o [redacted] indicates where information has been redacted under exemptions / exceptions in the Freedom Of Information Act 2000 and / or Environmental Information Regulations 2004.

WORK PACKAGE ORDER

Framework for Environmental Stewardship Monitoring and Evaluation

FRAMEWORK AGREEMENT AND LOT NUMBER: 24931 Lot 7	**DATE: 20th March 2015**
WORK PACKAGE NUMBER: ECM6924	
FROM: Natural England	**TO:** British Trust for Ornithology (Lot 7)
Foundry House, 3 Millsands, Riverside Exchange, Sheffield, S3 8NH.	The Nunnery, Thetford, Norfolk, IP24 2PU
Project Officer: [redacted]	FAO: [redacted]
Job Title: Senior Specialist, Landscape and Biodiversity	
Telephone No: [redacted]	Telephone No: [redacted]
E-mail Address: [redacted]	E-mail Address: [redacted]

SERVICES:

Evidence Programme Ref: LM0434

Farmland birds work programme 2015/16 – Work Package 1

CONTRACT PERIOD:	

Commencement Date: On signature of this Work Package Order.

Duration: For completion by 31st December 2015.

CONTRACT PRICE EXCLUDING VAT:	**CONTRACT PRICE INCLUDING VAT:**
£50,243.43	**£60,292.12**

CONFIRMATION OF REQUIREMENTS:

The services should be supplied in accordance with:

- The specification (reproduced as attached at Annex A)
- British Trust for Ornithology tender proposal uploaded to Bravo ITT984 and additional breakdown of costs and risk clarifications (Annex B) submitted on Bravo on 11th March 2015.

Timetable – contract to commence as soon as possible following signature of this Work Package Order and be completed by 31st December 2015.

Payment profile:

[redacted]

Terms: Terms and Conditions as detailed and agreed in the Environmental Stewardship Monitoring and Evaluation Framework reference 24931 shall apply to this Work Package Order. Please note in particular clause 9.2 regarding payment terms.

Additional Term:

It should also be noted that, for the purposes of this project and Work Package Order only, in reference to clause 11.4 of the Natural England Terms and Conditions for Services (RDPE Technical Assistance), Natural England hereby agrees to joint ownership of Resulting Intellectual Property Rights of the Module 2 field data that will be produced as part of the Services supplied under this Work Package Order.

SIGNATURE:

Signed on behalf of Natural England:	Signed on behalf of the Contractor:
Authorised Signatory: [redacted]	Authorised Signatory: ..... [redacted]
Print name: [redacted]	Print name: [redacted]
Job title: Senior Procurement Adviser	Job title: Associate Director - Monitoring
Date: 19/3/2015	Date: 9/4/15

Annex A

Specification

Background

Monitoring the response of farmland birds to English agri-environment schemes (AES) is important for three main reasons: because farmland birds are amongst our most threatened wildlife; because they are recognised as good overall indicators of the broad state of farmland biodiversity, and because they are the targeted outcome of AES policy at both national and international level.

Moreover, such monitoring also helps to inform improvements in scheme design and operational delivery, thereby increasing both scheme effectiveness and efficiency (and, hence, value for money). In view of this, at the same time that Environmental Stewardship (ES) was being designed, a monitoring programme for farmland birds was also developed in conjunction with key stakeholders. This programme was structured around gathering information at three complimentary scales: at the option, farm (agreement) and landscape scale. It was considered that collecting information at these three scales would provide the evidence necessary to both evaluate ES delivery for farmland birds and to identify potential changes that could be made that would improve scheme design and delivery.

Since 2005, a number of projects have successfully evaluated the biological and behavioural responses of key farmland bird species to particular elements of ELS and HLS (eg Chamberlain et al. 2009, Field et al. 2011), and ES as whole (eg Davey 2010a &b, Baker et al. 2012, Bright et al. in press). This multi-scaled approach will also be employed within the current four-year Monitoring and Evaluation Framework relating to birds (Lot 7).

Reversing the decline in farmland bird populations was a targeted outcome of ES, and will remain a key priority for its successor AES in England, Countryside Stewardship (CS). This reflects the fact that the state of farmland birds is an 'impact indicator' for AE schemes at an EU level, and that farmland bird populations are used as an indicator of progress with the England Biodiversity Strategy *Biodiversity 2020.* As a result, monitoring the response of key farmland bird species is a key element of the Defra/NE ELMS Monitoring and Evaluation Strategy. Previous work under Lot 7 has successfully repeated the analysis of Baker et al. (2012) using a longer data run, investigated the effectiveness of the supplementary feeding options in ELS and HLS, and conducted a repeat survey (in 2014) of the breeding birds on 65 HLS farms originally surveyed in 2008 and, again, in 2011. This mini-tender includes two modules of work on farmland birds in FY 2015/16 that are necessary to undertake specific elements of the Defra/NE M&E Strategy, ie a review of the performance of English AES and farmland bird population trends to inform Countryside Stewardship (CS), and an evaluation of the packages being deployed through selected HLS agreements in East Anglia to specifically to benefit turtle doves.

