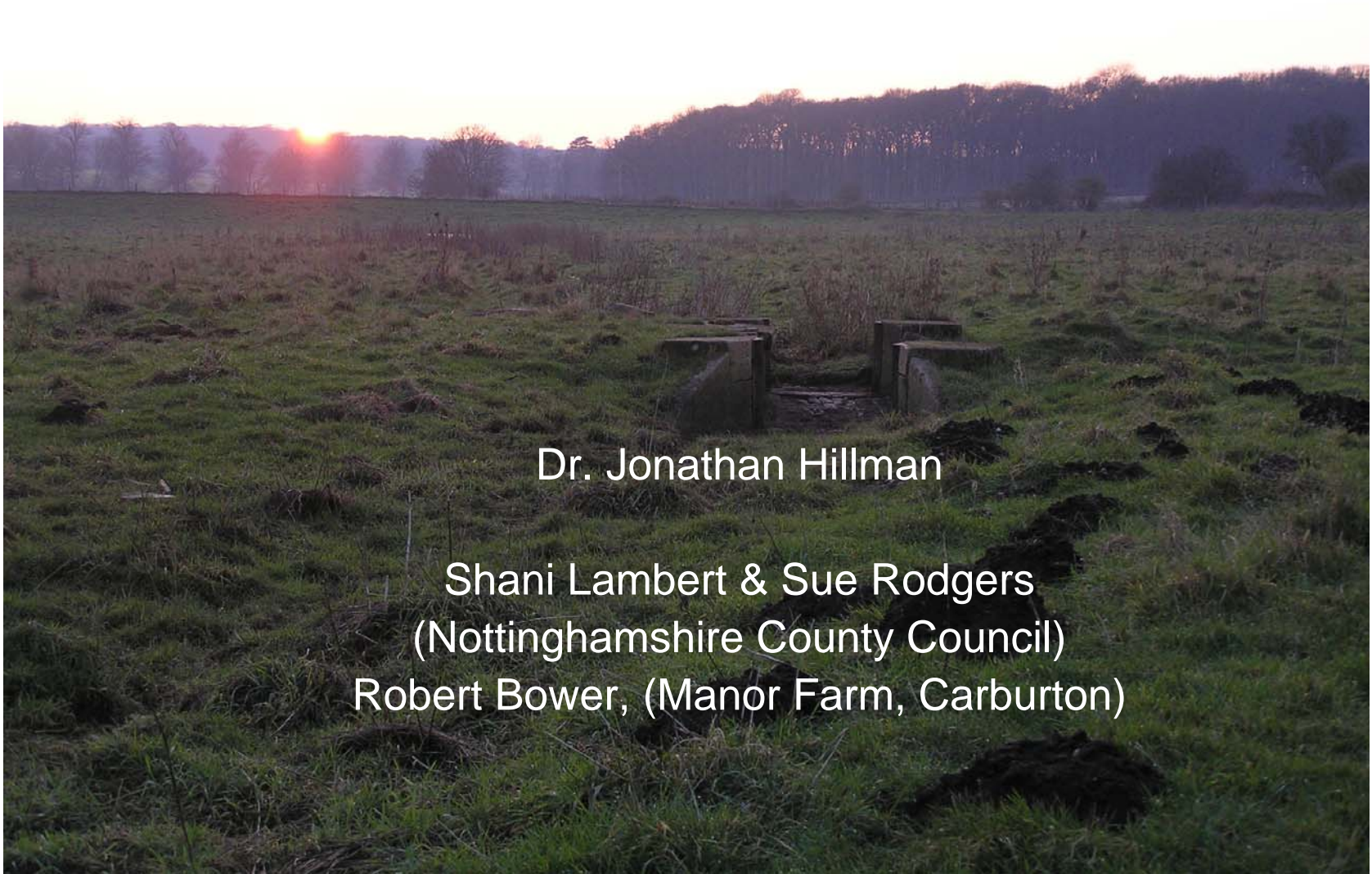


Nottinghamshire Water Meadows in the Landscape



Dr. Jonathan Hillman

Shani Lambert & Sue Rodgers
(Nottinghamshire County Council)
Robert Bower, (Manor Farm, Carburton)

Presentation structure

1. Background & history.
 - What are water meadows?
 - Where are they found?
 - Forms of water meadow
2. Nottinghamshire water meadows
3. Recognition & recording, preservation or restoration?
Site example at Carburton
4. The future

What is a water meadow?

