

1/27/2021

Restoration Plan

Ringswell Common



Martin Smith

SUMMARY

The main aims of this plan are to increase habitat and overall biodiversity onsite, to increase the habitat suitability for wildlife, provide better access and amenity value for residents, and to engage with the farming community and promote sustainable farming.

This management plan includes recommendations for the restoration of the common, details on the ongoing management of the site, and a timetable of works. One of the main differences between this plan and the previous advisory note is the detail regarding the phasing of the scheme. This phasing will include several sections of temporary fencing to restrict the movement of cattle onsite which will aid in the restoration of the grassland section. The plan also advises on the responsibilities of the invested parties, estimates costs of the project, and provides recommendations on suitable monitoring.

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1.0 INTRODUCTION

This 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 (see figure 1).

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

This management plan follows Advice from the Avon Wildlife Trust in 2017 (See Appendix II) an Advisory Note for the Restoration of Ringswell Common (Smith, 2020) and includes an update following recommendations within a summary response on the Advisory Note by the Natural England Commons and Biodiversity Coordinator, Mathew Lipton, and the South Gloucestershire Tree Officer Simon Penfold.

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 into 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
- Enable cattle grazing across the site and allow cattle to browse within woodland compartments
- 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

The common is located within the Parish of Marshfield, within the Council of South Gloucestershire, and within the Cotswolds 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).

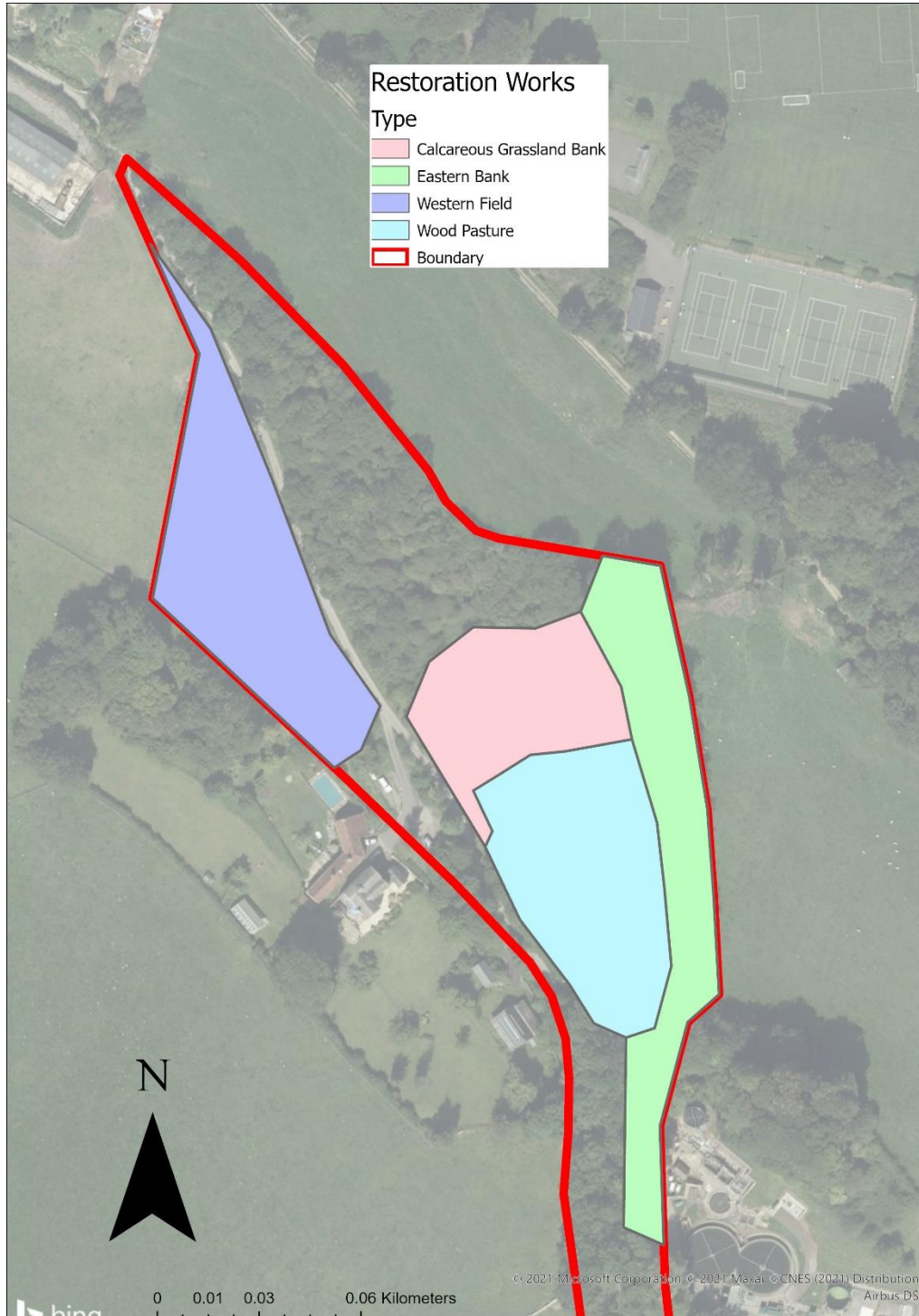
Figure 1 Ringswell Common at 1,500 scale



