

## ORDER FORM / WORK PACKAGE ORDER

### FROM

<b>Authority</b>	Secretary of State for Environment, Food and Rural Affairs
<b>Address</b>	Defra Group Commercial 2 <sup>nd</sup> Floor, Foss House 1-2 Peasholme Green York YO1 7PX
<b>Contact Ref:</b>	Via Bravo messaging or Email: Network.Procurement@Defra.Gov.uk
<b>Order Number</b>	Ref: ECM_53149
<b>Order Date</b>	27 September 2018

### TO

<b>Contractor</b>	Land Use Consultants
<b>For attention of:</b>	Name: [REDACTED] Phone: 0117 929 [REDACTED] E-mail: [REDACTED]@Landuse.co.uk
<b>Address</b>	43 Chalton Street London NW1 1JD

### 1. SERVICES REQUIREMENTS

#### (1.1) Services [and deliverables] required:

##### Contract Requirements

This contract aims to update the findings from previous research in BD5303/LM0429 by updating to 2018 the existing Indicators and Thresholds data set at 2013, taking account over the past 5 years of the flux of additional (and terminated) ES and CS agreements since 2013. The project also aims to update the database that accommodates the findings - from the existing static MS Access format to a dynamic database that is more accessible and open to users and more efficiently updated. The contract therefore comprises 4 objectives with associated tasks and outputs:

- Objective 1: Review - existing methods, data and approaches
- Objective 2: Update to the LM0429 database and integral NCA assessments
- Objective 3: Refinement of a new model for an NCA landscape change database (using open source data and more efficiently accessed and updated), populated with the updated data for associated indicators and thresholds
- Objective 4: Evaluations for set of specific themes - comparative analyses and reports

The tasks are described in more detail below:

### **1. Review and report on existing and proposed methods and approaches:**

- A) A succinct assessment of the existing (2013) database – its methods, and supporting data for stock of features and uptake of ES scheme options; any potential constraints or opportunities that may need to be taken into consideration; suggest further stands of enquiry, sources of data or approaches/techniques, to inform a refined and agreed method for the project.
- B) Options for enabling the database revised in project LM0429, to be further updated and adapted as required, to enable forward compatibility with future AES monitoring & evaluation projects. To enable on-going database updates and allow for comparison with existing and historic data to maintain continuity and a consistent approach to evaluation over time.

### **2. Update to the LM0429 data for incorporation into the NCA landscape change database**

Please note that these tasks will also require landscape specialist, GIS software and data analysis input. The *CEH Landcover Map 2015* data will be critical for this task (to be provided by Natural England, either at contract commencement or following inception meeting).

#### **2a Update to LM0429 agri-environment data and NCA assessments**

- C) Propose and implement (method to be agreed with Natural England) an update to the existing LM0429 ES Indicators and Thresholds (MS Access) data, and incorporate it into the refinement of the new NCA landscape change database.
- i. Review the LM0429 method, including the key questions for sequential steps described in para 2.7. Identify the characteristics, indicators and data required to assess *an additional (8<sup>th</sup>) theme for: 'rivers, lakes/ponds'*.
  - ii. Identify and assess the synergies in scheme options applied in ES agreements and the more recent CS scheme agreements - to provide good continuity between the 2013 report and the 2018/19 update report.
    - o This will need to consider how CS scheme options have been deployed 'in the field', and their effects on relevant landscape characteristics, by comparison with ES scheme options. Depending on the level of accordancy between the ES and CS options (as identified through this review), some closely targeted field work might be needed to verify effects of CS options on landscape character.

