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Ringswell Common Restoration Plan

Version 2.0



Martin Smith

CONTENTS

	Page
1.0 INTRODUCTION	3
2.0 PROPOSED RESTORATION WORKS	5
3.0 FENCING AND PROTECTED AREAS	11
4.0 TIMETABLE OF WORKS	12
5.0 GRAZING PLAN	14
6.0 AMENITY AND ACCESS	14
7.0 MONITORING AND REMEDIAL MEASURES	15
8.0 FUNDING AND RESPONSIBILITIES	16
REFERENCES	17
APPENDIX 1 SITE PHOTOS	18

1.0 INTRODUCTION

This Revised Management Plan includes details on the restoration of Ringswell Common, a Site of Nature Conservation Interest (SNCI) located within the south-east of the historic market town of Marshfield, the Cotswolds Area of Outstanding Natural Beauty (AONB), South Gloucestershire, central grid reference: ST 78428 73401, figure 1.

The Management Plan was produced by Martin Smith, BSc hons, who is a qualified ecologist on behalf of the Marshfield Parish Council, who own Ringswell Common.

This management plan follows Advice from the Avon Wildlife Trust in 2017, an Advisory Note for the Restoration of Ringswell Common (Smith, 2020), a summary/response on the Advisory Note by the South Gloucestershire Commons and Biodiversity Coordinator, Mathew Lipton, and the South Gloucestershire Tree Officer Simon Penfold, and a meeting between the Parish Council, Mathew Lipton, and Martin Smith.

A 3-year management plan is provided within this report. This will include a timescale of proposed restoration works, a grazing plan, a monitoring timetable, and remedial measures if applicable.

The aims of this plan include the restoration of a calcareous grassland bank and the re-introduction of grazing onto the common. This plan includes measures to retain the ecological connectivity on site, increase the habitat diversity and biodiversity of the common, increase its amenity value for residents, and promote the sustainable grazing of the common.

1.1 Aims and Objectives

- Encourage and promote sustainable farming
- Increase biodiversity
- Provide good condition habitats with vegetative structure to increase carbon sequestration
- Restore the south-west facing calcareous bank
- Open-up areas of grassland and woodland for low intensity grazing/browsing
- Manage woodland and promote shrub layer growth within woodland sections
- Retain and improve ecological connectivity
- Provide a mosaic of habitats for a range of wildlife
- Provide measures to limit the impact of the works on wildlife and environment
- Provide a safe, welcoming, aesthetic place for the public

1.2 Site Location

Ringswell Common is 2.2 hectares and is located within the Parish of Marshfield, South Gloucestershire, and within the Cotswolds Area of Outstanding Natural Beauty (AONB). The common is approximately 1.5km east of St Catherine's Site of Special Scientific Interest (SSSI) and within 6km of Bath and Bradford on Avon Special Area of Conservation (SAC).

Figure 1 *Ringswell Common*



2.0 PROPOSED RESTORATION WORKS

The plan includes recommendations to restore a section of a remnant calcareous grassland bank to the east of the common, the restoration of the western grassland, the creation of wood pasture, and the planting of a native species rich hedgerow. These works will be phased over several years; a timetable of works is provided within section 4 of this management plan.

Figure 2 Restoration Plan



The following recommendations relate to the restoration plan key displayed in figure 2 and are detailed below.

2.1 Western Field

The existing grassland to the west of the site was comprised of species poor grassland with scattered trees. After consultation with Laurie McIntyre from Emorsgate seed it was recommended to sow a local provenance seed mix sourced from the St Catherine's Valley. This will include re-seeding 450m² of the bank of the strip lynch closest to the road. Eight fruit trees will also be planted within this section. The fruit trees will all be of vigorous rooting stock and will be planted in the style of a traditional orchard following the Natural England Technical Information Note (Natural England, 2020).