- An area of grassland in which the quantity and quality of grass is increased through artificial irrigation
- Main aim to prolong, or bring forward grass growth by raising soil temperature above 5°C for a few days at a time, regularly through winter
- Water is kept flowing, not stationary
- Secondary benefits of nutrients & sediment (sometimes dirty water)



Britford Water Meadows, Wilts
(English Heritage)

Forms of water meadow

1. Bedwork
2. Catchwork

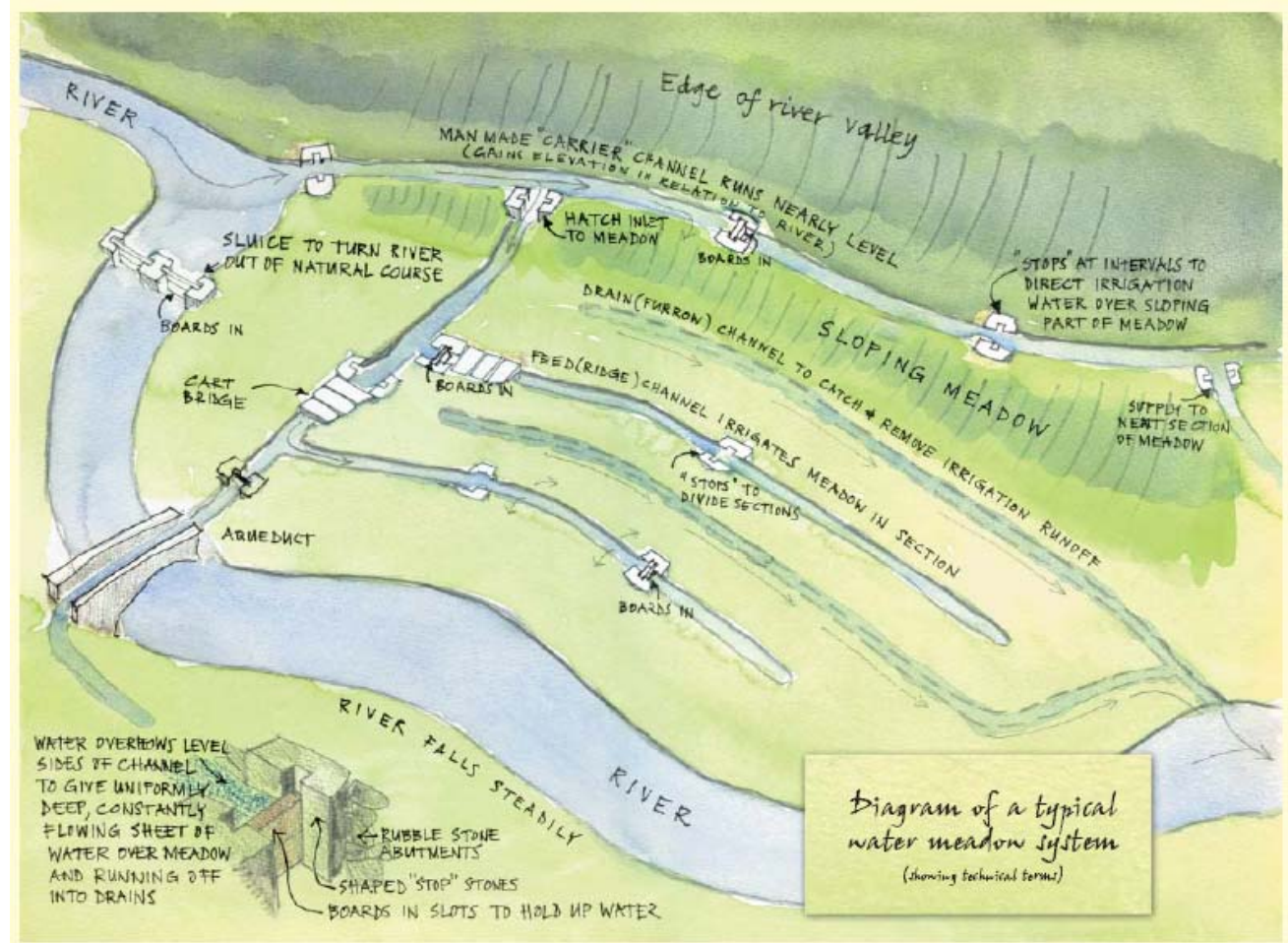
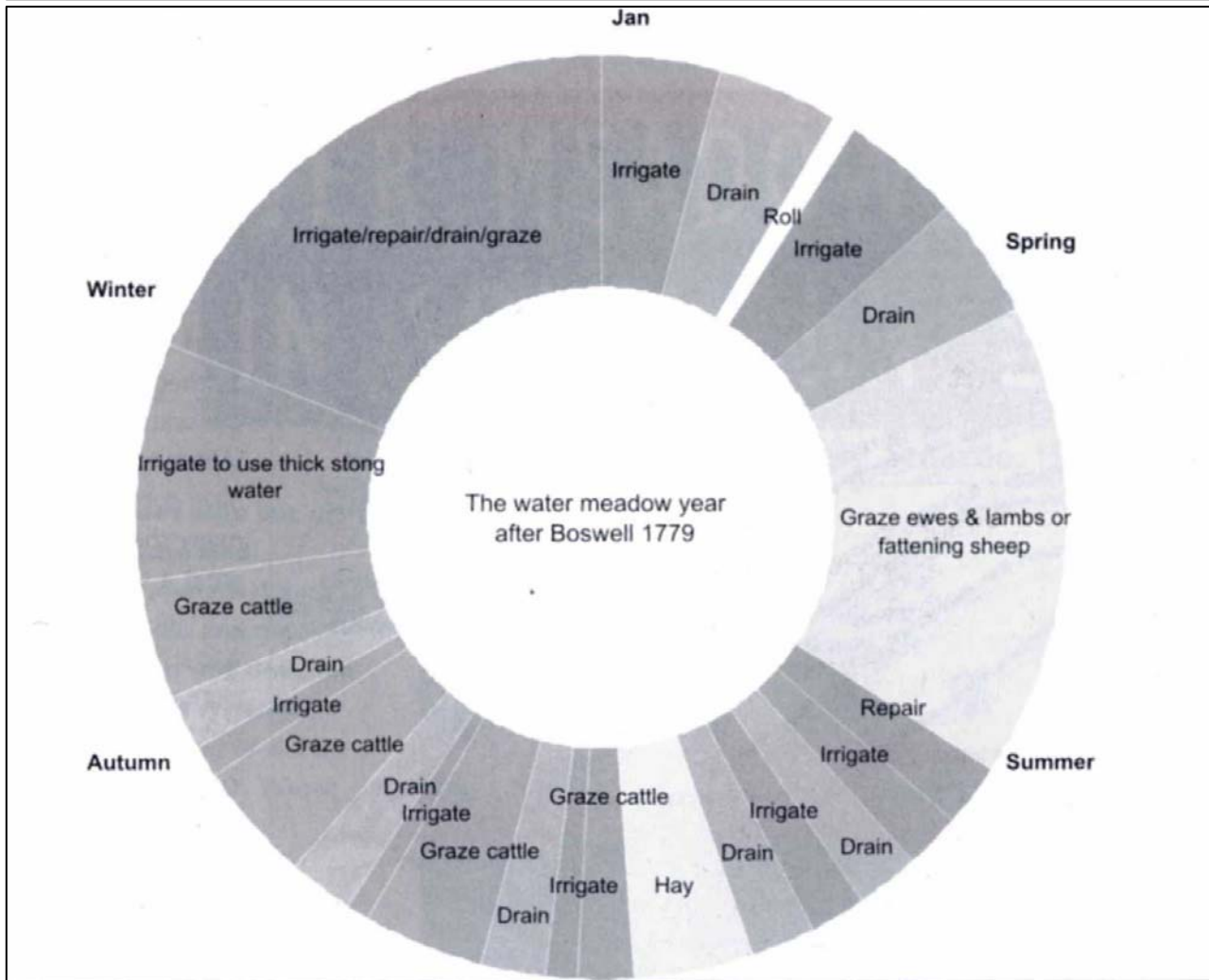