- The LM0456 field survey reports (see Annex 1) and an initial analysis (spreadsheet) of synergies between ES and CS options can be provided to assist with this task.
- iii. Compare equivalent options under ES and CS delivering for landscape character and identify and document processing rules to allow for comparison between ES and CS options and between 2013 and 2018 data.
- iv. It is likely that for feature stock data, the CS groupings will not be an exact match against the ES (2013) groupings, therefore a review of stock data and option uptake units needs to be allowed for in the method.
- v. Process and update to the 2018 data, showing ES and CS option uptake, and spatial distribution of uptake per NCA (to be provided by Natural England, either at contract commencement or following inception meeting), in order to update the LM0429 data and undertake a comparative analysis 2013 and 2018 feature stock and ES/CS scheme uptake data.
- vi. Update the statistical and summary assessments (found in the LM0429 report) for the 159 NCAs using the existing suite of indicators and thresholds (i.e. neutral, positive, strongly positive).

## **2b Refinement of NCA landscape change database, and population with agri-environment change data**

- D) A model for the new NCA landscape change database (includes atlas, dashboard and supporting GIS tool) has been developed (See **Annex 2**) to replace the existing MS Access database and accommodate the agri-environment data in a way that is more open and efficiently accessed and updated; the model requires some further refinement of user-interface functions using *Instant Atlas online and/or Webb App Builder* (ESRI platform). The main tasks are:
- I. Refinement to some of the user interface functions (allow 8 days technical input for the purposes of this contract)
  - II. Review and definition of approximately 50 statistical indicators under 8 themes (the existing 7 themes from Table A1 in the LMO429 Method, plus the new theme for rivers, lakes/ponds), followed by identification/listing and sourcing of associated data to incorporate into the NCA landscape change database.
  - III. Data acquisition. Data to be largely supplied by Natural England (to include agri-environment ES/CS data on options uptake and closure for the period 2013-2018).

- IV. Data processing and population of the database for approximately 50 indicators across the 8 themes
- V. Initial analysis and evaluation of the NCA landscape change database results for approximately 50 indicators across the 8 themes at the scale of the 6 Agricultural Landscape Types (ALTs), and the 159 NCAs (with specialist landscape input)

**3. Evaluations** (as a guide it is anticipated that evaluations will require approximately 15 days each, including spatial/census data analysis, landscape evaluation expertise, and illustrated examples)

F) Using findings from the updated database - provide analysis, evaluation and reports including:

- i. What options work well/ not so well for landscape character relative to the 6 Agricultural Landscape Types, and relative to local area objectives (other than NCAs - e.g. selected focus areas, designated landscapes).
- ii. A focus on the landscape effects of arable/in-field options and resource protection options, using concise case studies, to inform how to maximise landscape benefits.
- iii. How scheme options contribute to making landscapes more resilient to climate change and other key drivers. (See also Annex 1 for LM0448: Contribution of AES to Climate Change Adaptation)
- iv. Overall opportunities for improving CS scheme design and targeting of scheme options to conserve and enhance landscape character

#### **4. Reports**

G) An overview report on approach and methods, findings from the updated LM0429 data and refinement of the new NCA landscape change database. To include a 2 page summary of findings.

#### **Summary of outputs**

##### **Phase 1**

- A. Review of existing database, data, methods,
- B. Review of equivalent options under ES and CS to allow continuity in analysis so that the findings are not only a 'snapshot' but offer continuity in on-going monitoring.
- C. Full updated data from 2013 to 2018, including data processing, and 159 NCA brief

summary assessments across indicator themes.

D. Refinement of the NCA landscape change database, and data population from output C

E. Draft report for A-D above, plus draft, see Annex A for template, of key findings for phase 1

### **Phase 2 Evaluations:**

F. Eval 1: An updated assessment (based on the findings of the updated database and existing research in Annex 1) of how effective different options are for the maintenance and enhancement of landscape character. Focussing primarily at the scale of the 6 Agricultural Landscape Types, including the 8 themes, and using selected NCAs as examples to highlight opportunities and trends.

Eval 2: To identify (expanding on Eval 1) generic opportunities to improve scheme design/options, and targeting, for the maintenance and enhancement of landscape character

Eval 3: Using the updated findings (and existing research) on uptake of arable and resource protection options, to assess the spatial and practical implications for the maintenance and enhancement of landscape character, and provide some guidelines on how these options can be better targeted and applied.

