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| Date: 09/09/2022  Ref No: HG-16-08643 LIFE 17 NAT/UK/000570 |  |

Reply by email only to Richard.storton@naturalengland.org.uk

**Request for Quotation**

**Requirement for independent expert advice on the geomorphological feasibility of dune rejuvenation at Sandscale Haws and North Walney NNR’s, to inform the Dynamic Dunescapes (DuneLIFE) project.**

You are invited by Natural England to submit a quotations for the requirement described in the specification below.

Please submit your quotations and return it by email to [richard.storton@naturalengland.org.uk](mailto:richard.storton@naturalengland.org.uk) on or before **17:00 on 17th October 2022**. The price quoted should be excluding VAT, should state the relevant VAT rate you will apply to your invoice (eg standard, outside scope, exempt, zero) and the separate VAT amount in £ GBP if appropriate. Please include the project name and reference numbers on the quotation (Dynamic Dunescapes (DuneLIFE) HG-16-08643; LIFE 17 NAT/UK/000570).

The decision to award the contract will be based on an evaluation of cost 50% and quality 50% where quality is scored between 1 and 10 based on the opinion of the evaluating officer using the scoring criteria from the table below.



The evaluating officer decision will be final.

Please note that the terms and conditions that will apply to this contract can be viewed on our internet page [www.gov.uk/government/organisations/natural-england/about/procurement](http://www.gov.uk/government/organisations/natural-england/about/procurement). See Natural England Purchase Order Terms and Conditions.

**Specification**

**Requirements for independent expert advice on the geomorphological feasibility of dune rejuvenation at Sandscale Haws and North Walney NNR’s, to inform the Dynamic Dunescapes (DuneLIFE) project (HG-16-08643; LIFE 17 NAT/UK/000570).**

**1. Background information**

The Dynamic Dunescapes project covers key sites in England and Wales across 9 sand dune ‘clusters’ (which cover 34 individual dune systems). The core project partners[[1]](#footnote-1) are working with local representatives and other organisations to secure funding to support dune habitat and species management, alongside a layered engagement programme including training, citizen science and volunteering for a range of audiences. The project aims to improve the condition of the project sites and, more widely, to increase the level of engagement with land managers, the public and others to help better understand and enjoy dune environments. This development phase is financially supported by LIFE, a financial instrument of the European Commission (see Appendix 1), and the Heritage Lottery Fund.

A key aim is to increase understanding about the role dune processes play in species and habitat conservation, and take steps to restore these where over-stabilisation and other factors have resulted in scrub-covered and poor quality dunes (See Appendix 2 for a summary of the project). As part of the proposed work, a range of practical interventions are being considered on different sand dune systems based on local needs. It has been demonstrated in Wales that well-designed geomorphological interventions to reverse over-stabilisation can benefit habitats and species and doesn’t compromise the dune system. The types of intervention (such as notching or sand scraping, expanding existing blow outs/open areas) need to be designed carefully to achieve most benefit and reflect each dune system. Intervention needs to work with the local conditions, at a scale that will be self-sustaining and provide one or more of the following:

* Benefits to vegetation types and species of open dune systems
* Reduced impacts of previous over-stabilisation measures
* Increased ‘sand rain’ into the wider dune field
* Enhanced successional processes thus countering effects of excessive nitrogen deposition/ reduced grazing.

**2. Scope of expert advice required**

**Report 1. Data analysis and feasibility study re: large scale remobilisation at Sandscale Haws and North Walney NNR’s** - Expert geomorphological advice is required to independently assess the feasibility of geomorphological interventions that will restore dynamic conditions. Development of a baseline understanding of the character and evolution of each site is required to supplement existing information held by NE specialists and local site managers to more clearly define the methods that might be used and expected outcomes at each site.

If geomorphological interventions are determined to be desirable and feasible, it will be necessary to work with national and local project partners to design specific location, scale and methodology. This should be undertaken in consideration of site specific requirements for target species and habitat creation and any potential sensitivities. The design will be used by the local site leads to seek any relevant consents before being implemented in the future. Any geomorphological interventions should be designed to secure the maximum chances of success of creating bare sand/mobile features, with a view to achieving long-term sustainability (with minimal further interventions required). Best practice approaches and lessons learnt should be considered where geomorphological interventions have taken place, for example on a number of sand dune systems in Wales.