2.0 PROPOSED RESTORATION WORKS

The plan includes recommendations to restore a section of the remnant calcareous grassland bank to the east of the common, the restoration of the western grassland which will include the planting of fruit trees, reseeding with a local provenance wildflower mix, 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 species rich grassland mix following on the bank adjacent to the track within the centre of the site. This will include re-seeding an area of 450m². 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 50 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

- Scythe and remove clippings in July and aftermath graze in the summer/autumn
- Remove and compost grass clippings or dry out grass for hay
- Graze as per timetable (section 4) and then graze in the autumn and spring once the common infrastructure is completed
- Encourage some sections of bare ground and a diverse sward and prohibit the growth of dominated grasses to provide a diverse herbaceous sward

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

Two semi mature ash trees should be removed from the grassland bank. One is located adjacent to the existing apple tree and is shading it and has a significant wound on the main stem. The other ash tree is located on the grassland bank and will overshadow the grassland which has the potential to be species rich and diverse.

2.2 Calcareous Grassland

This management plan includes the restoration of a calcareous grassland bank within the centre of the site. This will include extending the remnant patches of grassland and will include the removal of a stand of bramble, blackthorn, and <10 hawthorn.

Restoration

- Remove approx. 5 hawthorns and bramble scrub from the bank and several from the top of the bank to provide trees such as the oak more space to grow and to provide access to the gate at the top (east) of the common
- Remove scrub in the winter, outside of the breeding bird season (March – September)
- Retain selected trees such as apple, oak, beech, and elm
- Coppice or pollard hazel to the east of the bank
- Seed the bank with the St Catherine's seed mixture EM18 and follow the recommendations within the grassland section 4.1.1

- Ensure that scrub is retained at the edges of the grassland and aim for rough scalloped edges

Management

- Encourage a diverse grassland sward and encourage sections of scrub adjacent to the bank and small sections on the bank
- Control excessive blackthorn and bramble encroachment on bank
- Reseed areas of bare ground with the St Catherine's seed mix (section 2.1.1)
- Graze with cattle in line with timetable (section 4) and then in the autumn and spring once the common infrastructure is in place

2.3 Wood Pasture

This section, just north of the sewage works will be thinned to allow light to penetrate the woodland floor which will increase the habitat's biodiversity and increase opportunities for wildlife.

