



Land Use Plan June 2021

This document summarises the current version of the Land Use Plan proposed for the regeneration of the land held by Springham Grove LLP under biodynamic and re-wilding principles.

Background to the farm

The land at Springham consists of 89ha of semi-improved pasture, 6 ha of planted and ancient woodland, numerous lines of trees and semi-functional hedgerow, 10 ponds, three major and three minor gill streams, 2km of river edge and the farm buildings plus hardstanding. It sits within the High Weald Landscape Character area and demonstrates many characteristics of the High Weald protected landscape, but is located just outside the Area of Outstanding Natural Beauty. The mostly grassland farm has benefited from a number of years of benign neglect and was under an Organic Environmental Stewardship scheme until a few years ago. Very few inputs have been applied to the land in the last 10 years and the benefits of this are seen in the large number of Weald native grassland species present, including beneficial medicinal plants and nitrogen-fixing species.

Overall land use strategy

The intention is to combine biodynamic practice with regenerative agriculture techniques to create a food production environment that also supports nature in the area. The main principles of this approach will be:

- investing in soil improvement for biodiversity enhancement, forage quality, carbon sequestration and allowing livestock to be out all year
- promoting the development of hedges and woodland areas through natural regeneration and enrichment planting to increase structural diversity, promote water infiltration and support biodiversity
- using established biodynamic and holistic grazing techniques that are known to work on Weald clay
- incorporate a biodynamic market garden as the gateway to the farm
- incorporate food and fibre production in the hedges and woodlands
- use wood pasture as a land management model to reflect the history of the site
- develop a wet woodland along the river line to help mitigate downstream flooding and improve biodiversity
- start on Biodynamic Organic conversion immediately

Soil analysis

Inspection and testing of the soil from representative fields has shown that:

- although slightly compacted, the soil has reasonable structure and an average worm count of 3.5 per 25cm cube surveyed
- the soil pH is slightly acid
- the magnesium, potassium and nitrogen indices are within the expected ranges for undisturbed grasslands
- the phosphate index is low and therefore highly suitable for maintaining species-rich grasslands



- the organic matter is moderate at 6-9%

Specific land use plans for 2021 and 2022

1. The main grassland areas

The farm has been surveyed by a qualified ecologist and by experienced farmers who have operated holistic grazing on heavy Weald clays successfully for 10 years. The combined view of all who have seen the land is that the following steps are needed to build soil resilience prior to the establishment of permanent livestock on the land:

- a period of rest from the uncontrolled grazing present when the farm was acquired
- avoid making hay in 2021 to ensure that grassland root development is as strong as possible, so that carbon storage, earthworm numbers and soil structure all improve
- undertake holistic tall grass grazing from August 2021 for a minimum of 60 days to increase nutrient cycling, improve soil structure and hydration, and deal with thistles
- operate the holistic grazing in small paddocks suitable for 100-150 cattle under expert guidance whilst training permanent farmer candidates
- remove the cattle in late autumn or when the forage and soil conditions dictate
- supplement the soil ecology development with biodynamic preparations and/or Soil Food Web preparations and compost made on the farm
- Review and repeat this cycle in 2022

An agreement has been reached with two local farmers who have low-input cattle and have run a zero-input grassland grazing regime that keeps grass available all year round. These farmers will bring their cattle to run a holistic grazing system from August to December 2021 and possibly in 2022 as well. Whilst this will require a derogation from the Biodynamic Guidelines, there is no established holistic biodynamic grazier with experience of Weald clay available to undertake the soil regeneration required for the first two years and the financial and ecological risk of asking a new entrant to undertake this work in 2021 would have been too great.

The holistic grazing system used will be derived directly from the work of Allan Savory and will allow the livestock to meet their behavioural needs based on his research of herbivore behaviour and role in ecology. The overall land usage layout is as shown in Figure 1 on page 2.

Once the first two years of holistic grazing have been completed, a farm-based biodynamic herd of local breed cattle will be established, according to the biodynamic principles, and fed on an entirely pasture-based system. A candidate herd of existing biodynamic cattle has been identified to start this work in 2023. When a herd of cattle is established, the meat will be sold through local organic box schemes, local organic wholesalers and a small shop on the site. There are local abattoir facilities available.

Cattle are the traditional managers of pasture on Weald clay, as their ecology is better adapted to the ground conditions and the plant communities that thrive on the slightly acid clay soils. Sheep have the tendency to create 'pans' in the soil and add to surface water run-off that would increase problems in the river catchment. There may be scope for small amounts of sheep grazing as cattle followers once the cattle are established. For the first two years there will be no requirement for winter cattle housing, although there is a facility available for this if required and this is being refurbished. From 2023 onwards it is expected that the soil management regime will have improved soil and sward structure to the point where the permanent cattle herd can be

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outwintered, although obviously the back-up cattle housing will be made available should soil or weather conditions dictate this.

