Project 2: Specification Greenlands Mire Restoration

Dorset Peat Partnership
As part of the Dorset Peat Partnership project the National Trust is undertaking the restoration of two sites to restore natural dynamic processes at Agglestone Mire, and Greenlands Mire, near Studland. The tender document requests quotes for both of these sites.

Greenlands Mire
The Dorset Peat Partnership has identified the catchment draining to Greenlands Farm as a site for restoration of natural processes. It has been identified that the watercourse within the catchment area has, in places, been disconnected from the adjacent floodplain area through a combination of historic drainage, incision and entrenchment. The dominance of a single channel flow has reduced floodplain connectivity and associated water table. This has disrupted the natural hydrological system of the wet heath and mire habitat as well as an area of wet woodland, making the site much drier and less capable of forming peat, and extremely vulnerable to the impacts of climate change.

The restoration aims of this project are to:

- Restore hydrological function in the mire by raising the water table and diverting flow away from the gullies into the main body of the mire.
- Spread out the flow of water and prevent it from re-entering the channel downstream in the mire and woodland.

The objectives are to:

- Install new heather bale dams to block channels and divert the flow of water into a multiple braided series of smaller channels.
- Install additional bales to existing heather dams.
- Where channels are more incised and have higher flow rates; block channels with piling and timber (log and plank) dams.
- Downstream in the most deeply incised wooded section redirect water across the flood plain with timber dams and roughening features (using on-site logs).

This request is for the supply and installation of various types of dams as per the specification and plan overleaf. The heather bales will be supplied by the NT by the end of November, and the contractor will need to supply other materials.

Conditions

- It is important that disturbance to the surface must be kept to the minimum. The underlying peat must not be damaged and impacts to sensitive habitats must be kept to a minimum. Appropriate low ground pressure machinery and bog mats will be required to safeguard the habitat from the impacts of tracking and ground disturbance during the period of operation.
- The work can commence once the contract has been awarded from the 6th November 2023 and must be completed before the end of March 2023 depending on ground conditions and the equipment available.
- The work is not to be sub contracted.
- Construction line accreditation is required [Legal requirements for building contractors | National Trust].
- CDM will apply to this project.

Quotation
Please quote for each project separately for Project 1: Agglestone Mire, and Project 2: Greenlands Mire. The awarded contract will be for both pieces of work.

Project 2: Greenlands Mire (excl Vat)
Please layout your quote as follows:

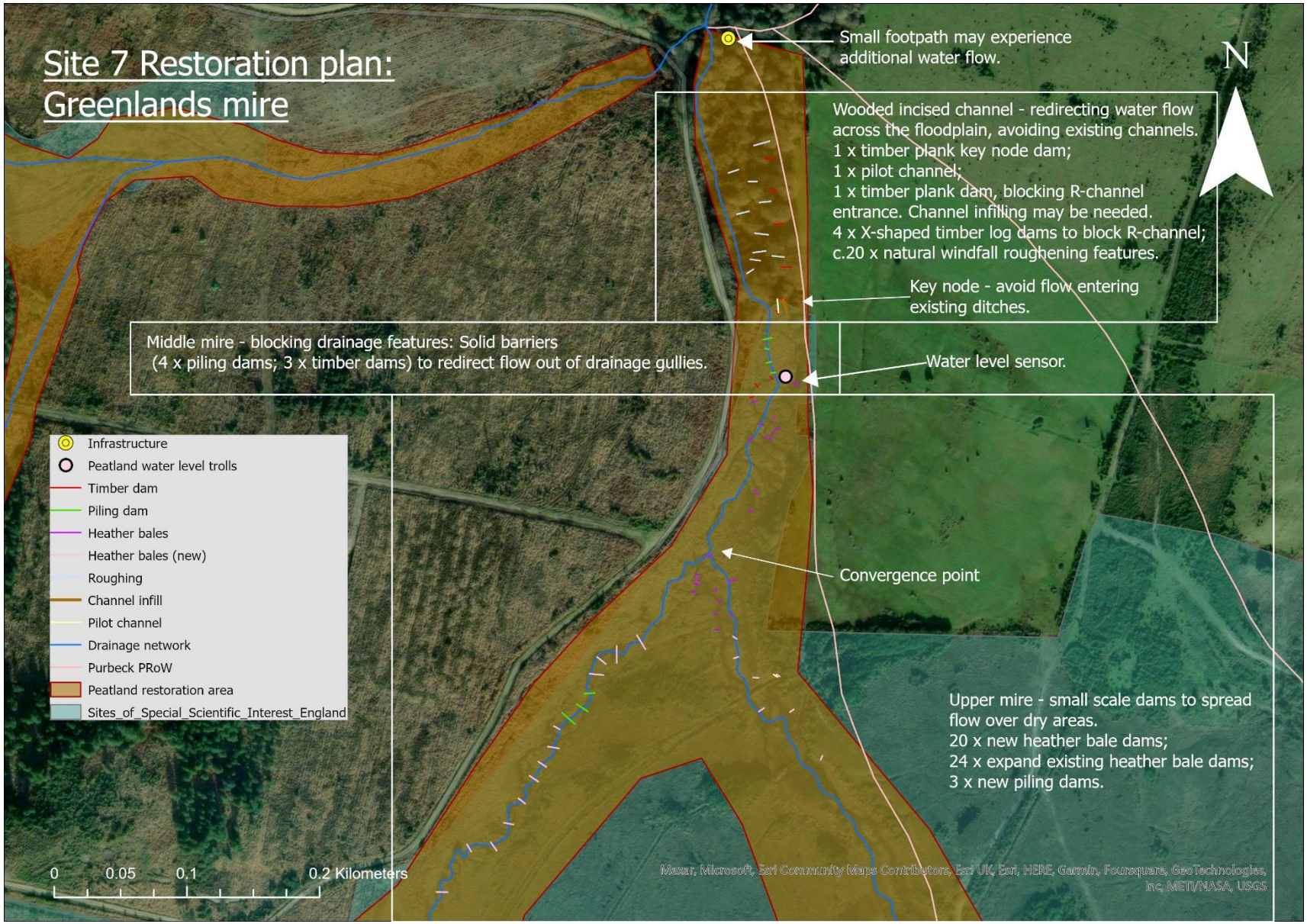
1. Mobilisation, welfare, accommodation etc
2. Supply of materials (see table overleaf)
   - Section 1 - itemised
   - Section 2 - itemised
   - Section 3 – itemised
   - Total materials cost
3. Labour
4. Hourly rate (for delays or any extra time incurred)
5. Daily rate (for delays or any extra time incurred)
6. Contingency