Image from Hampshire County Council

A water meadow year in southern England

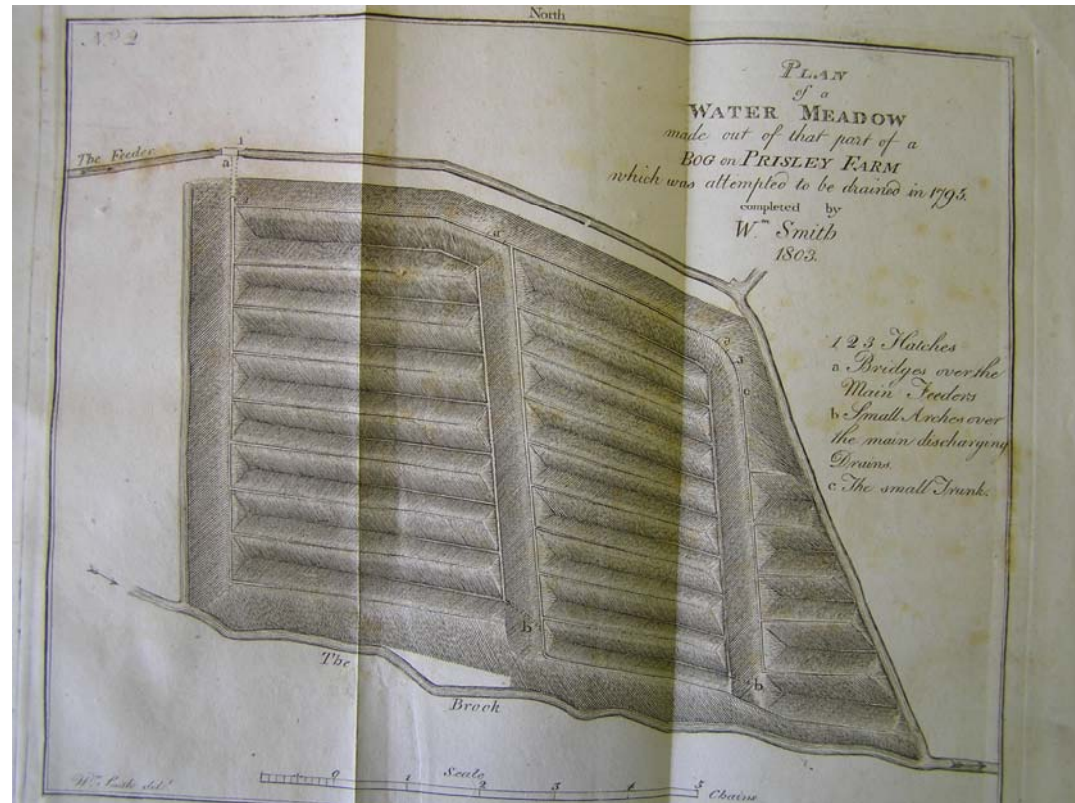


Boswell, (1779)

Dominance of southern & western England water meadows



(Harnham Water Meadows Trust)



Smith (1803)

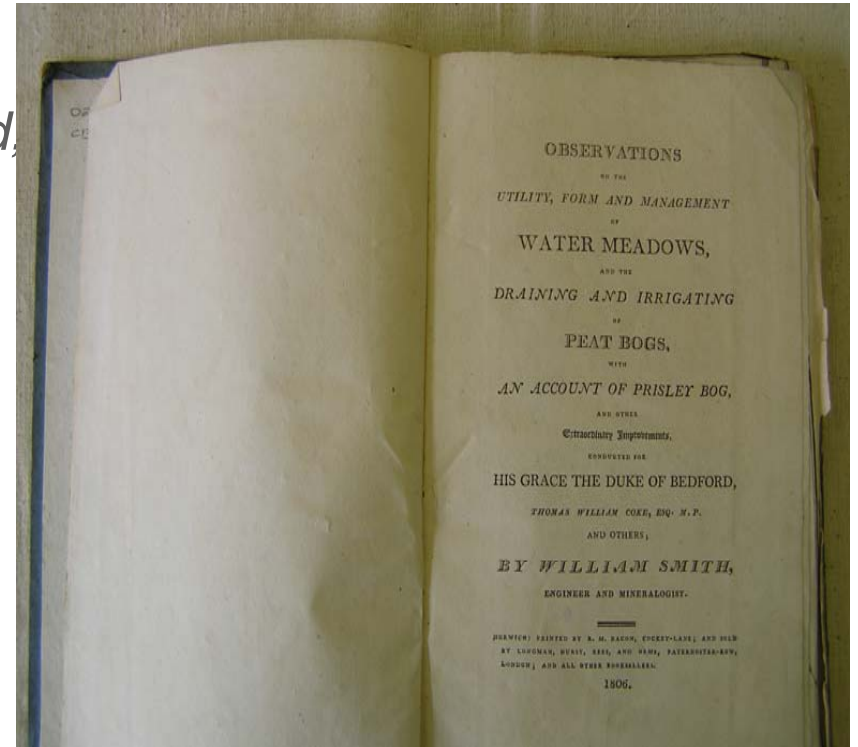
Factors contributing to early 19th Century expansion in water meadows