2.1.1 Grassland

The grassland bank will be reseeded with the St Catherine's seed mixture EM18 for limestone soils. This seed mixture was originally collected from the St Catherine's SSSI, 1.5km east of the common. The methodology to reseed this section is provided below. An additional 25 plug plants for limestone soils were recommended to be planted available from: <https://www.naturescape.co.uk/product/n13-chalk-limestone-soils-plant-collection/>

Creation

- Graze grassland section hard in the late summer (August – September) to remove majority of vegetation from the grassland bank
- Scarify hard to create 50% bare soil (ideally when the ground is dry)
- Sow at 2g/m² in September using the EM18 mixture
- Firm in to achieve good seed/soil contact
- Plant 50 plug plants within this section once the seed has been sown and water once planted

Management

- This section should be grazed in the spring and autumn
- Encourage some sections of bare ground and a diverse sward and prohibit the growth of dominated grasses to provide a diverse herbaceous sward
- This section could be scarified and resown with yellow rattle to reduce the growth of agricultural grasses if required

2.1.2 Fruit trees

Trees will be of M25 vigorous root stock. Varieties were recommended by Adams Trees and include Beauty of Bath, Rosemary Russet, Cornish Aromatic, Winston, Farmer's Glory, Hockings Green, Nine Square, and English Codling.

Creation

- Eight trees will be planted following the spacings provided within the NE technical note regarding traditional spacings
- 8-10 m between rows and 7-9 m between trees within the rows
- Tree guards will be supplied and used to ensure that the root avoid excessive shaking before the roots are established
- Fencing to protect the trees from cattle will include three wooden posts and wire mesh

Management

- Trees will be mulched and watered, if required
- Trees will be mulched to best practice horticultural standards
- Stock proof fencing and the tree guards will be adjusted as required

2.1.3 Ash Trees

A single ash tree should be removed. The tree is semi mature and is located adjacent to the existing apple tree (see figure 2). The tree has a significant wound on the main stem and is shading the apple tree adjacent.

2.2 Calcareous Grassland

This management plan includes the restoration of a calcareous grassland bank. This will include extending the remnant patches of grassland on the lower bank. The bramble at the top of the bank will be retained. The aim is to allow the cattle to browse the bramble, to break it up, and create paths within the scrub. Once the three-year plan has been completed this section will be reassessed and further restoration works may be recommended.

Restoration

- Remove scrub from the lower bank (with grasses present at ground level)
- Coppice hawthorn at top of the bank but retain the bramble scrub at the ground layer
- Seed the bank with the St Catherine's seed mixture EM18 and follow the recommendations within the grassland section 4.1.1
- Plant 50 plug plants within the grassland sward and within the bare ground section at the top of the grassland section
- Ensure that scrub is retained at the edges of the grassland and aim for rough scalloped edges

Management

- Encourage a diverse grassland sward and promote sections of scrub adjacent to the bank and small sections on the bank
- Control excessive blackthorn and bramble encroachment on bank
- This section should be grazed with cattle in the spring and autumn

2.3 Wood Pasture

This section, just north of the sewage works will be thinned to allow light to penetrate the woodland floor. The aim is to have a grassland ground layer within this section. The removal of ash within this section will allow light to penetrate the eastern bank (already cleared). The works within this section will include the removal of semi mature ash trees which have ash die back disease.

Creation

- Remove all the semi-mature ash trees and 50% of the hawthorn scrub
- Planting within this section will include 2 English oak, 2 field maple, and 2 guelder rose
- Follow recommendations within section 2.5 regarding the planting of trees
- Encourage grasses to take hold within this section
- Retain deadwood on site by creating wood piles and sections of dead hedging
- Coppice hazel and the damaged elm tree
- Use the brash from the coppice trees to prevent deer and cattle feeding on the regrowth
- The grass may take a while to establish within this section and the cattle may have to be excluded until the roots take hold

2.4 Eastern bank

The eastern bank, adjacent to the beech trees (cleared previously) will be sown with the Emorsgate EH1 hedgerow mixture. The EH1 contains wildflowers and grasses that are tolerant of semi-shade and is suitable for sowing beneath newly planted or established hedges and on woodland edges, rides, and glades. Several hawthorns will be removed adjacent to the oak at the top of the bank to allow the oak tree to establish.