As the farm fencing and watering systems are dilapidated, the re-establishment of the grazing and watering infrastructure has been supported by the Green Recovery Challenge Fund Plantlife Meadow Makers project. This project aims to improve grassland biodiversity by a range of methods, including holistic planned grazing. An application has also been made to the Sussex Lund fund to contribute to the habitat regeneration that is expected through the grazing system introduction.

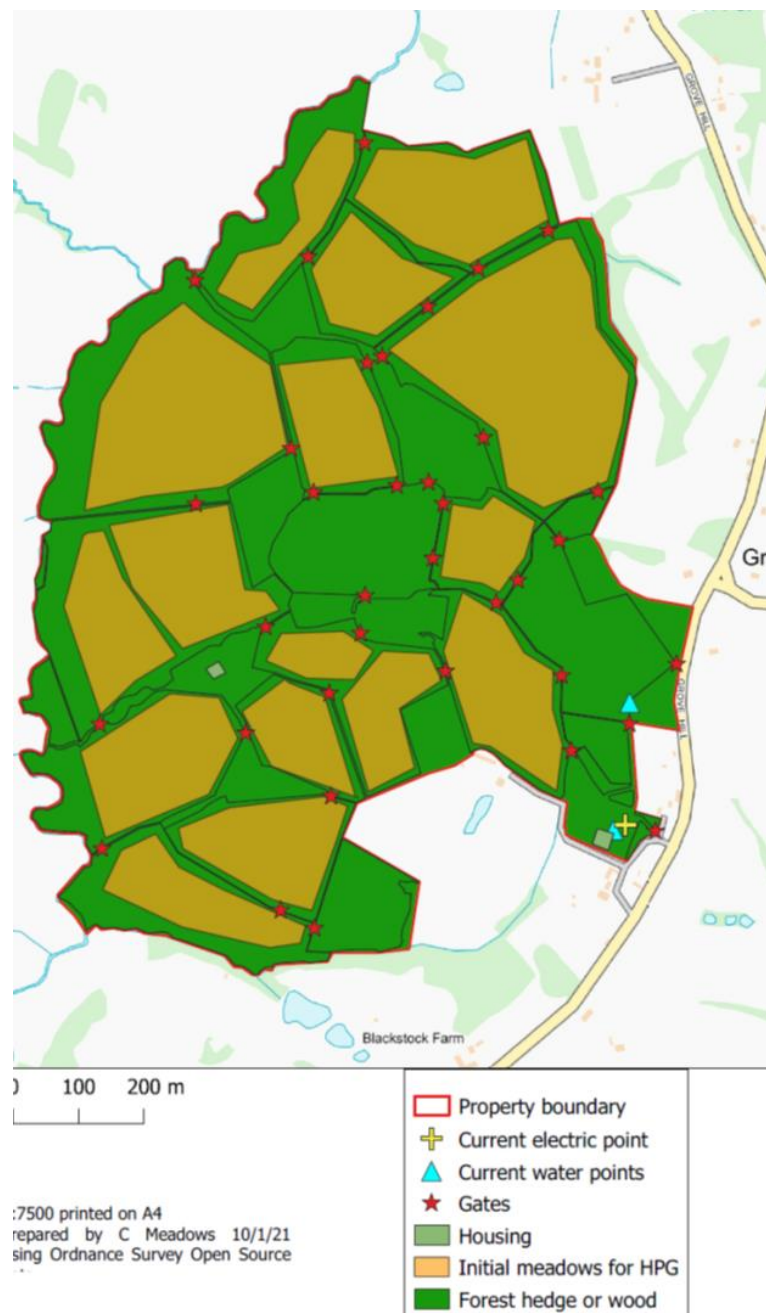
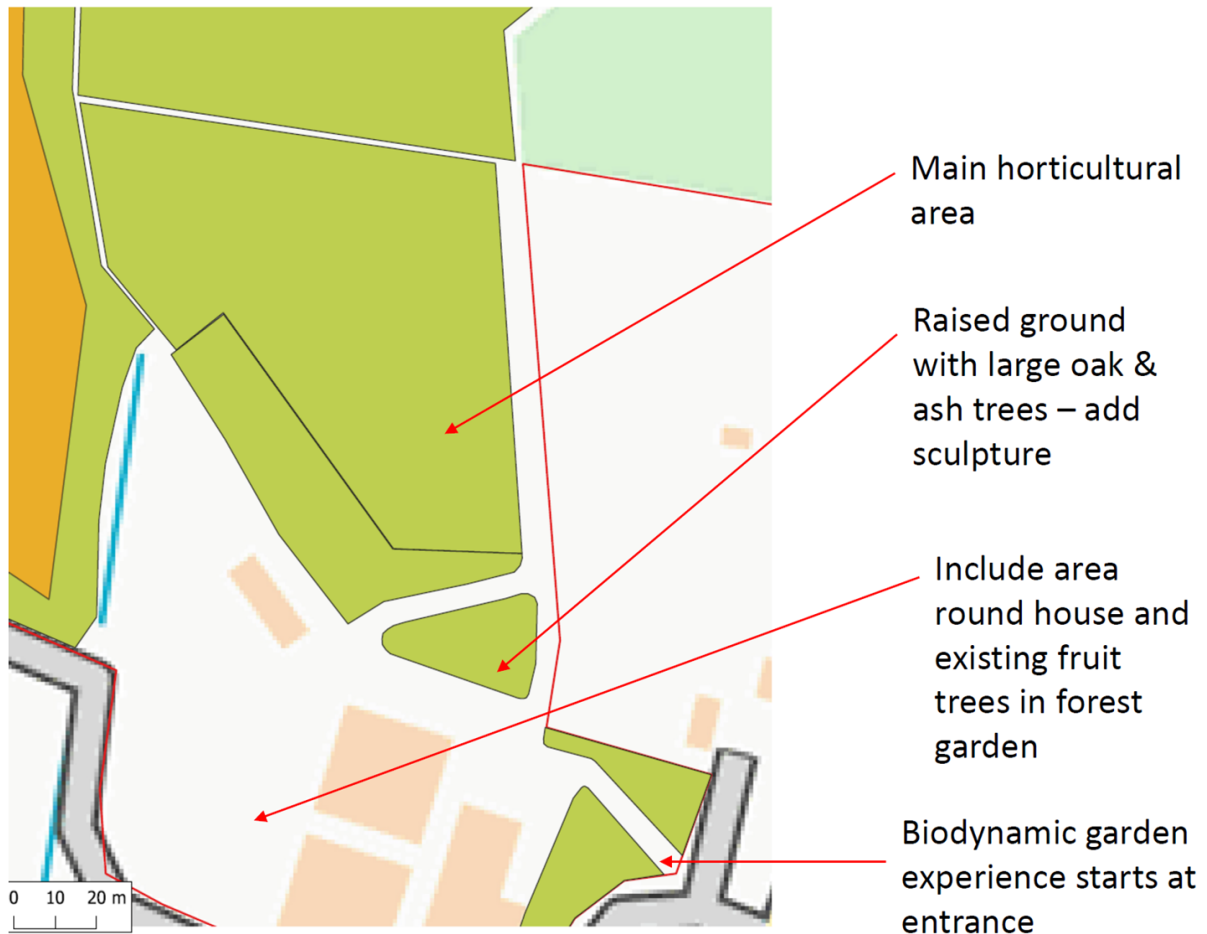