- Napoleonic War
- Food crisis
- High wheat (corn) prices
- Drive to productivity
- Availability of labour
- Peer pressure? One-upmanship on the large estates

19th Century expansion

*“The verdant meads by labour form’d,
With genial streams thro’ winter warm’d,
Put forth their March and April shoots;
To vie with May’s luxuriant roots”*

*“Why many millions pay for grain
From British soil we might obtain?
With toil and treasure spent in trade,
Our fields might soon be gardens ade.
More care to pastures poor extend,
By sheep and kine their herbage mend;
And where no swath of grass be mown,
There let the yellow corn be sown”*



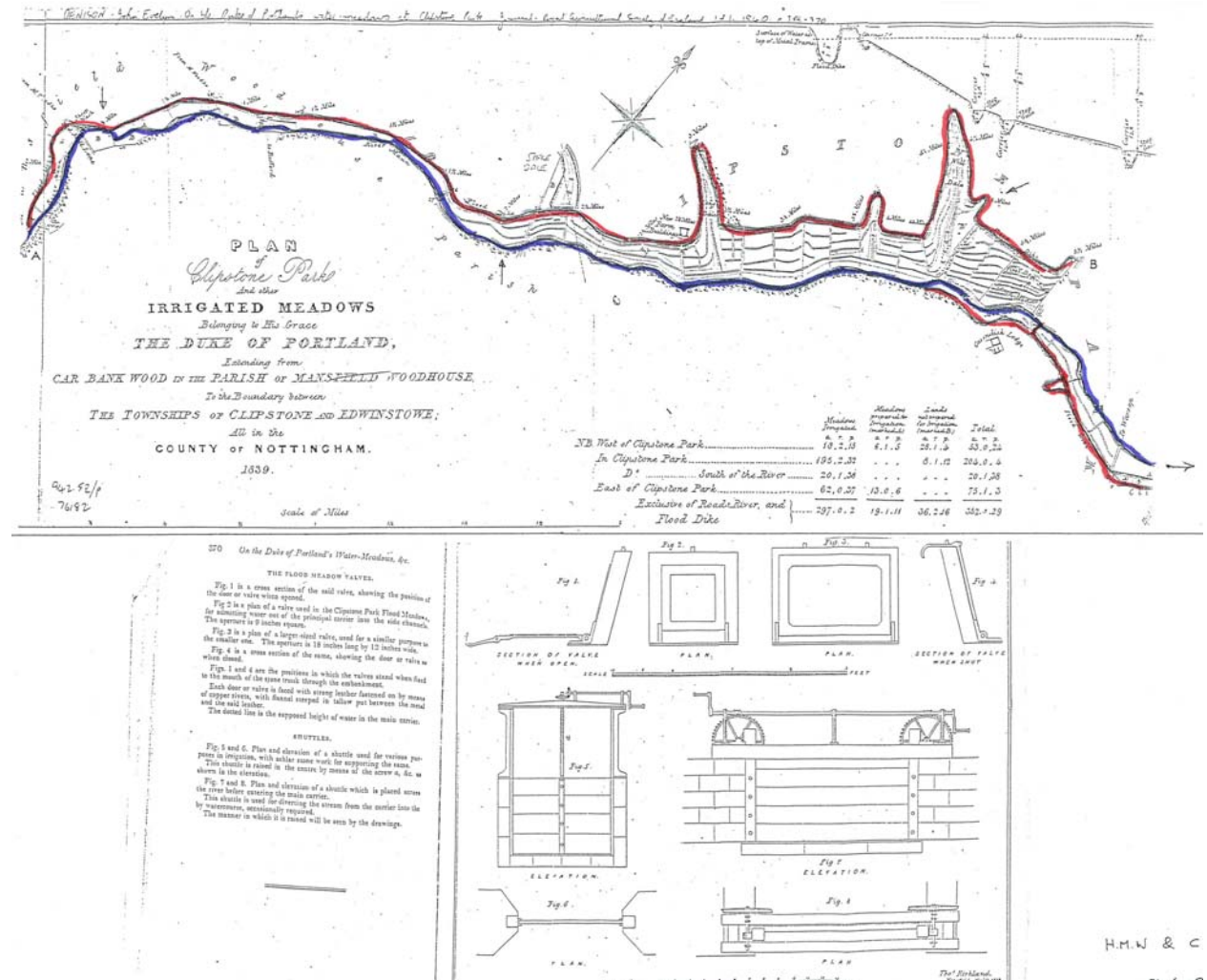
Welbeck water meadows as of 1849

- Maun (Clipstone) main area + Rainworth, Edwinstowe, Ollerton, Dog & Duck
- Mansfield Woodhouse
- Sutton – High Oakham
- Gleadthorpe
- Carburton
- Plus others in construction:
 - Cuckney
 - Milnthorpe
 - Also one at Rainworth – date unknown
- What of the other Estates?