Creation

- 1000m² will be sown with the hedgerow mixture in the spring or autumn
- Remove hawthorns adjacent to the oak at the top of bank

Management

- This grassland should be cut in the summer or topped or scythed
- Graze as per timetable
- Remove undesirable weeds such as nettles, ragwort, or broad-leaved dock

2.5 Creation of Species Rich Hedgerow (located on Pitt Farm)

A hedgerow will be planted to the south-west of the common to connect the common with the wider environment. Recommendations to create and maintain the hedgerow are provided below

Creation

- The hedgerow will be planted when the trees are dormant between November and March
- Vegetation at the ground level will be cleared before the hedgerow is planted
- The hedgerow will be planted with bare root stock and will include species of local provenance such as 50% hawthorn, 25% blackthorn, 15% field maple, 2% privet, 2% bird cherry, 2% wild service, 2% guelder rose, 1% crab apple, and 1% holly
- The hedgerow should be planted in zig zag lines at two-foot intervals
- Tree guards should be used where necessary
- Electric fencing will be installed either side of the hedge to prevent grazing from cattle or sheep.

Management Cycle (20 Year)

- The hedgerow should be frequently trimmed within the first 5 years to ensure dense structure
- The hedgerow should then be cut on rotation once every three years on alternate sides (left/top/right) to ensure high fruit production
- When required the hedgerow will be allowed to grow up for rejuvenation before laying or coppicing to repeat the cycle.

