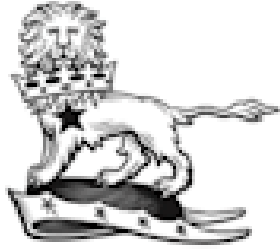


CASTLE HOWARD

Castle Howard Estate

Video update from
Guy Thallon, Head of Natural
Environment





CASTLE HOWARD

Castle Howard Estate

Tree Planting and Woodland Expansion

The importance of Trees – not just for timber

Carbon
Sequestration

Shade

Soil Erosion

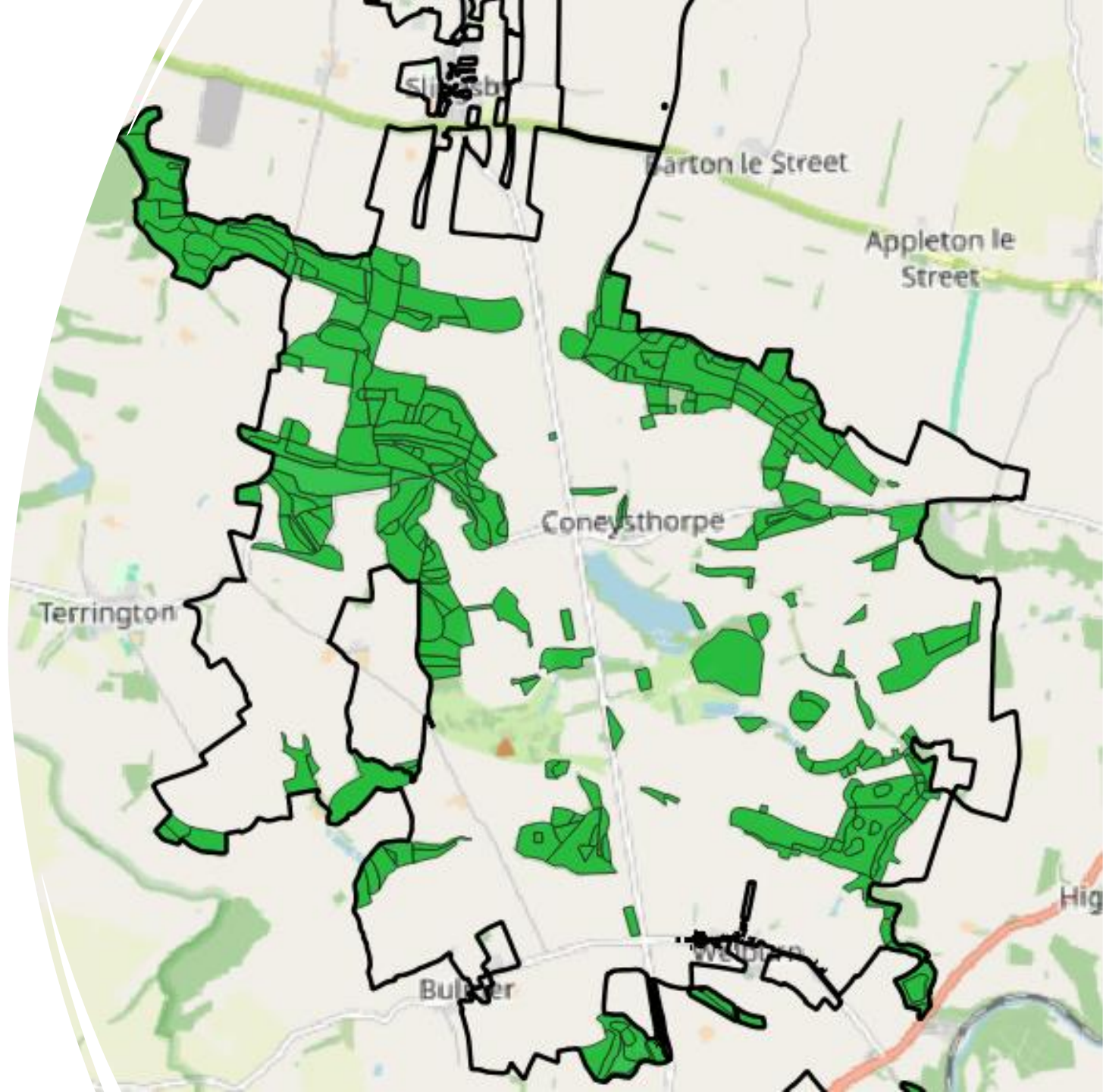
Biodiversity

Amenity

Food source

Castle Howard Woodlands

- Cira 850ha of mixed woodland – Ancient Woodland, PAWS, mixed broadleaf and conifer.
- 500ha of PAWS and 56ha of ASNW
- Ancient and Veteran Trees
- Village and Property Trees – Conservation Areas and TPO's