Creation

- Remove approximately 50% of the hawthorn and semi-mature ash trees
- Encourage grasses to take hold within this section
- Retain some deadwood onsite by creating wood piles and dead hedging
- Coppice hazel and the damaged elm tree
- Use the brush from the coppice trees to prevent deer and cattle feeding on the regrowth

Management

- The grass may take a while to establish within this section and the cattle may have to be excluded until the roots take hold
- Top is grassland if it becomes rank and long
- This section will be opened to grazing after year three once the cattle grid or gates have been installed, this will allow the section to recover post coppice and will allow the ground flora to establish

2.4 Eastern bank

The eastern bank, adjacent to the beech trees, which was 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.

Creation

- 1000m² will be sown with the hedgerow mixture in the spring or autumn

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 (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.

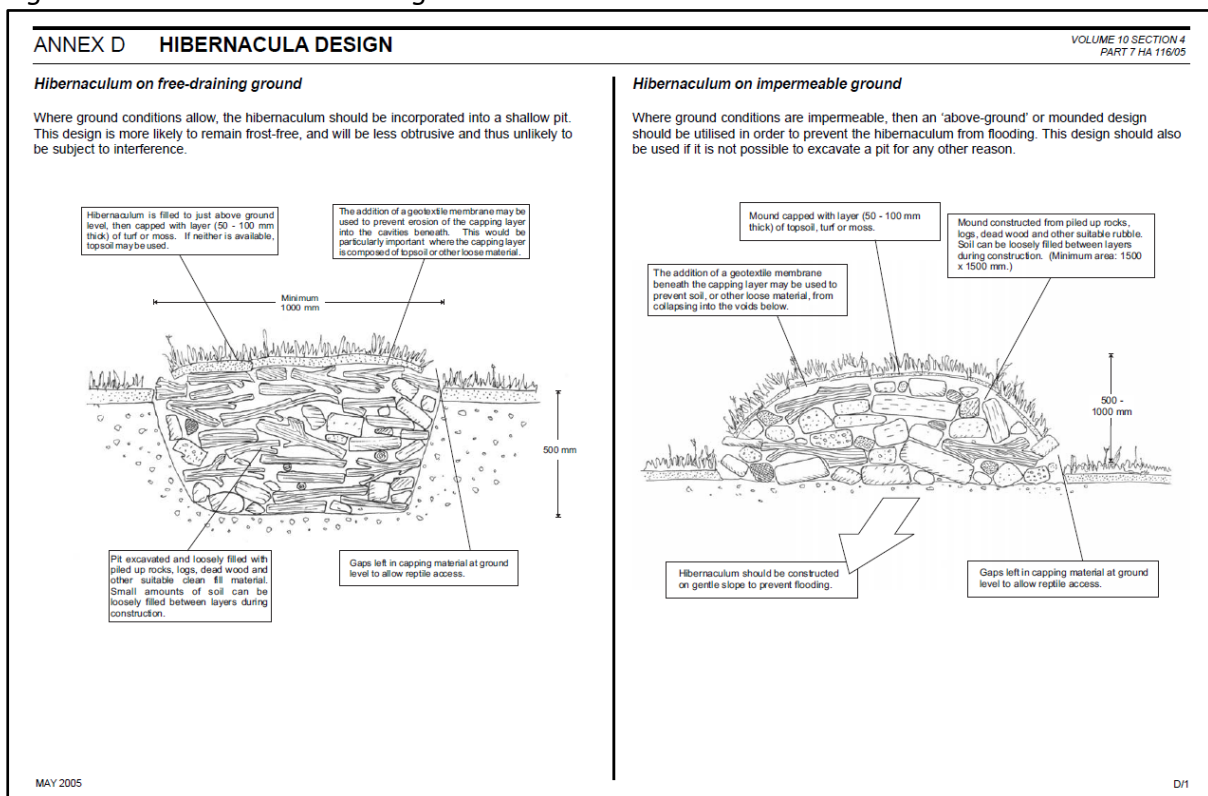
Restoration/Management

- 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 within the winter, outside of the nesting bird season (March – September)
- Keep fires and paths to a minimum to avoid impacts on wildlife
- All trees will be removed with hand tools (chainsaws) and the scrub will be removed with a hedge trimmer or tractor mounted flail
- 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 will be installed in the western field to provide water for the livestock
- Some wood and brash should be retained onsite as wildlife refugia this will provide hibernacula for reptiles and amphibians and will store carbon onsite
- two hibernacula will be created adjacent to the Doncombe Brook (figure 3)