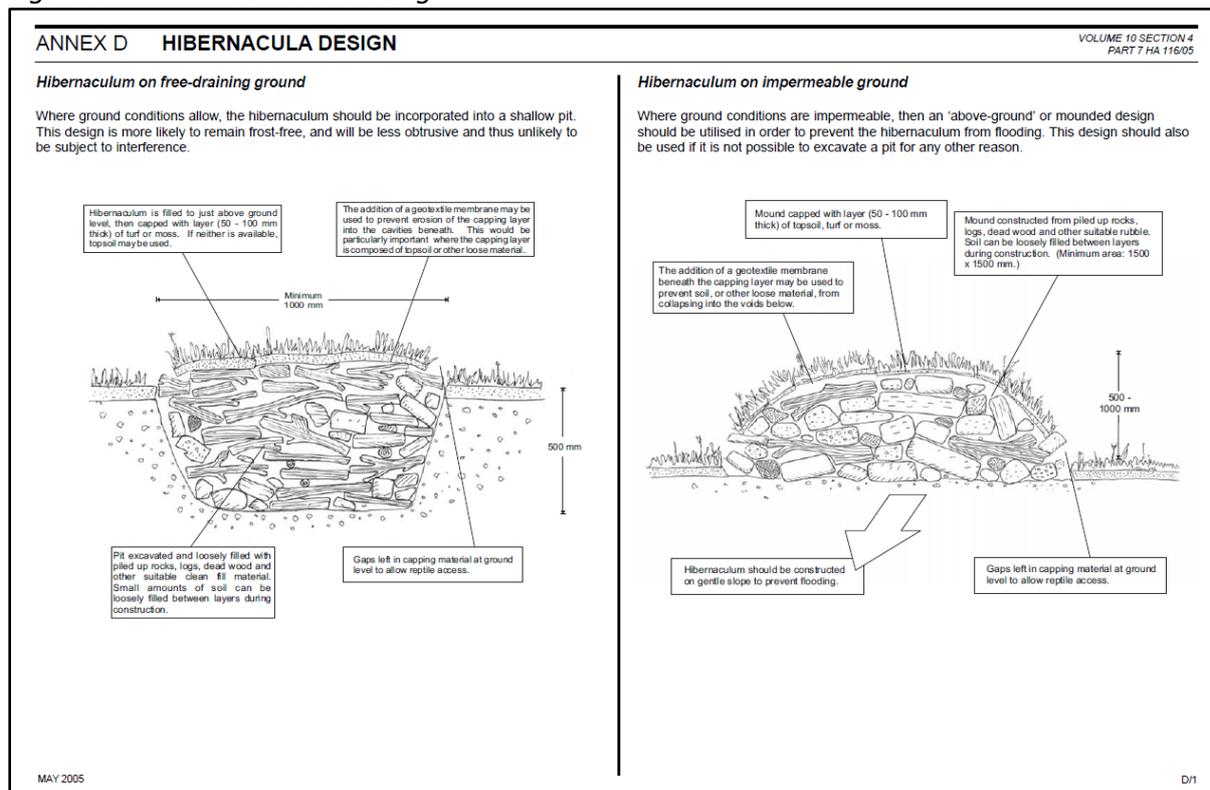
Restoration/Management

- The hedgerows will be maintained with high basal density – this will be achieved by allowing bramble and other scrub species to grow at the base of the hedgerows. ‘Neat’ hedgerows will be avoided. This will provide foraging and nesting habitat for birds, hedgehogs, and invertebrates
- Infrequent cutting of hedgerows to allow fruit and nut production which will benefit a wide range of faunal species. Cutting will be undertaken on a three-year rotation
- The hedgerow will be cut between January – February to avoid impacts on wildlife and to ensure high fruit production

2.6 General Recommendations

- All works that may impact nesting birds such as tree and scrub clearance must be undertaken outside of the main breeding bird season; March to September
- Keep fires and paths to a minimum to avoid impacts on wildlife
- Works will be undertaken in a cold spell and within dry weather conditions (if possible) to mitigate the impacts of erosion on the Doncombe Brook
- A water trough should be installed in the western field to provide water for the livestock
- Wood and brash should be retained onsite as wildlife refugia this will provide hibernacula for reptiles and amphibians
- Two hibernacula will be created adjacent to the Doncombe Brook (figure 3)
- 10% thinning will be undertaken on all woodland section not shown within Figure i.e., north-east, and southern section
- Herbicides and pesticides cannot be used on the common

Figure 3 Hibernacula design



3.0 FENCING AND PROTECTED AREAS

3.1 Temporary Fencing

Temporary fencing can be erected for up to six months to restrict the movement of cattle on a common (Gov, 2015). This can be undertaken by the owner of the common (Parish Council) or the commoner. The amount of land fenced at a given time must not be bigger than 10% of the area of the common.

Another option would be to apply for section 38 consent which would enable the grazier to graze multiple sections in succession which would aid the establishment of the grassland sections.

3.2 Fencing Recommendations

- A cattle grid with horse and pedestrian gate could be installed on the road to the north of the common or alternatively, a farm gate with separate pedestrian gate should be installed
- At all times, the perimeter should be made secure by the adjacent landowners (e.g., cottages, Wessex water, Pitt Farm)
- Internal fence posts should be removed once the restoration works are completed
- The eastern dry-stone wall could be restored

4.0 TIMETABLE OF WORKS

The following tables provide an expected timetable of works which could be subject to change or further consultation with the Parish Council.

Table 2 Suggested Annual timetable for 1st year of works

Year 1 2021	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Apply for removal hawthorn on calcareous bank						■	■	■	■	■		
Apply to remove ash tree from western field						■	■	■	■	■		
Apply for removal of trees within wood pasture section						■	■	■	■	■		
Plant apple trees (western field)			■							■	■	■
Coppice hazel stools											■	■
Remove scrub from grassland bank										■	■	■
Remove ash tree adjacent to apple (west)										■	■	■
Scarify grassland and sow seed (western grassland)									■	■		
Re-seed eastern bank with seed mix			■	■					■	■		
Plant plugs on eastern bank			■	■								
Top or scythe eastern bank if required								■	■	■		

Table 3 *Second year timetable of works*

Year 2 2022	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mulch apple trees (western field)												
Thin woodland (wood pasture)												
Plant trees within wood pasture section												
Remove scrub from grassland bank												
Remove ash tree adjacent to apple (west)												
Scarify and reseed western grassland bank with yellow rattle if required												
Apply to remove hawthorns adjacent to oak tree												

Table 4 *Third year timetable of works*

Year 3 2023	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mulch apple trees (western field)												
Remove hawthorn adjacent to oak tree												
Plant hedgerow												

5.0 GRAZING PLAN

The aim of using the cattle is to graze the more vigorous grasses species which will provide opportunities for more delicate herb species to compete with the dominant species. This plan includes recommendations to graze the common at a low stocking rate using docile cows from the commoners closed herd.

The grazing will be managed by the commoner and local grazier Pitt Farm. Stocking rates will be low and will be managed to avoid causing any damage to the common such as overgrazing, browsing of new growth, and poaching of the ground. Recommendations regarding the grazing are provided below.