Woodland Management Plan Vision

- Forest Management Approach
 - Focus on PAWS restoration across 130ha over 10 years
 - Applying good silviculture practices (CCF and LISS/LIMA)
 - Improve species and structural diversity
- Biodiversity Approach
 - Woodland connectivity through woodland creation, creating woodland edge habitat
 - Conserve and enhance the ancient and veteran treescape
- Deer and Grey Squirrel Approach
 - Maintain current levels of deer control
 - Build upon levels of grey squirrel control in recent years

Management Plan Objectives

- Totalling 18 objectives
 - Silviculture for the enhancement of nature while creating quality timber
 - Woodland expansion both native and commercial conifer
 - Invasive species control – Grey squirrel, Himalayan Balsam
 - Maintaining Historical features within the woodlands
 - Biosecurity (an increasingly important subject)

Countryside Stewardship

- 2022-2027 Higher Teir Countryside Stewardship
- Deadwood Creation
- 43km of ride line cutting in a 3-zone regime
- Maintain open space
- Invasive specie – Rhododendron and Balsam
- 3ha Hazel Coppicing
- Deer and squirrel control – including impact monitoring



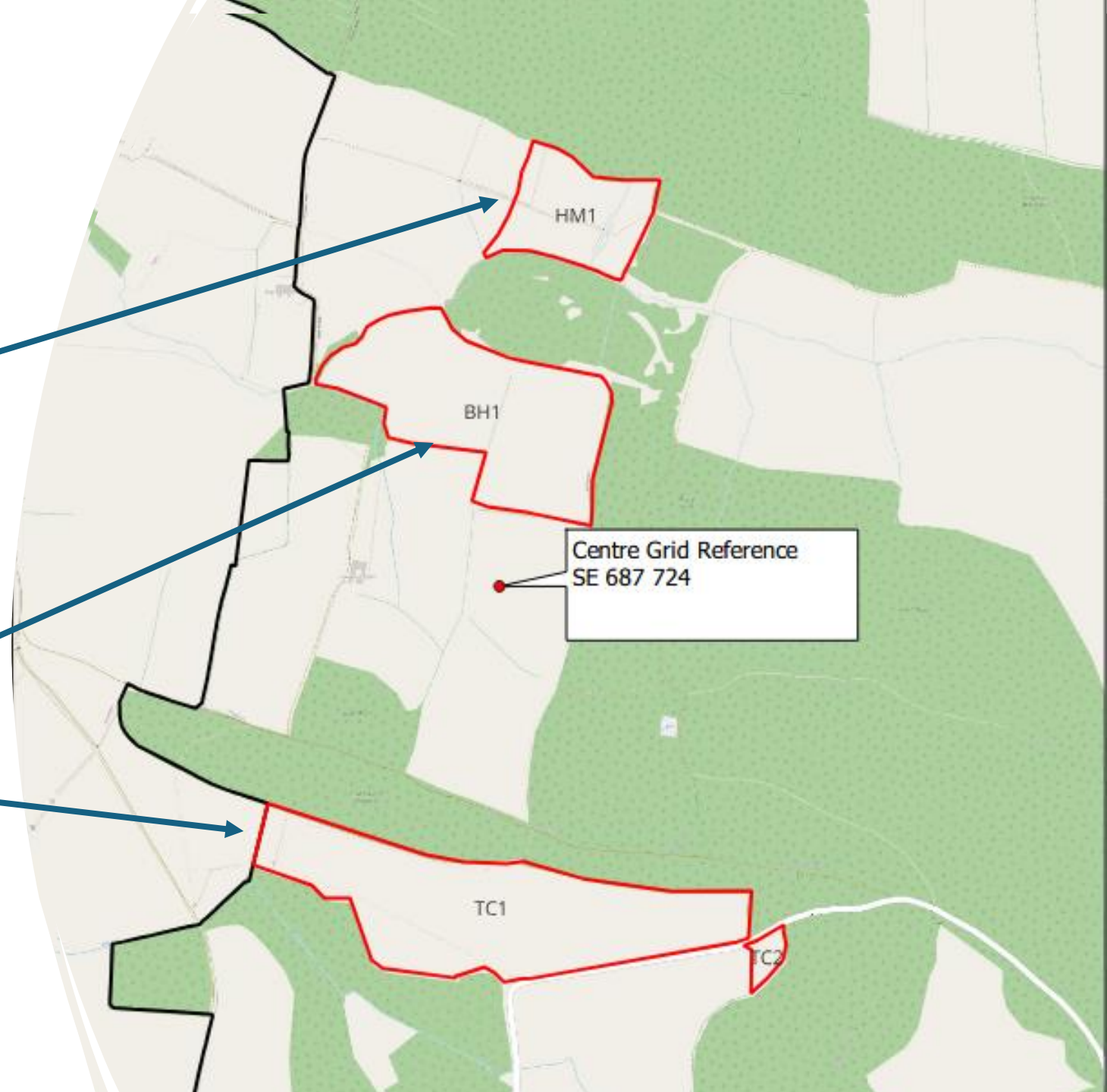
Woodland Creation Project

- 3 Phases totalling about 95ha spread out across the estate
 - Native Woodland Expansion, Nature recovery, Forest resilience and timber production
- Area's chosen adjacent to existing woodland, on fields that were not productive or had issues like erosion.
- Phase 1 is currently being processed by the Forestry Commission

Phase 1

- 61,623 trees consisting of 11 species
 - Oak, Hornbeam, alder, willow, cherry, hawthorn blackthorn, rowan, hazel and a small number of Scots Pine and beech.
- There is a focus on native woodland expansion and nature recovery.
- Varying planting densities from 400/ha to 2500/ha. 5-6m spacing to 2m spacing.
- Areas of open space, and ride lines will be cut to encourage wildflower growth.

- 34.34ha of native woodland over 3 different compartment
- Compartment 1 (HM1): native low-density woodland with high percentage of open space and ride lines. Random planting pattern from 400-1600 trees/ha.
- Compartment 2 and 3 (TC1 and BH1): more traditional planting pattern 2500 tree/per ha planted in rows for ease of management. Incorporating rides, open space.