The rationale, objectives and outputs/reporting for each module are as follows:

Module 1: Farmland birds – a review of AES performance and farmland bird population trends to inform Countryside Stewardship

Rationale

A range of studies have been conducted on the effects AES management on birds, both in the English lowlands and uplands, while there may also be relevant messages from studies of the schemes in place in other countries. There is a clear gap in the literature for both a

collation of the patterns across different studies, taking into account the pros and cons of local and national-scale studies, and an update of the interspecific patterns of long-term population change of farmland birds in England, which were last summarized in the peer-reviewed literature in 1998. The resulting review will provide an evaluation of the likely effects of ES (and previous English AES schemes, if appropriate) on birds at different geographical scales to inform future delivery through the new Countryside Stewardship (CS) scheme, and to inform the formal review of ES i.e. in the context of the stated impact/result indicators (note: the key result indicator that this work will contribute to is 'Site/landscape level response of key species groups to management options', and the key impact indicator 'Trends in Farmland Bird Indicator'). The work should therefore provide useful evidence to inform both policy and operational delivery.

Objectives

1.1. To review recent studies on the effects of management relevant to CS on bird populations
1.2. To summarize national population trends of key species
1.3. To assess the overall impact of English AESs on birds through collation of evidence

Duration

April - June 2015

Outputs & Reporting

The results will be written up as a high-profile scientific paper submitted to a high-impact, peer-reviewed journal. A 2 page summary for Defra/NE will also be produced .

A draft report/draft scientific paper should be produced by 8th June 2015.

A final report/scientific paper and 2 page summary should be produced by 30th June 2015.

Module 2: Evaluating Natural England's Turtle Dove HLS package

Rationale

The turtle dove is declining faster than any other bird in England (by 88% since 1995) and is one of 52 birds listed on Section 41 (http://webarchive.nationalarchives.gov.uk/20140711133551/http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx) and, hence, is considered by the Secretary of State as 'of principal importance for the conservation of biodiversity in England'. ELMS are the principal mechanism to deliver sympathetic land management for the species. However, due to the rate of decline and, hence, increasing scarcity of the species, previous work evaluating the delivery of ELMS for farmland birds have not been able to include the turtle dove. This is despite the fact that the species has been the subject of a dedicated species recovery initiative *Operation Turtle Dove* (see http://operationturtledove.org/) which undertakes a range of targeted actions, including promoting a package of turtle dove-friendly land management measures to farmers through HLS. There is, therefore, an urgent need to evaluate the efficacy of HLS for turtle doves.

This module will provide the first field-based evaluation of bespoke ELMS management for turtle doves, as implemented through HLS. It will test whether:
1. management provides abundant and accessible seed food;

2. suitable nesting habitat is being maintained in close proximity to foraging areas;
3. turtle doves settle to breed close to the bespoke management.

It will also provide a reference point for a future re-survey to determine whether the bespoke HLS management is associated with a more favourable local population trend for turtle dove than in the surrounding countryside (assessed using Breeding Bird Survey data). An up-to-date spreadsheet providing details of HLS agreements undertaking turtle dove management will be provided, but the project should seek to include around 30 such 'sites' in East Anglia to provide a robust sample.

Furthermore, the approach to delivering for turtle doves through HLS has been a precursor to our approach for delivering for 'bespoke' species more generally through CS – assessing the efficacy of this approach could therefore provide valuable insights for our delivery for other such species when CS becomes operational.

Note: this project will compliment other ongoing work investigating both the decline of the turtle dove and potential remedial action, including a PhD study at the University of Leeds (funded by NE and RSPB) that is investigating the effects of the disease *Trichomonas* which has been shown to cause mortality in both adults and nestlings, and could also cause sub-lethal effects (eg reduced food intake, body condition and breeding success).

Objectives

2.1 To assess whether bespoke HLS management delivers suitable nesting and foraging habitats for turtle doves.
2.2 To assess whether turtle doves select areas of bespoke management relative to availability.
2.3 To assess whether deployment of the Turtle Dove HLS Package can halt or reverse population decline at the farm scale (note: this will require a subsequent re-survey and be delivered by a separate contract).

Duration

April-December 2015

Outputs

A progress report at the end of the field season should be provided by 31st August 2015.

The results will be written up as a scientific paper in a peer-reviewed journal. A written report to Defra and NE on the quality of individual HLS agreements for turtle doves, and the scope for agreement improvement, including a 2-page summary on the overall findings of the work.