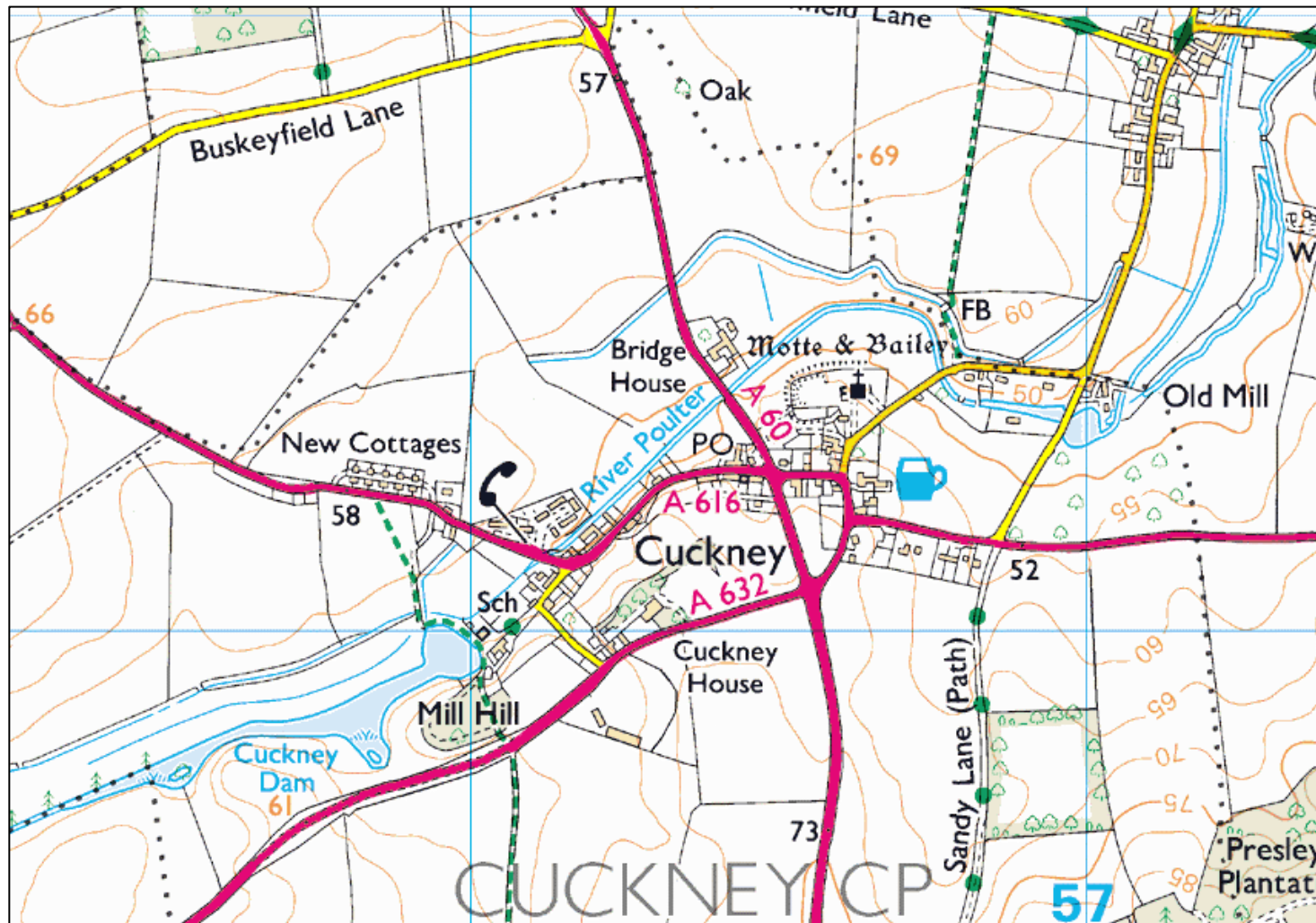


Clipstone water meadows

Described by
Denison,
(1840)

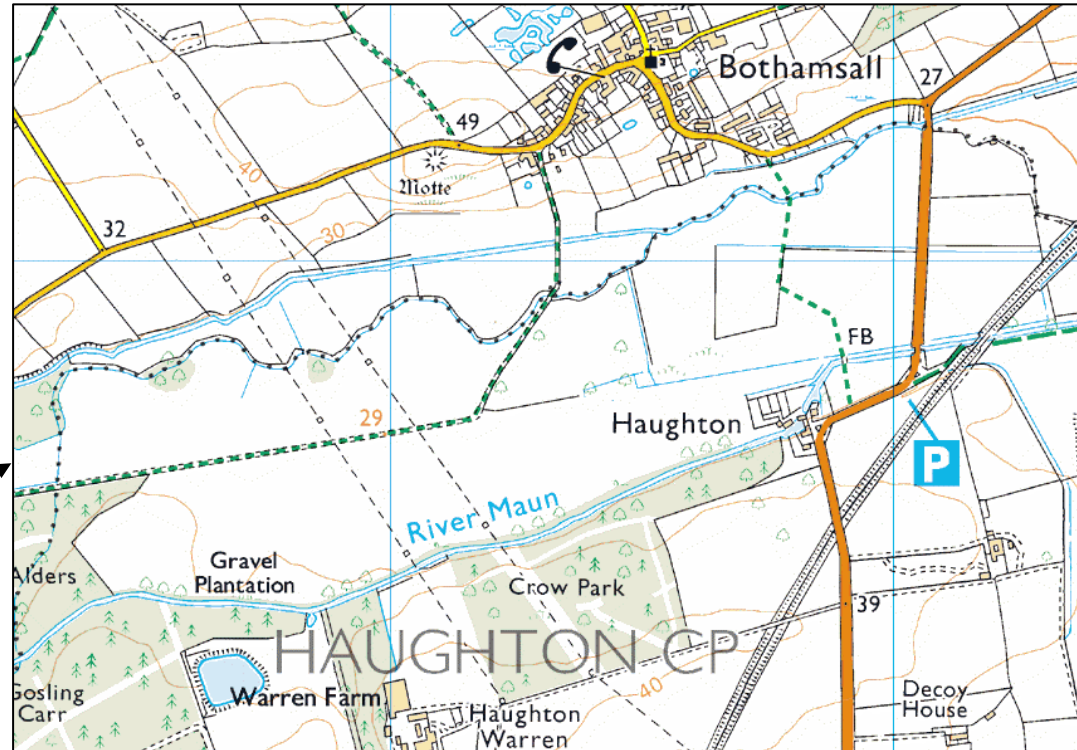