- Initially the cattle will be used from the commoner's existing herd which will be split before being put out to the common to graze
- Mature/docile stock will be used
- The stocking rate must not exceed 20 head of cows
- It is recommended to a graze with low stocking rate of less than 5 head of cows
- Temporary fencing could be used to protect features such as the stream or coppice stools if required

6.0 AMENITY AND ACCESS

One of the aims of these works is to increase the access to the site for the members of the public and for local residents. The restoration works will enable people to walk along the eastern boundary of the common to the top of the calcareous grassland bank. This section of the common has great amenity value and could provide the potential for picnics or an extension of the walk off the designated footpath. Additionally, the western section will include eight fruit trees which will provide suitable habitat for wildlife and apples for the local community. These restoration works are in line with the Greener Places strategy which is currently being prepared by South Gloucestershire council (South Gloucestershire Council, 2021). This report provides recommendations to increase access and to ensure the provision of amenity features.

- Provide signage such as a sign for the common and a free to roam sign
- Fence posts should be removed once the restoration works have been undertaken
- Provide a natural bench at the top of the grassland bank
- The cattle grid should have a gate for pedestrian traffic, or a farm gate should have a side gate for pedestrian use
- Foraging is encouraged and promoted
- Inform the public if there are cows on the common and to keep their dogs on the lead or under control
- Engage with local groups such as Sustainable Marshfield
- Works to improve the path in the southern woodland could be undertaken

7.0 MONITORING AND REMEDIAL MEASURES

The common will be monitored regularly by Martin Smith and the commoners exercising their right to graze. Changes will be made to the plan following consultation with the commoners, Martin Smith, and the Parish Council if necessary. If there are significant changes to this plan, it will be updated and reissued.

This plan includes the first three years of management of the common. However, the plan can be carried over as a long-term management plan if required.

It is recommended to appoint an arboriculturist to monitor the ash trees for ash die back disease. Trees should be retained unless they are unsafe.

Monitoring for wildlife could include reptile surveys and bat box surveys. Monitoring bats is a good way to monitor changes on site as they rely on insects for food. Although, there is no base level data, the restoration works should see an increase in bat species onsite following the recommended works.

8.0 FUNDING AND RESPONSIBILITIES

Table 5 includes a list of the tasks required and the funding mechanisms to achieve the restoration of the common. The project requires several up-front costs but aims to be sustainable with no money required for the ongoing management. Most of the works will be undertaken by the commoner (Pitt Farm) including grazing, the erection of fencing, and ongoing management of the restored features such as coppicing and scrub management. It was recommended that the Sustainable Marshfield, or other local groups, could provide volunteers to scythe, to help monitor the common, and help with planting (apple trees and plug plants).

Table 5 *list of actions, responsible persons, and funder of the tasks*

Task	Undertaken by	Funder	Estimated Costs
Tree Removal	Forestry Contractor (overseen by ecologist)	Parish Council	Recommended Forestry contractor is approx. £160 per day
Coppicing	Ecologist, Commoner, volunteers	N/A	None
Scarify and resow sections	Ecologist and Commoner	Parish Council	Seed mix from Emorsgate seeds is approx. £300
Creation of hedgerow	Ecologist and Commoner	Pitt farm	None
Fruit Tree Planting	Ecologist and Commoner, volunteers	Parish Council	Trees, stakes, guards are approx. £200. There are several funding opportunities (grants) to cover the costs that could be pursued or could be funded by Parish Council.
Trees within wood pasture section	Ecologist and Commoner, volunteers	Parish Council	<£50
Plug Plant Planting	Ecologist and Commoner, volunteers	Parish Council	£200
Perimeter Fencing	Adjacent landowners	Adjacent landowners	Responsibility of neighbouring landowners
Bat Boxes	Ecologist	Ecologist (funding)	None
Cattle Grids or gates	Parish Council	Parish Council	TBC
Signage and Infrastructure	Parish Council	Parish Council	TBC
Trough	Pitt Farm	Parish Council	TBC

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APPENDIX 1 SITE PHOTOS



Photo 1 woodland/scrub with no understorey



Photo 2 western grassland



Photo 3 remnant calcareous grassland



Photo 4 top of grassland bank