Suppliers proposal
In addition to supplying the details requested in the RFQ1 tender, section 7 please complete the information below:

Q	Type of equipment and machinery available for carrying out the installation of various types of dams at Greenlands.
A	

Attached documents to NT RTP1:

1. Project 1: Agglestone Mire Restoration Plan
2. Project 2: Greenlands Mire Restoration Plan
3. Project 1: Specification Aggletone Mire
4. Project 2: Specification Greenlands Mire
5. Exchange of information – Greenlands Mire
6. Exchange of information – Agglestone Mire
7. Location, access and emergency maps
8. Environmental site rules for contractors


Site 7 Restoration plan:
Greenlands mire
Small footpath may experience additional water flow.
N
Wooded incised channel - redirecting water flow across the floodplain, avoiding existing channels.
1 x timber plank key node dam;
1 x pilot channel;
1 x timber plank dam, blocking R-channel entrance. Channel infilling may be needed.
4 x X-shaped timber log dams to block R-channel;
c.20 x natural windfall roughening features.
Key node - avoid flow entering existing ditches.
Middle mire - blocking drainage features: Solid barriers
(4 x piling dams; 3 x timber dams) to redirect flow out of drainage gullies.
Water level sensor.
Infrastructure
Peatland water level trolls
Timber dam
Piling dam
Heather bales
Heather bales (new)
Roughing
Channel infill
Pilot channel
Drainage network
Purbeck PRoW
Peatland restoration area
Sites_of_Special_Scientific_Interest_England
Convergence point
Upper mire - small scale dams to spread flow over dry areas.
20 x new heather bale dams;
24 x expand existing heather bale dams;
3 x new piling dams.
0
0.05
0.1
0.2 Kilometers
Maxar, Microsoft, Esri Community Maps Contributors, Esri UK, Esri, HERE, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS

Section	Installation – see restoration plan for methodology	Grid reference
1. Upper mire – small scale dams to spread flow over dry areas	3x plastic piling dams (c.1m wide, depth c.2m) 20 x heather bale dams (c.160 bales, 80 chestnut stakes) 24 x expand existing heather bale dams (c.90 bales, 50 chestnut stakes)	**1-3:** Between SZ 01435 83699 to SZ 01420 83676 **4-23:** Between SZ 01317 83550 to SZ 01501 83766; and SZ 01539 83742 to SZ 01620 83616. **24-46:** Between SZ 01586 83933 and SZ 01527 83747
2. Middle mire – blocking drainage features	4 x metal piling dams – c.6m wide x 2m (1m above surface + up to 1m below surface) 3 x timber (stacked log) dams c.3m wide x depth 1.5m	**47.** SZ 01565 83966 **48.** SZ 01565 83959 **49.** SZ 01566 83948 **50.** SZ 01570 83941 **51.** SZ 01568 83937 **52.** SZ 01557 83931 **53.** SZ 01553 83922
3. Wooded incised channel – redirecting water flow across the floodplain, avoiding existing channels	Key node blocking and pilot channel: 1 x main key node waterfall (timber board) dam - c.3m x c.1.5m 1 x timber board dam - c.3m x c.2m (potentially with additional channel infilling) - to block the right channel entrance. 1 x major pilot channel – to push water on to the floodplain (as pictured). 4 x timber (X-shaped log) dams – c.3m wide x depth 1m. c. 20 x natural roughening features i.e. Logs placed on the valley floor to buffer flow, using on site windfall materials.	**54.** SZ 01572 83987 **55.** SZ 01577 83996 **56.** SZ 01573 83993 **57.** SZ 01565 84102 **58.** SZ 01570 84078 **59.** SZ 01576 84053 **60.** SZ 01579 84020 **61-80:** Between SZ 01559 84014 and SZ 01559 84014.

Additional information

** Grid Reference Finder – see points listed mapped here.

- Measurements are estimated. The chosen contractor will need to check measurements on site.
- NT will supply all heather bales by end of November.
- Contractor to supply all other materials.