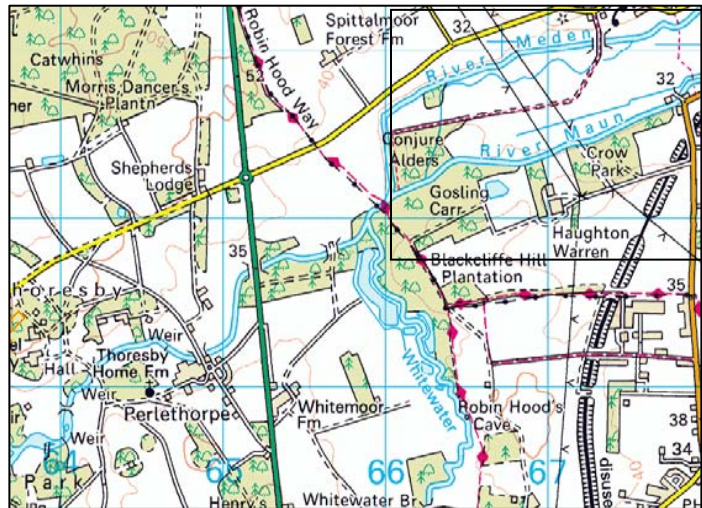


Cuckney water meadow



Thoresby - Bothamsall

Meadows in the
landscape...?

