

# ***Exmoor : A Case Study, peatland restoration and the historic environment***



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# Exmoor Mires Partnership

Main Objective: Eco-hydrological restoration of Exmoor's peatland for multiple ecosystem service benefits (catchy!)

## Historic environment Objective :

*Protection and enhancement: better knowledge of the historic environment and better preservation of palaeo-environmental deposits.*

1. Mitigation.
2. Case studies.

Historic Environment Officer – oversees delivery of this work.

Enclosures north of Driver, and the Chains, © Historic England



## Exmoor's Cultural Heritage:

- International, national and local importance.
- Extensive prehistoric landscapes and monument complexes which are very rare on a national level
- Exmoor's peatlands and moorlands contain evidence of reclamation in the medieval and post-medieval periods,
- Remarkable industrial complexes and military training landscapes of the 20th century.
- Extensive peat deposits which, due to the remains of flora and fauna preserved within them, constitute important archives of the past environment and human interaction stretching back 10,000 years into the Mesolithic period.



Exmoor, Spooners: Mining and ditches © Historic England





**Peatland Restoration Techniques**

**Peat Blocks**



**Wooden Blocks**



**Willow Blocks**





# Opportunities

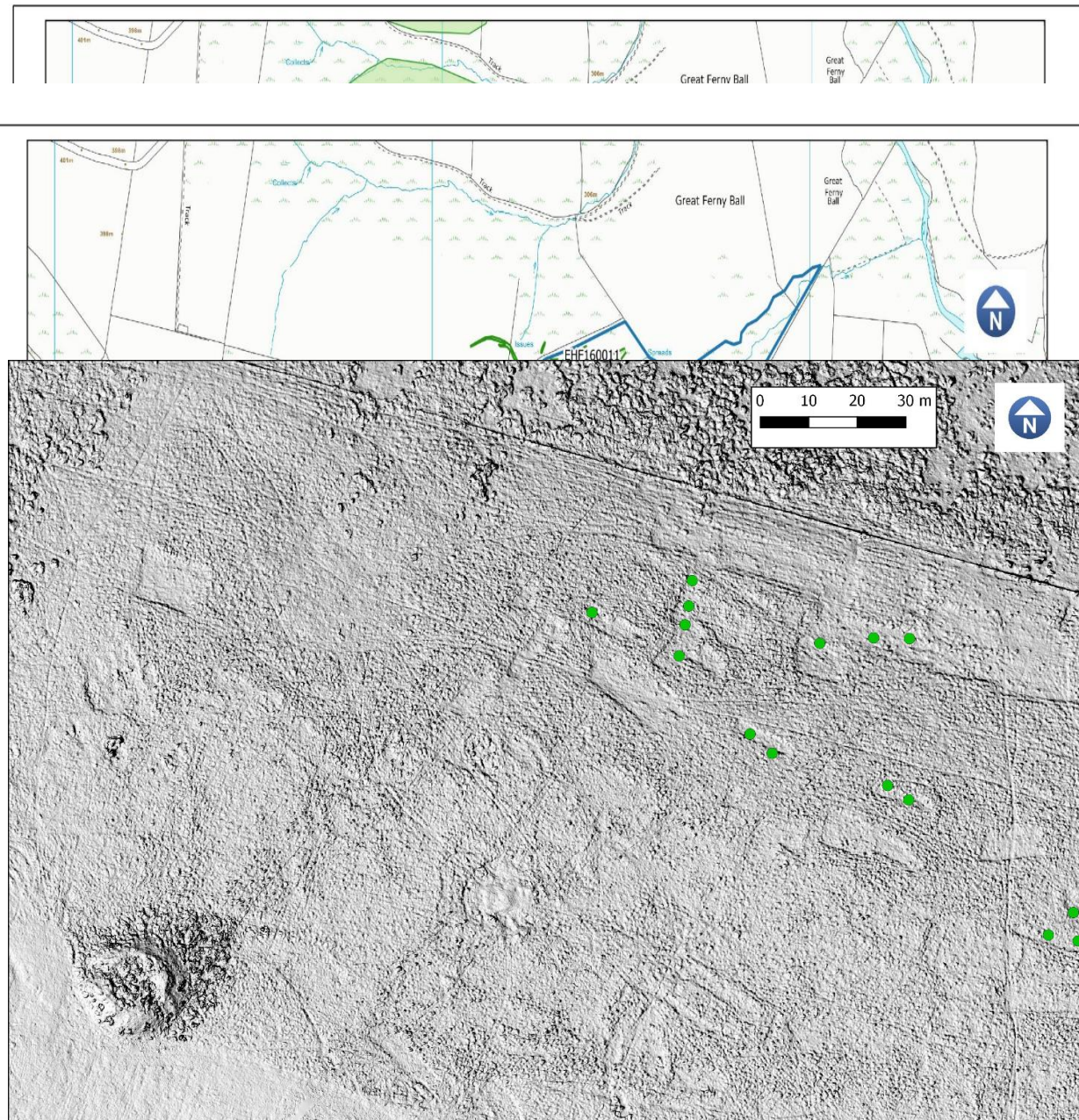
## Mitigation

- Desk-top assessment via the **Historic Environment Record**
- **Walk over survey** commissioned

Known archaeology at start of 2016 10 sites/features in Historic Environment Record

24 additional features recorded which included a Bronze-Age cairn and medieval hollow ways

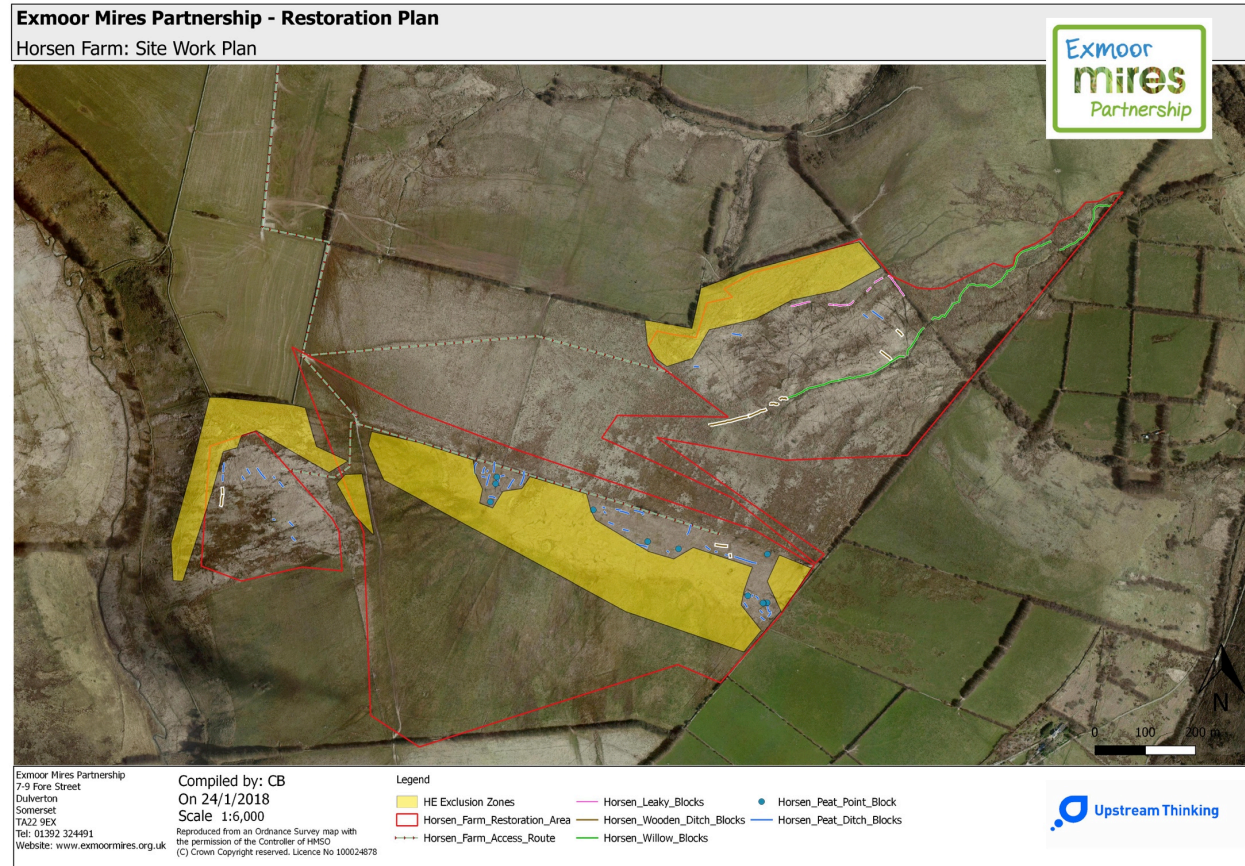
- **Drone survey** commissioned and **LiDAR analysis** of the peat cutting area
- **Scheduled Monument Consents** obtained