Eval 4: Using the updated findings to make a broad assessment of how options are making landscapes more resilient in terms of the potential effects of climate change and where agri-environment schemes can better reinforce the diversity and complexity of landscape features (at ALT scale with examples at NCA scale).

G. Final reports

- Full report, including A-F (incl. all evaluations undertaken)
- 2 Page summary (see Annex A for template) of key findings for phase 1 and 2

### **Contract Management**

- A project initiation meeting between Natural England and the Contractor will be required at the start of the project. This will focus on the contract responsibilities, project work flow/tasks, timescales and milestones, provision of updates, payments
- The Contractor will nominate a project leader authorised to act on behalf of the Contractor who will be responsible for the management and delivery of the project and will act as the liaison point with the Natural England project manager.

- This project will be overseen by a project steering group made up of Natural England, Defra (and others if applicable) and will meet up to 4 times throughout the course of the project. The Natural England project manager, jointly with the project leader, will be responsible for setting up meetings, which will be held either at Natural England/Defra offices or as teleconferences, as appropriate.
- Secretariat and production of minutes from meetings is the responsibility of the Contractor, who will share meeting minutes with the project team, Natural England and the steering group, where applicable.
- The Contractor/project leader will send a short (no more than 1 page A4) progress update to the project officer once a month. The form of these updates will be agreed in the inception meeting.

## **Reporting**

- A final report will be required to present the results obtained from the strands of work within the project; the format of the presentation of this report will be agreed between the project manager and project leader (likely to include MS Word and PDF formats). Contractor should allow for reports to include appropriate graphics such as charts and images.
- The Contractor must submit the draft Final Report to Natural England for comment.
- Contractor should be aware that Natural England and Defra intend to publish final reports.
- The Contractor will be responsible for ensuring both the quality of the work as well as the presentation of the material (e.g. proof reading, ensuring clear English). The Contractor is also to be aware that Natural England requests acknowledgement in the publication (including oral presentations) of its funded research, and that the project manager is notified at least two weeks prior to publication.
- The final report will be externally peer-reviewed (note: the Contractor will be responsible for arranging peer-review by two appropriate reviewers, to be agreed with the Natural England project officer) and be suitable for publication as a Defra science report.
- Natural England is also happy to encourage widespread publication and welcomes the use of appropriate trade press, peer-reviewed journals, sector-specific journals and appropriate use of social media. Given a suitable platform, the results of the project should also be presented at relevant scientific fora. Note: If the findings of the work are deemed suitable, the Contractor will aim to submit a manuscript to a peer-reviewed journal as soon as possible after completion of the report, co-authored by staff from the

Contractor and Natural England, as appropriate. A proposed timetable for submission of manuscript and publication timeline will be agreed with Natural England.

This project will be undertaken over a period of approximately 15 months, in 2 phases:

- **Phase 1:** commencing in September 2018 and completing in March 2019,
- **Phase 2:** (subject to Natural England budget confirmation) commencing in April 2019 and completing in December 2019

It is anticipated that the Review, updating of the LM0429 data and refinement to the NCA landscape change database at will be undertaken in Phase 1, and the evaluations will comprise Phase 2.

Phase 2 will be subject to confirmation of available funding for 2019/20 and successful delivery of Phase 1. Confirmation of the second phase will be communicated to the Contractor before March 2019 and confirmed by both parties via a Contract Change Note (CCN).

### **Milestones**

Compulsory milestones are as follows:

- Interim report by 30 December 2018
- Completion of Phase 1 (incl update to database) by 28 February 2019
- Completion of Phase 2 Evaluation theme reports by 30 August 2019
- Submission of overview final report and 2 page summary by 15 December 2019 (please note, payment will not be released until the report has been reviewed and deemed satisfactory by the project manager).