Figure 3 Hibernacula design



3.0 FENCING AND PROTECTED AREAS

The restoration works to the common are expected to take several years to complete. Therefore, temporary fencing will be installed to restrict the movement of cattle on the site until the works are completed. This will ensure that neighbouring properties have time to prepare their external fencing, the council can put in place external gates/cattle grids, and the specific restoration works can be completed before the cattle can access the entire site.

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.

Temporary fencing will be used until the infrastructure on the common is in place to allow the cattle to roam freely across the common. Initially, the fencing will be erected using the existing posts to the west of the common (fence A, figure 4) and then the calcareous grassland bank will be fenced once the restoration works been undertaken on the bank (Fence B, Figure 4). Once the restoration works are completed the posts will be removed from the western section. The timing of works is described in more detail within section 4 of this report.

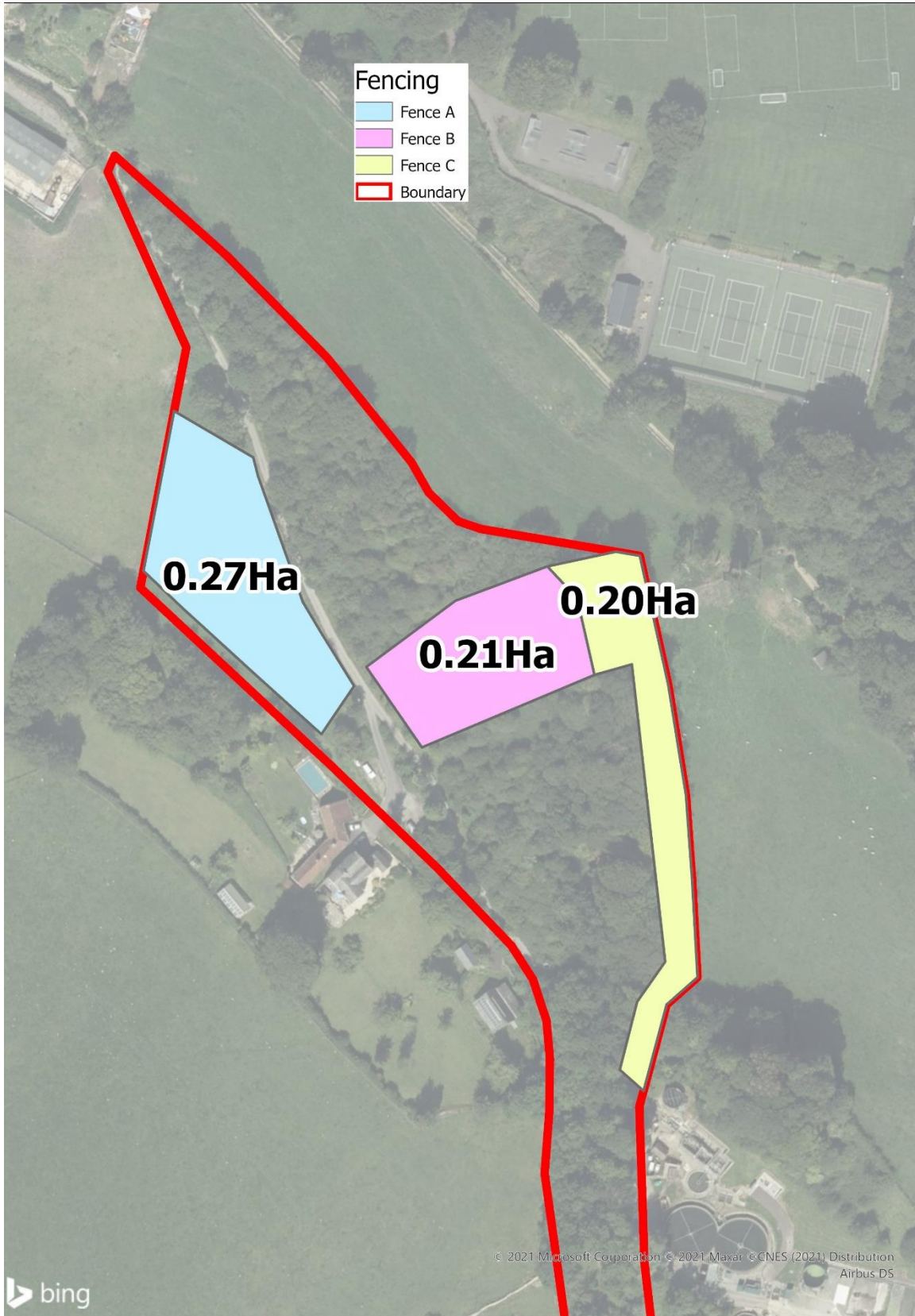
Table 1 Fencing area

Fencing location	Area Hectares	Percentage of common
Fence A (Year 1)	0.28	10%
Fence B (Year 2)	0.20	7.1%
Fence C (Year 3)	0.21	7.5%
Ringswell Common	2.79	

3.2 Fencing Recommendations

- A cattle grid with horse and pedestrian gate should be installed on the road to the north of the common
- at all times the perimeter should be made secure by the adjacent landowners (e.g. cottages, Wessex water, Pitt Farm)
- A row of thorny plants (hawthorn and blackthorn) could be planted adjacent to the houses adjacent to the common as a deterrent to cattle
- Areas of temporary electric fencing should include a gate to allow access into the section
- Once all the restoration works are completed all temporary fencing will be removed to allow cattle free access of the site

Figure 4 Fencing location



4.0 TIMETABLE OF WORKS

The works will be undertaken over several years. This will enable the specific infrastructure required to allow the cattle to graze and browse across the entire common to be completed, will decrease the impact on wildlife, will be more achievable, and will prevent grazing pressure from the cattle. The following tables provide an expected timetable of works which could be subject to change or further consultation with the Parish Council.

