

Broads Authority

20 January 2023

Agenda item number 12

Broads Peat project update

Report by Environment Policy Adviser

Purpose

Updating Members on the progress of the Broads Peat project which is funded through the Peatland Discovery Grant.

Broads Plan context

A3 Agree carbon reduction targets for the Broads National Park and promote action to reduce emissions

B2 Promote best practice water capture and usage across the Broadland Rivers Catchment and reduce point and diffuse pollution into the floodplain and water courses

B3 Seek biodiversity net gain and nature-based solutions and enhance areas of fen, reed bed, grazing marsh, and wet woodland, to protect peatlands as carbon sinks

B5 Improve partnership coordination and communication of Broads biodiversity monitoring and research effort

D1 Protect and enhance local built and cultural features, archaeology, geodiversity and potential hidden heritage, including 'at risk' assets

F3 Provide and expand schools-based and outreach environmental education opportunities for young people, using the Broads as a learning resource

Recommended decisions

- i. Note the update and;
 - ii. approve two waivers of Standing Orders relating to contracts, to commission additional environmental surveys and to update a report (see section 8).
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1. Project Aims

- 1.1. The Broads Peat partners have been working together since December 2021 to explore the opportunities for peatland restoration in the Broads, including investigating which private funding opportunities are available. The Peat project is at the Discovery phase.
- 1.2. The project aims to build capacity and capability in the Broads helping farmers and land managers overcome barriers to peatland restoration, and provide the necessary evidence, both environmental and commercial information, to enable them to bid for further funding as part of the Restoration phase.

2. Project Context

- 2.1. The Broads Peat Project was awarded £785,668 in December 2021 from Defra, as part of the Nature for Climate Peatland Grants Scheme – Discovery Grant which is administered by Natural England. The project budget has been revised to £855,831 in December 2022 (the formal Change Control Notice was received from Natural England on 3 January). The project will be running until March 2023.
- 2.2. The partnership comprises the Broads Authority (lead partner), Natural England, the National Trust, Norfolk FWAG (Farming & Wildlife Advisory Group for Norfolk), RSPB, Norfolk Wildlife Trust, Suffolk Wildlife Trust, Palladium, and different landowners. The project is also supported by the Environment Agency, the Broads IDB and the NFU.
- 2.3. The partnership is testing the feasibility of generating private revenue through the sale of ecosystem services, including carbon credits gained by restoring peatland. This is to create new income streams for farmers and landowners seeking to reduce their emissions, improve the quality of their land and support biodiversity.

3. Project Outputs

- 3.1 The project outputs are:
 - Baseline surveys, including peat presence and depth and water needs, for 15 sites within the project portfolio.

- Detailed restoration plans for selected sites (those prioritised amongst the 15 initial sites – see Appendix 1), including the necessary permissions.
- Commercial models with the expected environmental outcomes the delivery and maintenance costs, and the sources of public and private funding.
- Practical next steps for delivery.

4. Carbon Finance Model

- 4.1. As part of the Revere initiative, Palladium has been leading on the commercial modelling of peatland restoration in collaboration with all National Parks. In the Broads, Palladium’s role has focused on gaining clarity on the opportunities and processes associated with the [UK Peatland Code](#) and carbon finance markets.
- 4.2. An important component of the Broads Peat Project is to raise awareness about Broads peatlands and carbon finance amongst farmers and landowners. Three landowner engagement workshops have taken place in 2022:
 - Introduction to the project and presentation of the UK Peatland Code
 - UK carbon markets and project development
 - Individual personalised feedback to all interested stakeholders on their specific situations
- 4.3. In parallel, Palladium and Broads Authority engaged with International Union for Conservation of Nature (IUCN) with feedback on the UK Peatland Code, specifically looking to improve the Code for lowland peat and fen habitat. The latest update of the Peatland Code is awaited.
- 4.4. Palladium have worked with legal counsel to develop a set of contractual templates that could be used to govern both the restoration and maintenance of peatland sites, as well as and the sale of the resulting carbon credits.
- 4.5. A bespoke commercial assessment for each priority site has been developed which includes:
 - Eligibility assessment of the site to the current UK Peatland Code
 - Costs for the restoration and long-term maintenance phase (up to 30 years)
 - Estimated revenues from sale of ecosystem services and relevant public grants
 - Calculation of upfront capital investment required (if applicable)
 - Returns for landowners and land managers over time