The following factors can influence the design:

* + Availability and particle size range of sand in the area
  + Water table levels and sand moisture content
  + Degree of soil and vegetation development
  + Grazing pressure
  + Human visitor pressure

The advice developed under this contract also is essential to inform any necessary consents, provide information for partners and stakeholders and will form the basis of the monitoring before and after intervention.

To fulfil the scope of the advice required, the following tasks have been identified:

* Developing an understanding of the geomorphological character and evolution of the sand dune systems through assessment of available information. This will be supplemented by a site visit with local managers (typically 1 day) which will include collection of sediment samples from key parts of the dune.
* Where the initial site visit concludes that intervention is appropriate, determine the feasibility of geomorphological interventions to restore dynamic conditions at each sand dune system, to deliver project requirements at each site. For example to assess whether there is adequate sand in the appropriate size range from analysis of samples taken on site (or other data where available) and effective wind energy/direction after intervention to mobilise and maintain open conditions needed for biological interest[[2]](#footnote-2). Coverage of 30-40% pioneer dune and dune slack habitats, including 10-15% bare sand, can be regarded as the minimum required in a dynamic dune system capable of supporting a wide range of species and habitats (Pye & Blott, 2012).
* Design the scope of geomorphological interventions including recommendations for the appropriate location, scale and methodology/techniques in consultation with NE and local partners to include recommended scale (large scale, multiple or medium scale) and methods to achieve effective outcomes, including access restrictions for machinery and locations for placing any excavated material.
* Identify any risks or constraints associated with the work and design the approach to reduce these. The intervention must not compromise long-term dune geomorphological processes.
* Set out key requirements for monitoring objectives and methods using site-based information and other data resources, and covering pre-intervention baseline and post-intervention monitoring.
* Site report to cover all results of all above tasks with references used and figures to show locations and scale. To include a plain English non-technical summary for a wider audience.

The design will be developed using available information:

* Site-specific information and information from site leads;
* Site visit information and sediment samples;
* Available environmental and weather data;
* Published and unpublished literature;
* Air photography and LiDAR interpretation to develop an overview of dune topography and elevation;
* Laboratory analysis of sand samples collected during the site visit;
* Establish the extent/causes of stabilisation;
* Determine what is required to create and sustain dynamic conditions;
* Identify potential solutions to restore bare sand habitat and reverse over-stabilisation.

The successful contractor will liaise closely with local site managers to obtain relevant information both before and after the site visit. The study would largely use existing data for example SMP baseline studies (including where a dune front provides a natural element of Flood Risk Management), Geological Conservation Review, other site information (National Nature Reserve management plans etc.). Underlying geology, notes on formation and recent (50-70 year) changes if known. Including significant modifications (use of 1940s air photos).

Other data that would need to be considered to develop options for intervention, what scale these would take, and risks/contingency work:

* Known hydrology.
* Weather conditions/wind direction or inferred from current dune form.
* If system is eroding/prograding. Coastal processes/beach-dune interaction and supply of sand (limited or not) tidal factors.
* Sand/sediment particle size range and implications for wind speed thresholds needed to mobilise sand.
* Organic content of dune soils.
* LIDAR data to show topography

**3. Tasks:**

To fulfil the scope of the advice required, the following tasks have been identified:

* 1. Developing an understanding of the geomorphological character and evolution of the sand dune systems listed in section 1 through assessment of available information. This will be supplemented by a site visit with local managers (typically 1 day) which will include collection of sediment samples from key parts of the dune if this information is not already available.
  2. Where the initial site visit concludes that intervention is appropriate, determine the feasibility of geomorphological interventions to restore dynamic conditions at each sand dune system, to deliver project requirements at each site. For example to assess whether there is adequate sand in the appropriate size range from analysis of samples taken on site (or other data where available) and effective wind energy/direction after intervention to mobilise and maintain open conditions needed for biological interest[[3]](#footnote-3). Coverage of 30-40% pioneer dune and dune slack habitats, including 10-15% bare sand, can be regarded as the minimum required in a dynamic dune system capable of supporting a wide range of species and habitats (Pye & Blott, 2012).
  3. Design the scope of geomorphological interventions including recommendations for the appropriate location, scale and methodology/techniques in consultation with NRW, NE and local partners to include recommended scale (large scale, multiple or medium scale) and methods to achieve effective outcomes, including access restrictions for machinery and locations for placing any excavated material.
  4. Identify any risks or constraints associated with the work and design the approach to reduce these. The intervention must not compromise long-term dune geomorphological processes.
  5. Set out key requirements for monitoring objectives and methods using site-based information and other data resources, and covering pre-intervention baseline and post-intervention monitoring.
  6. An evaluation of how climate change will affect the dune systems based on current predictions and what would be needed, in terms of intervention, for continued adaption. And whether these adaption interventions are appropriate in the longterm.
  7. An evaluation of atmospheric nitrogen levels now and in the future and its affect on the dune systems.
  8. Site report to cover all results of all above tasks with references used and figures to show locations and scale. To include a plain English non-technical summary for a wider audience.