Table 2 Annual timetable for 1st year of works

Year 1	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Apply for removal hawthorn on calcareous bank												
Apply to remove two ash trees from western field												
Plant apple trees (western field)												
Coppice hazel stools (eastern bank and wood pasture)												
Clear bramble scrub (calcareous bank)												
Scarify grassland and sow seed (western grassland)												
Re-seed eastern bank with hedgerow mix												
Plant plug plants on western field bank												
Scythe western field grassland bank												
Top or scythe eastern bank												
Erect and remove Fence A												
Graze western section with cattle												
Apply for removal of trees within wood pasture section												

Table 3 *Second year timetable of works*

Year 2	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mulch apple trees (western field)	■											
Thin woodland (wood pasture)	■	■										
Coppice any remaining hazel stools	■	■										
Scythe western field grassland bank							■					
Erect and remove Fence C							■				■	
Graze eastern bank								■	■	■		
Apply to remove hawthorn on calcareous grassland bank											■	■
Scarify and reseed western grassland bank with yellow rattle if required								■	■	■		

Table 4 *Third year timetable of works*

Year 3	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mulch apple trees (western field)	■											
Remove hawthorn from calcareous grassland bank	■	■										
sow seed on calcareous grassland bank and plant plugs			■	■								
Erect and remove fence C							■				■	
Graze grassland bank with cattle								■	■	■		
Plant hedgerow										■	■	■

5.0 GRAZING PLAN

The aim of using the cattle is to graze the grasses and more vigorous species which will provide opportunities for more delicate herb species to compete with the dominant grasses. This plan includes recommendations to graze the common at a low stocking rate using docile cattle from the commoners closed herd. Initially, there will be the use of temporary fencing until the infrastructure of the common is implemented. However, the aim of the project would be to have a small herd which can be used exclusively for the common and that could be rotated with other sections of land within the Parish.