5. Contractor surveys and assessments

- 5.1. Exo Environmental (Exo), Heather Wallis (HW) and SWT Trading are appointed for baseline surveying and monitoring including: peat presence, depth surveys, water needs, vegetation, land levels, historic environment, water voles. They produced significant data sets to inform the Restoration Plans.
- 5.2. In order to determine baseline populations of water vole at each project site, SWT Trading (overseeing a consortium of water vole experts), used a new approach to assess water vole presence/absence and to estimate population size. The method was based on habitat quality as a predictor of likely water vole presence, rather than the use of continuous transects, which was the only approved approach by Natural England. This new approach works for large sites in the Broads where continuous surveys for water vole would not be feasible due to cost or time constraints. Thanks to the findings from the Peat project, it has been demonstrated that this methodology can be used to predict water vole presence and density, and also provides satisfactory baseline data against which post impact outcomes can be measured. The approach can be used for future projects in the Broads.
- 5.3. The construction works outlined in the Restoration Plans are designed in detail and costed by a consultant Stantec. Stantec are appointed through the SCAPE Framework that the Broads Authority entered following the January 2022 Broads Authority decision to use a procurement framework for some elements of the Peat project.
- 5.4. Stantec are developing the plans in conjunction with the data collected by the other contractors (Exo, SWT and HW). Multi-agency liaison is taking place to develop applications for licences. However, this is unexpectedly complex regarding licences and permissions, for flood risk and water transfer for example, and also Environment Agency resource constraints. It is anticipated that the complexity of issues will delay the submission of final Restoration Plans to beyond the end of March 2023. This issue is a key risk developed at section 7.
- 5.5. Another assessment was carried out by Cranfield University looking at peat wastage. Their peat assessment has improved the accuracy of estimates of past peat wastage (drying out and greenhouse gas emissions) and is making projections of future wastage. They installed rust rods to monitor peat wastage and estimate carbon dioxide and methane emissions using measurements of mean annual water table depth in peat deposits. The draft report is complete. This report has, for the first time, provided a high-resolution spatial assessment of estimated greenhouse gas emissions from Peat in the Broads, that takes account of land cover, water table depth and weather. The report notes that:
 - Peat in the Broads emit significant carbon in the form of CO₂ and CH₄ (methane), from both drained and semi-natural areas (mostly CH₄)

- The greatest potential climate forcing¹ benefits from land management and drainage change would be afforded in the improved grassland (and arable) fields in the lower Yare, middle Waveney and Upper Thurne.

6. Landowner and Youth Engagement

- 6.1. Along with the carbon finance workshops (see Section 4), three site walks, jointly led by Norfolk Farming and Wildlife Advisory Group and the Broads Authority, took place in September, October and November 2022. These created constructive discussion on land management for carbon, water and nature benefit and were of great interest to those who attended. An average of 20 farmers and landowners attended each walk.
- 6.2. The Broads Authority Engagement Officer is hosting school days and 'Paludi-What' engagement events, for example with the Norwich University of Arts architects and design students, which could be the beginning of a new collaboration around bio-based construction materials.

7. Risk Management

- 7.1. The Project Risk Register is reported and updated at the internal Project Board (every two weeks) and endorsed by the Peat Partnership Project Steering Group (every quarter). There are two key risks outstanding, as follows.
- 7.2. The delay by the International Union for Conservation of Nature (IUCN) to update the Peatland Code is a problem. It was due in the summer 2022, but has not been published yet. The updated version will include emissions factors, condition categories and eligibility criteria for fen habitats. As it is not published yet, it means that the carbon credit calculations are based on early indication emission factors and the calculations may need to be fine-tuned following the publication of the revised Peatland Code.
- 7.3. The Environment Agency has resource constraints for working on flood risk and water resource permissions. This is likely to result in delays to the permissions.
- 7.4. Following discussion with Natural England, and bearing in mind other Nature for Climate projects are dealing with similar issues, it will be possible to apply for an extension to the Discovery Project. The project team is working on the submission document for an extension possibly until August 2023. Members will be updated through the strategic priorities update reports.

8. Procurement for additional works

- 8.1. Additional environmental surveys are required in order to comply with the emerging requirements of the Peatland Code, and to further assess water management

¹ Climate forcing measures the imbalance in the Earth's energy budget caused by a disturbance of the climate system, for example changes in atmospheric composition driven by human activities.

requirements and also apply for permissions. The fee quotations for the work is £52,000. It includes:

- Additional peat coring works to meet the requirements of the proposed peatland code. It is anticipated that the required transects of the peat coring requires more frequent centres at 100m x100m.
- Additional Vegetation Surveys at one of the sites (Heckingham Marshes) due to the extent of the site being larger than originally anticipated.
- Further works required to develop the Restoration Plan at one of the sites.
- Additional hydrological and topographical / levelling works across all sites.

8.2. The works will be fully funded by additional funding from Natural England. We have received confirmation of the additional funding from Natural England (see section 2.1).

8.3. A consortium led by Exo-Environmental is already working on the peat project, and is willing to accept the additional works, and they have provided the fee estimates. The Broads Authority also requested fee quotations from three other specialists, but the contractual terms of the consortium preclude two organisations from pricing or working in competition to each other on this particular project. The third organisation emailed the Broads Authority on 19 December 2022 stating that they were unable to provide a quotation for this work.

8.4. The individuals involved in the consortium have specialist knowledge of the sites and understand access, conditions, and other potential constraints about the sites. By taking advantage of this existing knowledge, it is in the interests of the peat project to continue with the same team and provide best value for money.

8.5. In addition to the above surveys, Cranfield University will need to update their report using updated/new data. The team at Cranfield has estimated that the update will incur a cost of £2,800.

8.6. The Broads Authority Standing Orders for contracts state that the Chief Executive cannot approve waivers for extensions to existing contracts if the variation is more than 10% of the original contract sum.

8.7. It is the case for Exo Environmental that the additional work represents more than 10% of the initial contract value, which was £178,362. Hence, the waiver for the £52,000 requires Broads Authority approval. Similarly, it is the case for Cranfield University that the additional work represents more than 10% of the initial contract value, which was £17,835. Hence, the waiver for the £2,800 requires Board approval.

9. Financial implications

9.1. The additional costs of £54,800 will be fully covered by the grant from Natural England.

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Background papers: [Broads Authority 28 January 2022 Agenda item number 8](#)

[Broads Plan](#) strategic objectives: A3, B2, B3, B5, D1, F3

Appendix 1 – Broads Peat Discovery Sites

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