A draft report/draft scientific paper should be produced by 7th December 2015.

A final report/scientific paper and 2 page summary should be produced by 31st December 2015.

Governance and Timetable

The project manager within Natural England will be [redacted] who will be the first point of contact within Natural England. The successful contractor must also appoint a project leader who will be responsible for the management and delivery of the project and will act as the liaison point with the NE project officer.

A brief inception telecall will take place within three weeks of the start of the contract. A telecall or face-to-face meeting (tbc by the NE project manager) will take place after the submission of the first draft report emanating from module 1. A further telecall or face-to-face meeting (tbc by the NE project manager) will take place after the submission of the first draft report emanating from module 2.

Tenders should include a project plan detailing the activities required to complete the contract together with proposed milestones linked to invoice points (maximum of 3 invoice points)

As the project is being funded through the Rural Development Programme for England, there will be particular requirements around the submission of invoices, and the contractor will be required to supply supporting information on time used and expenses incurred with the invoice. This will be clarified at the inception meeting.

Indicative Timetable

Contract Let	**w/c 9.03.2015**
Inception Meeting	**By 16.03.2015**
Module 1 Draft Report/Draft Scientific Paper	**By 8.06.2015**
Module 2 Draft Report/Draft High-Profile Scientific Paper	**By 7.12.2015**
Module 1 Final Draft Report/Scientific Paper and 2 Page Summary	**By 30.06.2015**
Module 2 Final Draft Report/Scientific Paper and 2 Page Summary	**By 31.12.2015**

Yours sincerely

[redacted]