**4. Methods**

The design will be developed using available information:

* Site-specific information and information from site leads;
* Site visit information and sediment samples;
* Available environmental and weather data;
* Published and unpublished literature;
* Air photography and LiDAR interpretation to develop an overview of dune topography and elevation;
* Laboratory analysis of sand samples collected during the site visit;
* Establish the extent/causes of stabilisation;
* Determine what is required to create and sustain dynamic conditions;
* Identify potential solutions to restore bare sand habitat and reverse over-stabilisation.

**5. Data sources**

The successful contractor will liaise closely with local site managers to obtain relevant information both before and after the site visit. The study would largely use existing data for example SMP baseline studies (including where a dune front provides a natural element of Flood Risk Management), Geological Conservation Review, other site information (National Nature Reserve management plans etc.). Underlying geology, notes on formation and recent (50-70 year) changes if known. Including significant modifications (use of 1940s air photos).

Other data that would need to be considered to develop options for intervention, what scale these would take, and risks/contingency work:

* Known hydrology.
* Weather conditions/wind direction or inferred from current dune form.
* If system is eroding/prograding. Coastal processes/beach-dune interaction and supply of sand (limited or not) tidal factors.
* Sand/sediment particle size range and implications for wind speed thresholds needed to mobilise sand.
* Organic content of dune soils.
* LIDAR data to show topography

**6. Outputs**

The outputs need to be reported as follows:

* a **draft** report for comment.
* a **final** report in consideration of Dynamic Dunescapes Project staff, Natural England, National Trust and other organisation site lead comments. Please note that:
  + - The draft report should be provided in Word, and the final report in both word and pdf.

Contractors shall make no financial investment in the project and, therefore, shall not benefit from any intellectual property rights arising from the project.

**7. Experience required**

Successful contractors will be expected to have demonstrable experience of:

* Knowledge of UK coastal dune geomorphology (for example through research, surveys and other studies) and specific knowledge of the five locations covered in the work
* Knowledge of how dunes contribute to coastal risk management and how Shoreline Management Plans identify dunes as an asset
* Field-based knowledge of sand dune ecology and management as related to dune geomorphology processes
* Proven track record within the UK in developing the type of advice required for this contract
* Good communication and organisational skills for planning and attending site visits
* Facilities, or access to them, for analysing sediment samples from sites and interpret the results
* Good writing, presentation and communication skills for a wide and non-technical audience
* Evaluation and analysis of data sets and reports, including interpretation of mapped information
* Knowledge of how to access available Open Data such as EA datasets and archive material and facilities for its analysis
* Ability to find, interpret and summarise scientific literature using plain English
* Excellent understanding of the role of statutory and non-statutory organisations that manage dunes

Key staff to work on this contract must be detailed in the quotation with experience in the above clearly identified.

**8. Project management and timescale**

Please note that other than the submission of the final report, timescales are indicative and could be amended slightly in discussion with the contract manager at the start up meeting.

* A start up meeting should be held in the week after the contract is awarded, it is estimated that this would be **w/c 24th October 2022**. Please assume 2 hours for the meeting. It is assumed that this meeting will be by Teams so T&S costs will not be payable.
* Draft report to be submitted by **1st February 2023**
* Natural England and Partners written comments to be provided by **20th February 2023**.
* **Final report to be submitted by 1st March 2023.**

**Appendix 1**

The Dynamic Dunescapes DuneLIFE project (LIFE 17 NAT/UK/000570) is a five year project running from September 2018. Declines in the extent and quality of sand dunes, often due to over-stabilisation, have reached a critical point. The latest Article 17 UK report states all seven sand dune habitats and H3110 freshwater feature are in an overall bad conservation status. DuneLIFE will improve the SAC’s condition by tackling the root causes of decline such as over-stabilisation, encroachment of invasive species and nutrient enrichment. It will implement best practice techniques in ways which are sustainable and promote their replication and transfer. The LIFE project is led by Natural England working in partnership with the National Trust, Plantlife and three Wildlife Trusts. The project is financially supported by LIFE, a financial instrument of the European Commission.

