appendix A – Core Strategy inspectors report

Appendix – research options

APPENDIX I

Core Strategy Inspector's Reports

Breckland Council Core Strategy

As Members will be aware, the Breckland Core Strategy document was found sound post Examination in Public in October 2009 and was subsequently adopted by full Council on 17th December. The Inspectors binding report into the Core Strategy states at paragraph 3.224 that:

'.....urgent work, including careful monitoring, is essential to provide a better understanding of the interactions between stone curlews and human settlement and to develop practical and effective mitigation measures to compliment the modifications to the policy suggested by the Council. Without such measures we accept, as Natural England makes clear, that it will remain extremely difficult to overcome the presumption against development.'

The above paragraph highlights the Plan Inspectors views on the need for further research in relation to stone curlew and human settlement. However, during the Examination in Public the Inspector was appraised of the complexities associated with understanding the effects of development and the possibility of mitigation. Therefore, it is interpreted that the use of the word 'urgent' implies a need to progress research (which may be time consuming if it is to be robust) as opposed to interpreting 'urgent' as a signal that the work can be satisfactorily concluded within a short timeframe. However, as the opportunity for mitigation remains part of the stepwise process that governs assessments made under the Habitats Regulations, the policy recognises this fact but this will be dependant upon evidence.

Forest Heath Core Strategy

Forest Heath District Council has developed a policy approach very similar to that in Breckland Core Policy CP10. Forest Heath's own policy, developed using Breckland Council's evidence has now been found sound and adopted as part of their Core Strategy (May 2010).

In considering the issue of mitigation, the Forest Heath Core Strategy Inspectors Report states at paragraph 10.10 that:

'....mitigation is a component of the regulatory process and any measures will have to satisfy NE. At the hearings NE confirmed it had agreed mitigation measures for the dualling of the A11 involving the designation and management in perpetuity of a considerable area of land for stone curlews. Similar schemes may not be practicable on smaller sites but it does not mean mitigation should be discounted. It is also possible that over the course of the Plan period measures are found which do work. However, if it is unclear that satisfactory methods of mitigation can be adopted the Habitats Regulations require that a precautionary approach be taken.'

This repeats the Plan Inspectors view that further thought is needed towards mitigation measures. Again, the Inspector highlighted the fact that should these not be able to be implemented then the precautionary principle should be applied.

St. Edmundsbury Core Strategy

St. Edmundsbury Borough Council is further behind in the LDF process than Breckland (and Forest Heath). The Borough Council has relied on Breckland Council's evidence and have recently revised their Core Strategy to put in place new text to replicate a similar approach as found in Breckland towards development and stone curlew. Although their Core Strategy Inspectors Report has not yet been issued, it is unlikely to differ from the Breckland policy approach as the changes were supported at their recent Examination in Public by both Natural England and RSPB.

It is important to note that neither St. Edmundsbury or Forest Heath have commissioned or contributed to new empirical research on the issue of auto-spatial correlation between human settlement and stone curlew nest densities in support of their LDF Core Strategies.

Recent Appeal Decisions

Decision-makers in authorities whose areas include parts of the Breckland SPA with stone curlew have been implementing the policy approach as set out in the adopted Breckland Core Strategy document. Two recent appeal decisions have been returned and have dismissed the appeals and endorsed the approach taken. These are as follows:

Nunnery Stud, Shadwell, Thetford

(Decision APP/F2605/A/09/2117084 - May 2010)

The Inspectorate, in dismissing the appeal against refusal of permission for a dwelling to replace a temporary mobile home endorsed Breckland Council's use of the precautionary principle. The proposal was 500m from the Breckland SPA with stone curlew and not screened by existing buildings and did not comply with the Council's policy. The appellant had not provided any new empirical evidence that the scheme could successfully be mitigated. A copy of the appeal decision is provided at Appendix A.

Winchester House, Hockwold

(Decision APP/V2635/A/09/2115428 - May 2010)

The Inspector, in dismissing an appeal against King's Lynn and West Norfolk Council's refusal of permission for holiday accommodation within 1,500m of SPA with stone curlew at Hockwold-cum-Wilton. The Inspector recognised the importance and status of the policy in relation to the Breckland SPA in the adjoining adopted Breckland Core Strategy document. King's Lynn and West Norfolk Borough Council has been mirroring the approach in Breckland with a similar policy in their Core Strategy. The Borough is due to submit their Core Strategy later in the year. A copy of the appeal decision is provided at Appendix B.

Both of the above appeal decisions have endorsed the precautionary principle in respect of effects of development on the SPA based on the current scientific evidence available. The current policy position has therefore proven to be robust and defensible through the appeal system across the SPA.

Approach to further Research

Developing a greater understanding of the causal mechanisms as to why stone curlews avoid development and roads may point towards potential opportunities for mitigation. The existing body of evidence clearly demonstrates the avoidance of buildings; however as mentioned elsewhere in this report, it does not identify what the exact causal mechanisms are. Depending on what the causal mechanisms might be will also determine whether mitigation is capable of being implemented.

However, it is also possible that the causes of the disturbance effects on the birds are synergistic and are of no single cause. If this was proven to be the case, it would be difficult to ascertain whether mitigation is possible even if a number of pieces of research were commissioned unpicking different aspects of behaviour. Notwithstanding this fact, some possible avenues for further research have been identified.

The Council should also be mindful that gaining answers to some particular questions about the bird's behaviour is not going to be straightforward. In determining the most appropriate approach, Capita Symonds has made a brief high-level assessment of the timescale, cost, risks and relevance of such research approaches. These are detailed in the following section.