Phase 2

- Woodland Creation Phase 2 will have a focus on timber production and climate resilience.
- The importance of species choice (dependant on the objectives)
 - Soil conditions
 - Climate resilience – drought or waterlogging resistant
 - Pests and Disease resistant
 - Quality of timber
 - Type of Rooting system (especially urban related)



Tree Shelters and the reduction of Plastic

- With any tree planting consideration should be taken on how to protect the tree from damage.
- Plastic shelters will soon be a thing of the past
- Current areas where there are plastic shelters when the time is right, remove them and recycle.



Tree Nursery

- Castle Howard Tree Nursery Plant Healthy Certified
 - Follow best practice for biosecurity – maintain records for plant traceability, monitoring of signs of disease, and disinfecting boots and machinery.
- We supply trees and shrubs for a number of different projects from single tree planting, kilometres of hedging and woodland creation and restocking.
- Last year we supplied 30.5km of hedging plants, 30,000 Oak and 23,000 Conifer.
- Alongside plants, we also supply tree shelters and bio-spirals



Expanding and Modernising

- Over the past 2 years we have expanded the area of nursery by almost 6ha
 - Tree Production Capital Grant
- Modernising the nursery through machinery and technology
- With the first round of funding we were able to:
 - Fence the new site
 - Irrigation hoses and pump
 - Sowing machine, interrow hoe, undercutter, bed former and bed lifter.

Main Challenges

- Weather extremes
 - This season saw a huge drought followed by sporadic rain fall
 - Last season was the opposite with areas flooded and see rotting in the ground.
- Weeds
 - A never-ending battle. Despite modernising, hand weeding it still the most effective method.
(There is always a job)
- Pest and Diseases (Biosecurity)

Take Home Message

- When thinking of planting:
 - Know your site - no matter how big or small
 - What are the current conditions, what are the future condition likely to be?
 - Species Choice is key
 - What is the likelihood of pests or disease for the chosen species?
 - Does the tree need protection from browsing or other damage
 - Is there an alternative to plastic
- If you need some trees – Call the Castle Howard Tree Nursery