# Opportunities : Plans

- Understanding of when drainage and peat cutting works may have taken place.
- Provides us with a detailed record of peat cutting features.
- Provides us with **exclusion areas** where work cannot take place or vehicles cannot track across
- When the restoration works happen the location and type of every single blocks (dam) installed is recorded – modern day archaeology
- Mire restoration stops the erosion of archaeological features





# Opportunities: Enhanced knowledge of Exmoor's cultural landscape

Walkover survey alone has so far identified over 300 previously unrecognised archaeological features and sites – including:



Cairn on Deer  
Park

(c. 2000 –  
1500 BC)

Standing stone  
on Deer Park

(c. 2500 – 2000  
BC)



Spooners

Hammer stone from  
(c. 10,000 – 4000BC)

19<sup>th</sup> century prospecting  
works on Spooners



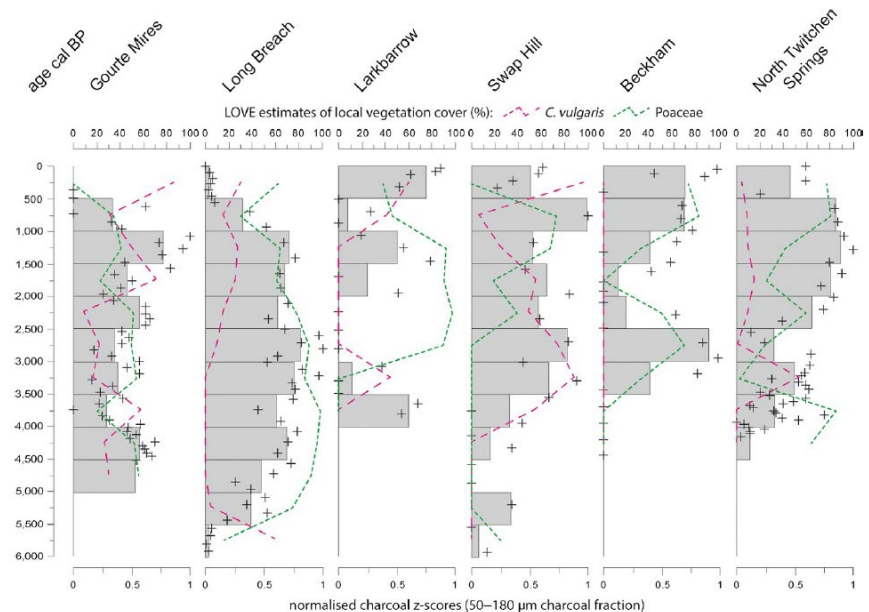


# Opportunities: Case Study Work

By using techniques such as carbon dating, paleo-environmental research, tephra-chronology to analyse the peat and under lying soils we have been able to:

- Better understand past climatic change
- Understand and date the development of peat.
- Illustrate changes in habitats over long periods of time (including reconstruction of burning and grazing regimes) enabling us to better understand the habitats that are present today.