APPENDIX 2

Research options

Should the Council wish to further investigate how development affects this species, and consequently whether there are mitigation measures available, a number of possible avenues for further research may be possible.

In presenting these research options, Capita Symonds has taken advice from specialists and practitioners in stone curlew research. Discussions have also been held with Natural England and RSPB and adjoining authorities. The menu of research options presented area considered to be the seven most feasible ways forward at the present time, however, as highlighted in the table the risks associated with some options is high and could increase when the practicalities of implementing research are developed further (i.e. some research options will require extensive controlled areas/ conditions).

The following table outlines a selection of potential research projects and provides a high level analysis of the risks and uncertainties should the Council consider the need to commission such research.

Table 1: Potential research projects, timescales and risk

Opt.	Possible Research project	Timescale	Cost Estimate	Uncertainties/ risk/ probability
1	Re-analyse existing data set for further spatial autocorrelations and examine whether specific building classes (e.g. commercial and agricultural) find the same disturbance effects are present.	Approx. 6 months	Circa £30,000	<p>Risk to Authority Low – Likely to be the least cost research option and most practical first step in meeting Council's aims.</p> <p>Uncertainties Further analysis may not be able to effectively separate out any different results due to inability to control variables within adjoining building/ land use types.</p> <p>Probability of risk occurring Medium – It is possible that results may not yield significant useful data.</p>
2	Undertake detailed fieldwork to look at home range for birds breeding at different distances away from housing. This could include radio tracking or other tracking technology to look at exactly where the birds feed at night and the extent to which presence of buildings etc	This would take many years, as it would be very complex and require a large sample size.	Unknown but estimated to be in excess of £100,000	<p>Risk to Authority High – It is considered the possibility of finding results that further the Council's aims versus high likely cost of such research makes this option high risk.</p>

Opt.	Possible Research project	Timescale	Cost Estimate	Uncertainties/ risk/ probability
	<p>influences behaviour. It is known that the density is reduced near housing, and this fieldwork would only determine whether the birds that do nest (at low densities) in the areas within 1,500m do physically avoid particular areas (e.g. close to buildings) and shape their territories / home range accordingly.</p>			<p>This option would not be as useful if undertaken in isolation and would need further work accompanying it.</p> <p>Uncertainties This piece of research would not explain why the nest densities are actually lower.</p> <p>Probability of risk occurring High</p>
3	<p>Undertake a study using colour ringing data to look at site fidelity. Such a study could aid the understanding of whether there are any differences between birds nesting close to development and those nesting further away – i.e. is it young birds on territory for the first time that nest in areas closer to buildings? Are birds more likely to return to sites used in previous years if the location is close to built development?</p>	<p>It is unlikely that such data could be available and would therefore take some years to achieve.</p>	<p>Unknown but estimated to be in excess of £100,000</p>	<p>Risk to Authority High - High financial commitment with no guarantee of results.</p> <p>Uncertainties This would require a very large sample of individually marked birds.</p> <p>Probability of risk occurring High</p>
4	<p>Examine the breeding success of stone curlew in different locations close to development. A PhD study has already looked at roads and shown that there is avoidance of roads but did not find any difference in breeding success. Possible hypothesis might be that stone curlews distribute themselves so as to avoid areas close to built development, but that there is actually no difference in productivity.</p>	<p>This would require a large sample size and data over multiple years.</p>	<p>Unknown but estimated to be in excess of £100,000</p>	<p>Risk to Authority High – High financial commitment with no guarantee of results.</p> <p>Uncertainties Such a study could still reveal that there remains an adverse effect on site integrity (as a large area is essentially unavailable to the birds), and as a result, looking at breeding success would be unlikely to further the potential for mitigation.</p> <p>Probability of risk</p>

Opt.	Possible Research project	Timescale	Cost Estimate	Uncertainties/ risk/ probability
				<p>occurring Medium</p>
5	Project examining domestic cat activity	Study would require GPS tagging of cats	Unknown but estimated to be in excess of £50,000	<p>Risk to Authority High – High financial commitment with no guarantee of results</p> <p>Uncertainties Such a study could still reveal that there remains an adverse effect on site integrity if domestic cats have greater territory than previously thought.</p> <p>Probability of risk occurring Medium</p>
6	Undertake a project of light Mapping in relation to nesting and home ranges. Data collection procedure exists.	Unknown but likely to be greater than 6 months	Unknown but estimated to be in excess of £50,000	<p>Risk to Authority Medium – This approach has a relatively high financial commitment with no guarantee of results</p> <p>Uncertainties As with any scientific research, the study may not reveal any results that open up opportunities for mitigation.</p> <p>Probability of risk occurring Medium</p>
7	Revisit initial data to determine whether intervening features can be separated.	Approx. 6 months	Unknown but estimated to be in the region of £30,000	<p>Risk to Authority Medium – Likely to be a relatively low cost research option (compared to others) and could be achieved without significant fieldwork.</p> <p>Uncertainties</p>

Opt.	Possible Research project	Timescale	Cost Estimate	Uncertainties/ risk/ probability
				<p>Further analysis may not be able to effectively separate out any different results due to inability to control variables within adjoining features.</p> <p>Probability of risk occurring Medium – It is possible that results may not yield significant useful data.</p>

As can be seen from the above table, none of the options are quick or inexpensive. There may be further alternative approaches not listed; however at the time of writing, no further options have been identified.