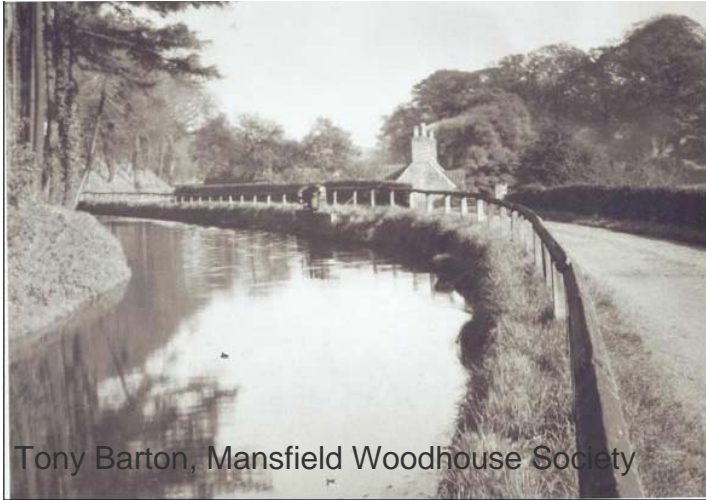


General decline of the water meadows

- Agricultural recession from about 1879.
- Cereal harvest badly affected by poor weather late 19thC
- Imports from America & new world impacted home prod'n
- Early 20th C, refrigerated meat (especially New Zealand lamb) was introduced – lower price than UK meat.
- Imported & man-made fertiliser reduced reliance on the benefits of water meadows.
- Post WWII drive for productivity; mechanisation, bagged fertiliser, and agrochemical development.



Decline of a landscape



Loss of mid & northern England water meadows

- Historical images of Nottinghamshire catchwork water meadows?
- Maps of Nottinghamshire water meadows?
- Documents & memories?
- Recording of Nottinghamshire water meadow features?



Restoration of a landscape - Carburton

Carburton
(1888)



Steam ploughing



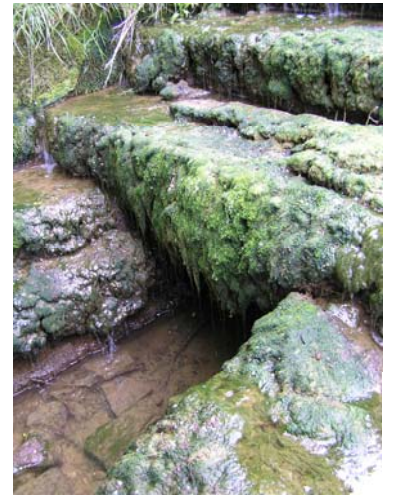
Carburton features



Carburton (cont)



Carburton (cont)



Carburton (cont)



Carburton current study & future management

- On-going study:
 - Aerial mapping & surveying
 - Floating/drowning operation
 - Grazing/cutting management
 - Habitats
 - Target species
 - Archaeological interest & integrity
 - Integration with wider landscape (between two SSSI's)
 - Educational material
- Needed
 - Research (hydrology/water quality, ecology, rural history, grazing)
 - Links to other initiatives (e.g. Catchment Sensitive Farming)
 - Work beyond pilot area?

Closing thoughts

- Water meadows - part of Nottinghamshire's landscape heritage
- A 19th Century triumph, skilled design and operation
- Few surviving examples with potential for water management?
- Need:
 - Desk & ground truth survey of Nottinghamshire to document & record surviving meadows and their features
 - Identify sites with restoration potential
- Multiple benefits:
 - Wet, low input grassland – BAP habitat
 - Living classrooms
 - Research opportunities – few studies outside southern England
 - Agricultural heritage – links to the high farming period; steam ploughing, early mechanisation



Thank you

Jonathan.Hillman@scottwilson.com

Shani.Lambert@ncc.gov.uk

Robert Bower, Manor Farm, Carburton