Figure 1. Overall land and grazing system layout

2. The biodynamic market garden

An area close to the entrance and the farm house, approximately 2ha in total, has been identified for the creation of a biodynamic market garden, including fruit and nut trees and vegetables. A design for this biodynamic horticulture and water management space has been prepared and work will begin in 2021 to lay out the ground for this. Produce will be sold through the same routes as the meat production. The area to be included in the biodynamic gateway garden is shown below.

Biodynamic gateway garden – design brief



3. The woodlands and hedges

The new semi-permanent fencing system being installed for holistic grazing will provide space for the development of biodiversity on the farm. Hedges will be allowed to 'bloom out' and woodlands will be extended through natural regeneration and enrichment planting. As well as supporting the biodiversity, these woody structures will provide homes for beneficial predators, shelter for livestock and plants, reductions in evaporation during dry periods and better water infiltration during heavy rainfall.

The semi-permanent fencing system will be supplemented by temporary fencing that can allow selective browsing of hedges to create structural diversity for biodiversity improvement, or can protect hedgerow crops as required. Sloes, hawthorns and blackberries are already present in the hedges, and more wild or semi-wild crops such as bullace can be included in the hedge enrichment planting.



Hedges will be managed so that the bases expand out, thus creating nesting habitat for nightingales and allowed to grow taller so that they can be re-coppiced for woodchip and compost on a rotational basis around the farm.

Edges of woodlands will be allowed to expand in a similar way to the hedgerows, with any thinnings from woodlands contributing to the woodchip and compost on the farm. Additional planting of trees will be of native species present in or lost from the landscape e.g. hornbeam, small-leaved lime, field maple, rowan. Oaks and blackthorn seed themselves with no difficulty. The wet woodland at the riverside edge will be the subject of a separate project plan intended to take advantage of funding and support from the local water company and the Environment Agency, with the specific intent of improving water quality and reducing peak flood events on the River Cuckmere.

4. Ponds

Most of the current ponds are modern constructions by the previous owners and were stocked with carp to provide a fishing income. The ponds are of poor quality construction and currently disturb the natural water systems in the gill streams. However, they are holding back a large amount of sediment from the river so the water company would prefer that the earth dams are left in place and supported with better outflows. The engineering plan for this will be developed in late summer 2021 when the water levels are at their minimum.

Additional ponds will be introduced to the site in future years, both for ecological and for possible livestock watering purposes. These changes will be the subject of a separate plan.

The carp in the ponds will be removed to allow the natural ecosystems to recover, and will be rehomed at a local fishery.

5. Additional land management activities

The farm will be entered for a Countryside Stewardship Mid Tier agreement for 2022 to support the grassland income.