Senior Procurement Adviser

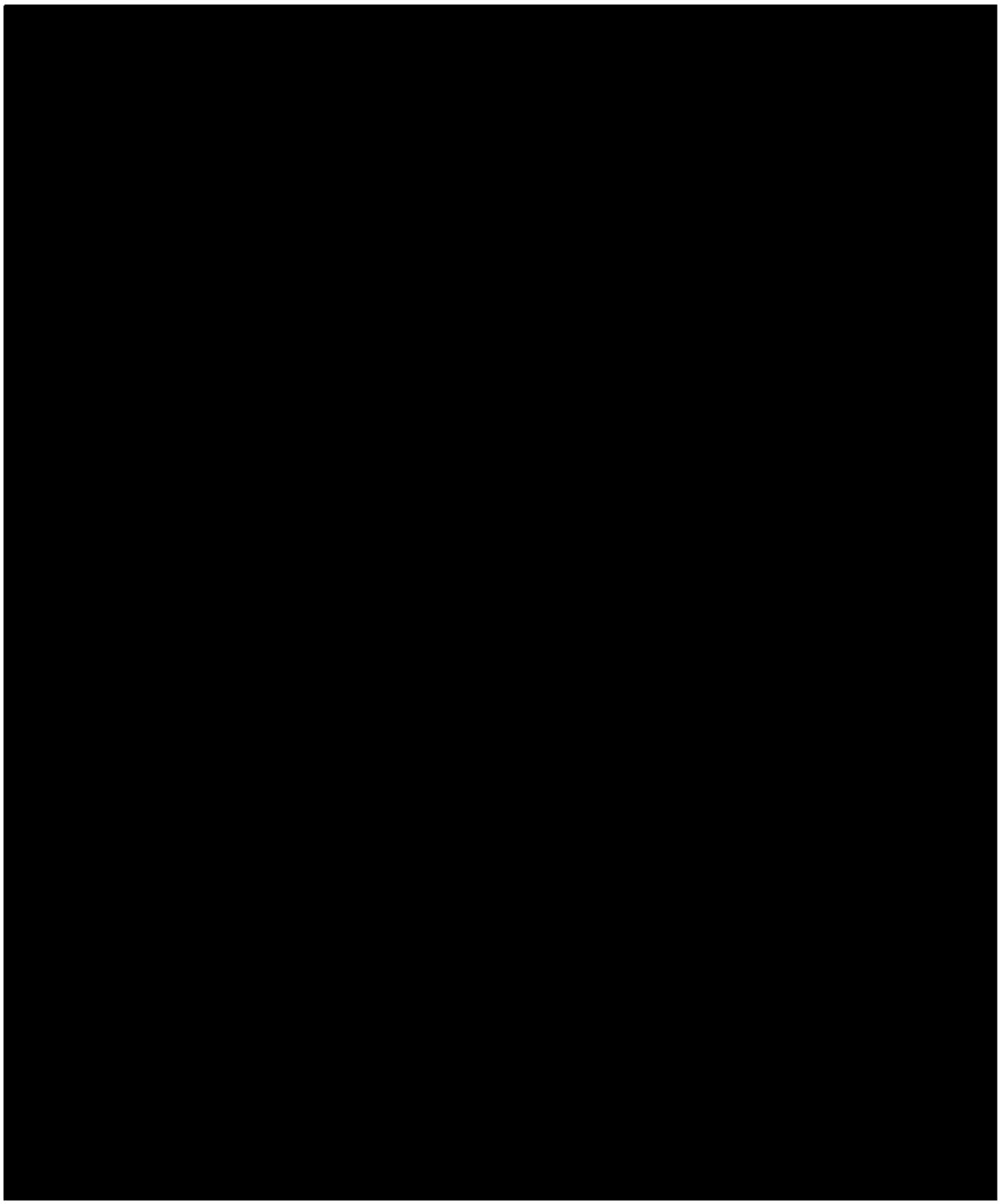
References

Baker, D.J., Freeman, S.N., Grice, P.V. & Siriwardena, G.M. 2012. Landscape-scale responses of birds to agrienvironment management: a test of the English Environmental Stewardship scheme. *Journal of Applied Ecology* 49: 871–882.
Chamberlain, D, Gough, S, Anderson, G, Macdonald, M, Grice, P, Vickery, J 2009. Bird use of cultivated fallow 'Lapwing plots' within English agri-environment schemes. *Bird Study* 56: 289–297.
Davey, C, Vickery, JA, Boatman, ND, Chamberlain, DE, Parry, HR & Siriwardena, GM 2010a. Assessing the impact of Entry Level Stewardship on lowland farmland birds in England. Ibis 152: 459–474.
Davey, C, Vickery, J, Boatman, N, Chamberlain, D, Parry, H & Siriwardena, G 2010b. Regional variation in the efficacy of Entry Level Stewardship in England. Agriculture, Ecosystems and Environment 139: 121–128.

Field, R. H., Morris, A.J., Grice, P.V. & Cooke, A. 2011. The provision of winter bird food by the English Environmental Stewardship scheme. *Ibis* 153: 14-26.

Annex B

ITT984 – Farmland Birds Work Programme 2015/16 (Work Package 1)



[redacted]

Risks to delivery

- 1) Insufficient HLS sites with implemented turtle dove packages. Preliminary indications using agreement data held by Natural England and the RSPB suggest that this risk is unlikely to be realised.

Meeting between Natural England Advisors and RSPB Conservation Science staff took place in early March to confirm that sufficient agreements were available to survey in East Anglia. This is the case, so the risk has already been evaluated and discharged: fieldwork will proceed as planned.

- 2) Unable to collect field data due to force majeure or failure to appoint staff. This is also considered to be low risk.

RSPB has already (March 2015) been able to appoint an experienced member of staff [redacted] currently working on HLS bird population trends as part of ES Monitoring Lot 7), so RSPB will have someone in place to start this work on schedule. Should, at any point during the work programme, the appointed member of staff be unable to carry out the work planned (e.g. leaves RSPB employment, illness etc.), then RSPB would inform Natural England immediately. It is very likely that RSPB would be able to employ a replacement member of staff from our pool of experienced staff / applicants for contracts, but if this is not possible we will discuss with Natural England whether to suspend, reschedule or terminate the project.

Force majeure may include prolonged periods of bad weather, in which case we may not be able to complete all the planned data collection. We will evaluate the situation throughout the field season (May-July) and discuss with Natural England staff the prioritisation of data to be collected if there are constraints on time. Time for bad weather days has been built into the timeframe for fieldwork, so the weather conditions would have to be severe and prolonged to have a serious impact. Our sample of sites (20-25) is sufficient to allow some loss of data collection.

Force Majeure could include a catastrophic event that prevents access to farmland (e.g. foot and mouth disease outbreak). There is no suggestion of such a catastrophic event affecting arable farmland at present. Should it breakout at any time before or during the fieldwork period (May-July), RSPB will immediately consult with Natural England to determine whether surveys should be suspended or cancelled. Should this be the case, a decision may be made to defer the work to a future year (if outbreak occurs early in the summer), or we may be able to proceed with some analyses if some data have already been collected.

- 3) Too few turtle doves are recorded. Should this be the case, it may not be possible to analyse habitat preferences using Compositional Analysis.

Should this be the case, we will notify Natural England staff that a Compositional analysis is not possible once the turtle dove records have been collated and input into spreadsheets and GIS (Sept /Oct). Even if too few turtle doves are detected to undertake Compositional Analysis of habitat preferences, the field surveys will still provide plenty of other data to analyse, e.g. on option establishment , vegetation structure; spatial arrangement between foraging and nesting habitat. Unless very few turtle doves are detected, the data from mapping territorial birds can still be used, e.g. to investigate proximity to option location or type, or changes in abundance over time (if there is a resurvey).