Overall it improves our knowledge of the historic environment and with successful rewetting of the peats via mire restoration we are preserving the palaeo-environmental deposits for future generations





# Challenges: Larkbarrow

- Principal Archaeological Landscape v SSSI  
local non-statutory designation v national statutory designation
- 5yrs of surveying, researching, consulting
- £30k alone into surveys
- Restrictions placed on restorations methods would not have achieved eco-hydrological restoration – pulled out of doing the works

Larkbarrow Corner and Swap Hill © Historic England

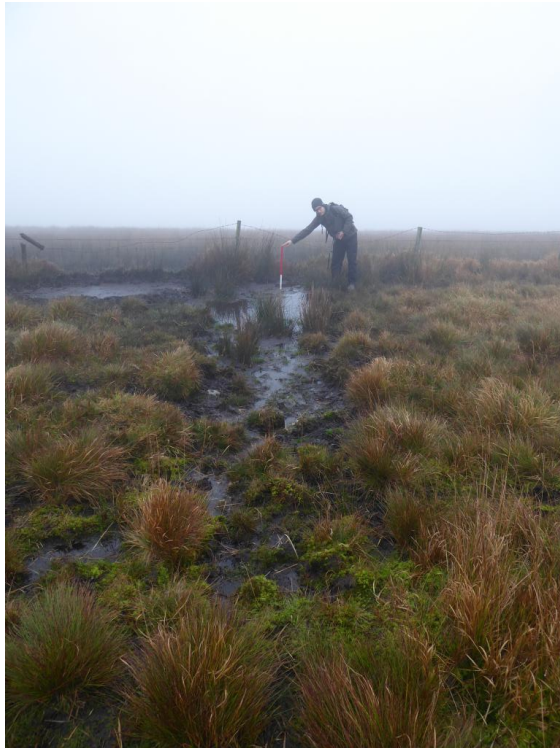


## Challenges: Peat Cuttings

Eroding peat

Eroding historic environment features

How to stop erosion of peat whilst preserving historic environment feature



Peat cutting: Brendon Common – late 1990s



Peat cutting: Brendon Common July 2019





What restoration techniques are acceptable?

Single block in cutting exit

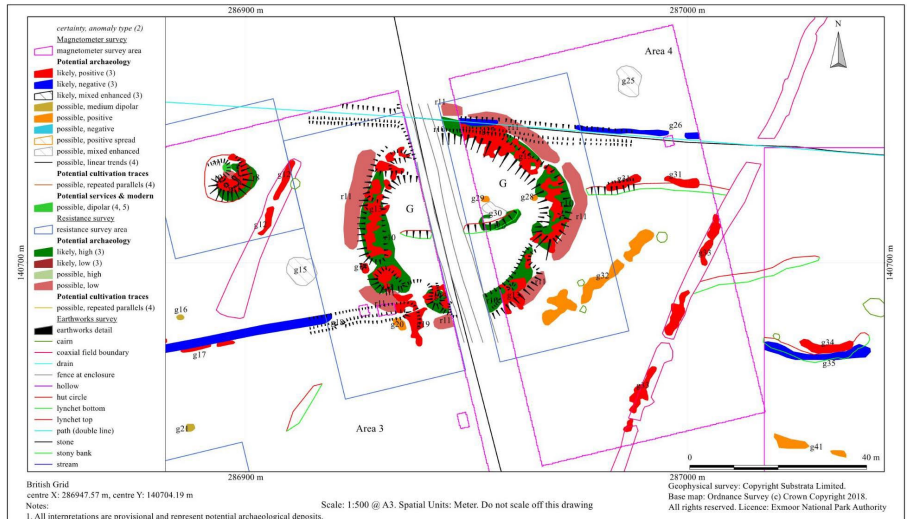
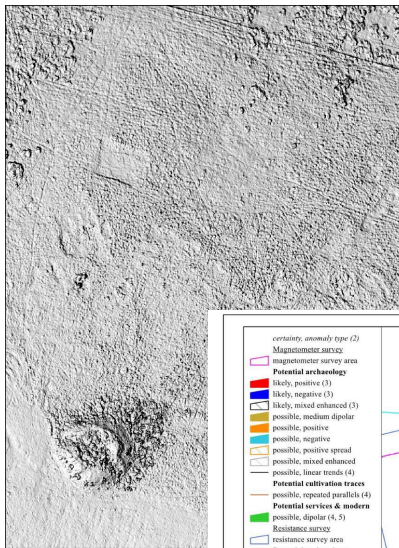


Multiple blocks to  
create cells



# Questions

- Levels and standard approaches to recording, surveying and monitoring.
- Who decides?



1946 RAF Aerial Photograph