**(1.2) Commencement Date: 27 September 2018**

**(1.3) Completion Date: 31 March 2019**

**(1.4) Extension, via Contract Change Note, to: 30 December 2019**  
Subject to availability of funds and satisfactory Supplier performance.

## 2. PERFORMANCE OF THE SERVICES [AND DELIVERABLES]

### (2.1) Key Personnel of the Contractor to be involved in the Supply of the Services

██████████, Landscape Planner – Project Manager

██████████ GIS & Visualisation – Director in charge of Project

██████████, Environmental Planning

██████████ Rural Focus Ltd

██████████ Landscape / Seascape Planner

██████████ GIS Consultant

██████████ Landscape Manager

██████████ Landscape Manager

██████████ Landscape Manager

### (2.2) Performance Standards

This project will be overseen by a project steering group made up of Natural England, Defra (and others if applicable) and will meet up to 4 times throughout the course of the project. The Natural England project manager, jointly with the project leader, will be responsible for setting up meetings, which will be held either at Natural England/Defra offices or as teleconferences, as appropriate.

The final report will be externally peer-reviewed (note: the contractor will be responsible for arranging peer-review by two appropriate reviewers, to be agreed with the Natural England project officer) and be suitable for publication as a Defra science report.

### (2.3) Location(s) at which Services are to be provided:

At contractor's premises as appropriate + steering group meetings at appropriate venues as agreed.

### (2.4) Standards:

- Land Use Consultants: Environmental Sustainability Principles.
- Land Use Consultants: Project Risks and Contingencies.
- Compliance with Health & Safety Policy, as per Framework Agreement.

### (2.5) Contract Monitoring Arrangements

For the avoidance of doubt the services required are being provided under Framework Agreement 23735

### 3. PRICE AND PAYMENTS

#### (3.1) Contract Price payable by the Authority excluding VAT, payment profile and method of payment (e.g. Government Procurement Card (GPC) or BACS))

Phase 1 - [REDACTED] - Total £49,925

Phase 2 - [REDACTED] - Total £32,625

**See Annex A for Full Pricing Schedule**

#### (3.2) Invoicing and Payment

The Supplier shall issue an electronic invoice in arrears following completion of Phase 1 of the project.

Should Phase 2 go ahead, the Supplier shall issue a second electronic invoice in arrears following completion of this Phase.

### 4. Invoicing Requirements

All invoices should be sent, quoting a valid purchase order number (PO Number), to: [Accounts-Payable.neg@sscl.gov.uk](mailto:Accounts-Payable.neg@sscl.gov.uk) or Shared Services Connected Limited, PO Box 790, Phoenix House, Celtic Springs Business Park, Newport, Gwent, NP10 8FZ. Within 10 Working Days of receipt of your acceptance of this Work Purchase Order via Bravo, we will send you a unique PO Number. You must be in receipt of a valid PO Number before submitting an invoice.

To avoid delay in payment it is important that the invoice is compliant and that it includes a valid PO Number, PO Number item number (if applicable) and the details (name and telephone number) of your Customer contact (i.e. Contract Manager). Non-compliant invoices will be sent back to you, which may lead to a delay in payment. If you have a query regarding an outstanding payment please contact our Accounts Payable section either by email to [Accounts-Payable.neg@sscl.gov.uk](mailto:Accounts-Payable.neg@sscl.gov.uk) or by telephone 0845 603 7262 between 09:00-17:00 Monday to Friday.

**BY APPROVING THIS ORDER FORM THE CONTRACTOR AGREES** to enter a legally binding contract with the Authority to provide to the Authority and natural England the Services specified in this Order Form, incorporating the rights and obligations in the Call-Off Contract that are set out in the Framework Agreement entered into by the Contractor and Defra on 11 06 2018.

#### Electronic Signature

Acceptance of the award of this Contract will be made by electronic signature carried out in accordance with the 1999 EU Directive 99/93 (Community framework for electronic signatures) and the UK Electronic Communications Act 2000. Acceptance of the offer comprised in this Contract must be made within 7 days and the Agreement is formed on the date on which the Contractor communicates acceptance on the Customer's electronic contract management system ("Bravo"). No other form of acknowledgement will be accepted.