**Supplying Goods and Services to Natural England (DUNS number)**

The UK Government has an aspiration to achieve a minimum of 25% of government spend with ‘Small and Medium sized Enterprises’ (SME). More information is available here - <https://www.gov.uk/government/publications/making-government-business-more-accessible-to-smes-2-years-on>.

Natural England welcomes this initiative and is working towards this goal. To enable us to do so we need to capture details on all our suppliers to accurately identify those that are classified as SMEs. This classification is being carried out via the Dun and Bradstreet (D&B) number against our suppliers. A D&B DUNS Number is a unique nine-digit sequence recognised as the universal standard for identifying and keeping track of businesses worldwide.

It is a requirement that all our new and existing suppliers supply or obtain a DUNS Number. This would also assist other Government departments for whom DUNS registration is a mandatory requirement.

To search for your unique number you can use this link - [www.dnb.co.uk/myduns](http://www.dnb.co.uk/myduns).

Alternatively, if you have not already registered please use the following link or telephone number to register:

- <http://www.dnb.co.uk/dandb-duns-number/request-a-duns-number>

- D&B customer service team on 0870 243 2344 and choose option 2 to request a DUNS Number

**Supplier Undertaking**

Please indicate yes or no to confirm if the statements on the next page are true/false and return it to the email address above together with your quotation.

Yours sincerely

**Richard Storton**

**Cumbria Project Officer – Dynamic Dunescapes**

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**RE: Requirement for independent expert advice on the geomorphological feasibility of dune rejuvenation at selected sites, to inform the Dynamic Dunescapes (DuneLIFE) project.**

**Ref Number:** HG-16-08643 LIFE 17 NAT/UK/000570

1. I confirm my organisation has a Health & Safety policy that my staff understand and adhere to

**Answer Y/N**

1. I confirm I will provide necessary risk assessments before undertaking the work detailed in the specification as appropriate

**Answer Y/N**

1. If site work is required in order to deliver the services, I confirm I will take necessary bio security precautions in undertaking the work detailed in the specification, as appropriate, to minimise the transfer of invasive non-native species, pests and diseases between and within sites.

**Answer Y/N**

1. I confirm my organisation has an environmental policy and/or is actively pursuing sustainability within its operations

**Answer Y/N**

1. I confirm that the work will be completed within the required timescale

**Answer Y/N**

1. Statement relating to good standing:-
2. We confirm that, to the best of our knowledge, our organisation is not in breach of the provisions of Regulation 23 of the Public Contracts Regulations 2006 (as amended) and in particular that the organisation or its directors or any other person who has powers of representation, decision or control of the named organisation has not been convicted of any of the following offences, conspiracy, corruption, bribery; fraud, money laundering or any other offence within the meaning of Article 45(1) of Directive 2004/18/EC as defined by the national law of any relevant State.

**Answer: Y/N**

1. We confirm that our organisation:
2. being an individual is not bankrupt or has not had a receiving order or administration order or bankruptcy restrictions order made against him or being a company or any other entity within the meaning of section 255 of the Enterprise Act 2002 has not passed a resolution or is not the subject of an order by the court for the company’s winding up otherwise than for the purpose of bona fide reconstruction or amalgamation, nor had a receiver, manager or administrator on behalf of a creditor appointed in respect of the company’s business or any part thereof or is not the subject of similar procedures under the law of any other state;
3. has not been convicted of a criminal offence relating to the conduct of his business or profession;
4. has not committed an act of grave misconduct in the course of his business or profession;
5. has fulfilled obligations relating to the payment of social security contributions under the law of any relevant State in which the organisation is established;
6. has fulfilled obligations relating to the payment of taxes under the law of the relevant State in which the economic operator is established;
7. is not guilty of serious misrepresentation in providing any information required of him under this regulation;

**Answer: Y/N**

**Signed:**

**Name:**

**Position:**

**Company name:**

**Date:**

1. Natural England (NE), Natural Resources Wales (NRW), Plantlife, National Trust and the Wildlife Trusts in England and Wales. [↑](#footnote-ref-1)
2. For example see <http://jncc.defra.gov.uk/pdf/CSM_coastal_sand_dune.pdf> and <http://publications.naturalengland.org.uk/publication/30025?category=7005> [↑](#footnote-ref-2)
3. For example see <http://jncc.defra.gov.uk/pdf/CSM_coastal_sand_dune.pdf> and <http://publications.naturalengland.org.uk/publication/30025?category=7005> [↑](#footnote-ref-3)