The grazing will be managed by the commoner and local grazier Martyn Plummer. 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:

- 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 cattle within the time as stated common as per the timetable within the previous section, however, the grazing period may be shorter dependant on the number of cows used
- The stocking rate must be 20 or fewer but would preferably be 10 or fewer
- Temporary fencing should 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
- Remove the fence posts once the initial restoration works have been undertaken (see section 4)
- Provide a natural bench at the top of the grassland bank
- Provide a gate adjacent to the cattle grid so disabled people can access the common
- Foraging is encouraged
- Inform the public if there are cows on the common and to keep their dogs on the lead or under control

7.0 MONITORING AND REMEDIAL MEASURES

The common will be monitored regularly and changes will be made to the plan if required. 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, it is a long-term plan and can be carried over as a long-term management plan if required.

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 (Martyn Plummer) 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 could provide volunteers to scythe and help with monitoring common.

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 £160 per day. Two days of work estimated in year 2 £320 total
Coppicing	Ecologist and Commoner	Pitt Farm	N/A
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	Funded and planted by commoner
Fruit Tree Planting	Ecologist and Commoner	Parish Council	Trees, stakes, guards are approx. £200. There are several funding opportunities to cover the costs. They must be applied for by community groups i.e. Sustainable Marshfield
Plug Plant Planting	Ecologist and Commoner	Parish Council	£100
Temporary Internal Fencing	Commoner	Pitt farm	Arranged by commoner
Perimeter Fencing	Adjacent landowners	Adjacent landowners	Responsibility of neighbouring landowners
Cattle Grids	Parish Council	Parish Council	Suggest enquiring with Mathew Lipton for funding
Signage and Infrastructure	Parish Council	Parish Council	Suggest enquiring with Mathew Lipton for funding

REFERENCES

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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

APPENDIX II ADVICE FROM THE AVON WILDLIFE TRUST 2017

This section includes advice sought from Joe McSorley at the Avon Wildlife Trust for the restoration of the common by the Parish Council in 2017. The advice closely aligns to this management plan provided.

8.1.1 Letter from Avon Wildlife Trust

Dense secondary growth Woodland with on steep slopes with wildflower rich scallops and evidence of grassland history (e.g., anthills in the woodland). Some mature specimen trees and an open grassland area.

The mature area of woodland could be improved with some thinning and tidying to provide better access and improved views of the specimen trees for visitors.

The dense woodland would benefit from some thinning and clearance work to open up flight corridors for bats, birds and insects. Bringing some light into glades created in the woodland and along pathways would encourage the growth of native woodland wildflowers which may be surviving in some areas. Providing an access route through the woodland for the local villagers would also provide a more aesthetically pleasing access to the common.

The scallops that appear on the lower slopes of the dense woodland alongside the road are species rich and should be expanded were possible by pushing back the woodland edge. This would then require an annual cut and removal of a small amount of arising.

The grassland within the end woodland drastically needs a cut to try to recover some wildflower species richness and the extent of the grassland should be expanded by clearing back shrubs and scrub that has encroach from the woodland. It would be desirable to graze this parcel to continue its improvement but this may not be possible so an annual hay cut (probably by hand would be required).

The woodland itself in the higher areas has extensive scrub encroachment on public paths and could do with extensive thinning and clearance work over the winter. Access is limited and there is some evidence of steps and revetments for the use of the public which could gradually be replaced and extended to make access to the woodland more amenable