## **ANNEX 1: SUMMARY OF RELEVANT RESEARCH AND FINAL REPORTS**

**BD5303:** Monitoring the effects of Environmental Stewardship on Landscape Character and Quality. Synthesis Overview: methods, summary of findings and conclusions (2013)

**Aims:**

- Produce a new database of key landscape characteristics that enables evaluation of landscape character and quality at a variety of scales.
- Review the landscape character and quality methodologies and outputs from any previous evaluations of Environmentally Sensitive Areas (ESAs), Countryside Stewardship (CSS) and ES mid-term evaluations (and evaluations and reviews of their effectiveness) to identify 'lessons learned', best practice and lessons for this project.
- Develop and test through substantial pilot work a method which can be used as part of widespread monitoring and evaluation.
- Use the developed method to set out and evaluate counterfactual scenarios that identify the effect of ES on landscape character and condition; and the effect of large scale coverage versus scattered locations.
- Use the database of key characteristics, along with information and outcomes from piloting the method to....
- Develop robust 'Indicators of Success' at an appropriate scale for all landscapes to enable the measurement of progress in maintaining and conserving character and quality, linking this work into the current NE project that is developing field-based assessment forms and guidance for assessing HLS delivery;
- Design a framework (or flow diagram) which allows the identification of thresholds indicating where changes in land management would begin to impact on landscape character, quality and function (for example resilience to climate change), and whether these impacts are positive or negative.
- Compile a detailed, analytical report, based on the results of objectives above, which identifies and examines amendments and improvements to scheme operation that would improve delivery of the maintenance and enhancement of landscape character and quality and that takes into account scheme development, including ecosystems services and climate change objectives.

**LM0429:** Developing Indicators and Thresholds for Monitoring the Landscape Impacts of Environmental Stewardship at the National Character Area Scale. Method report and Database Assessment report for NCAs (2013)

**Aims:**

- Provide indicators and thresholds of landscape impact at NCA scale. This is to help better monitor the landscape impact of ES and to facilitate improved future agri-environment delivery that will secure good and enhanced landscape benefits through the targeting of appropriate land management options to particular places and in the quantity needed to have a significant landscape impact.
- Indicators and thresholds to be developed based from the detailed evidence being obtained through the Defra BD5303 research and development project, 'Monitoring the Effects of Environmental Stewardship on Landscape Character and Quality'.

**LM0456:** Monitoring the contribution that Environmental Stewardship is making to the maintenance and enhancement of landscape character and quality: Analysis of Rapid Survey data from 2014-2016. Available on Defra Science and Research page at:

**Aims:**

- Assess the impact of Environmental Stewardship (ES) on landscape character and quality in selected areas to be agreed with Natural England at the inception of the contract;
  - Allow potential comparative research into landscape change over time on holdings where agri-environment agreements cease;
  - Further develop the survey work undertaken during 2014 to provide a comprehensive baseline to underpin the future monitoring of the landscape outcomes of both ES and CS schemes. This will involve utilising field monitoring techniques developed by 'BD5303 (Annex 2 ) and further refined during 2014 in a rapid field survey approach
  - Propose any further refinements to the rapid assessment methodology where these are identified including provision of recommendations for improvements to future field work undertaken in terms of logistics, potential for co-ordination with other survey teams, recording and reporting mechanisms;
  - Analyse the field survey results and compare findings with those of the 2014 survey, BD5303 and the NCA threshold results of the LM0429 project.
- 

**LM0448:** Contribution of AES to Climate Change Adaptation

**Aims**

- The purpose of this project is to establish an integrated methodology for evaluating the impact of incentive schemes on climate change adaptation for biodiversity at a national, landscape and farm scale. This will consider; how the schemes are operated, how action is targeted, where options are located and whether option prescriptions suit. At the finer farm scale the contribution of AE schemes to ecosystem based adaptation will also be evaluated.
  - The project will evaluate the spatial distribution of different types of management under AE agreements nationally against a range of spatial datasets relevant to climate resilience and vulnerability, to understand whether existing agri-environment management options are 'broadly in the right place' for different adaptation priorities. The project will then extend this approach to develop and test a methodology for identifying and evaluating adaptation at the farm level.
  - The project will result in a methodology that will be incorporated into future AE scheme monitoring and a national baseline dataset to compare future change.
- 

**ANNEX 2: Prototype Development of NCA Pilot Atlas** (incorporating the NCA Change Atlas and supporting GIS Tool)

A Report (PDF format) summarising the work commissioned from Land Use Consultants in 2017/18, can be downloaded from the attachment section of Bravo tender invite number ITT 4760 Titled 'Annex 2 NCA Pilot Atlas, prototype report June 2018'.

**ANNEX A**

**AESME Lot 6 Monitoring the Impact of Stewardship on Landscape Character, Quality and Resilience**

**Pricing schedule**

<b>Output</b>	<b>Staff grade</b>	<b>Daily rate</b>	<b>Input (days)</b>	<b>Total (excl VAT)</b>
<b>Phase 1</b>				
A. Review of existing database, data, methods	Senior Project Manager	■	■	■
	Project Manager	■	■	■
	Specialist	■	■	■
	Support	■	■	■
B. Review of future scheme priorities/options	Senior Project Manager	■	■	■
	Project Manager	■	■	■
	Specialist	■	■	■
	Support	■	■	■
C. Full update to LM0429 data from 2013 to 2018, with 159 NCA summary assessments	Senior Project Manager	■	■	■
	Project Manager	■	■	■

	Specialist	■	■	■
	Support	■	■	■
	Peer review	■	■	■
D1 Refinements to NCA landscape change database	Senior Project Manager	■	■	■
	Project Manager	■	■	■
	Specialist	■	■	■
	Support	■	■	■
D2 Acquisition and loading of updated data for approx. 50 indicators	Senior Project Manager	■	■	■
	Project Manager	■	■	■
	Specialist	■	■	■
	Support	■	■	■
E Draft report for A-D above and 2 page summary	Senior Project Manager	■	■	■
	Project Manager	■	■	■
	Specialist	■	■	■
	Support	■	■	■
	Peer review	■	■	■

<b>Phase 1 total</b>			■	■
<b>Phase 1 expenses</b>				■
<b>Phase 1 total (incl expenses)</b>				<b>£49,925</b>

<b>Phase 2</b>				
F.1 Eval: Option effectiveness for landscape character	Senior Project Manager	■	■	■
	Project Manager	■	■	■
	Specialist	■	■	■
	Support	■	■	■
F.2 Eval: Opportunities and guidance to optimise scheme design/options for landscape character	Senior Project Manager	■	■	■
	Project Manager	■	■	■
	Specialist	■	■	■
	Support	■	■	■
F.3 Eval: Focus on arable/resource protection options	Senior Project Manager	■	■	■
	Project	■	■	■

	Manager			
	Specialist	■	■	■
	Support	■	■	■
F.4 Eval: Options making landscapes resilient	Senior Project Manager	■	■	■
	Project Manager	■	■	■
	Specialist	■	■	■
	Support	■	■	■
G. Final report and 2 page summary of overall findings	Senior Project Manager	■	■	■
	Project Manager	■	■	■
	Specialist	■	■	■
	Support	■	■	■
	Peer review	■	■	■
<b>Phase 2 total</b>			■	■
<b>Phase 2 expenses</b>				■
<b>Phase 2 total (incl expenses)</b>				<b>£32,625</b>

<b>Grand total (sum of Phases 1 and 2 incl expenses)</b>			■	<b>£82,550</b>
--	--	--	---	----------------