

# Marshfield LNAP

## Introduction

Marshfield Parish Council in partnership with South Gloucestershire Council has recognised the importance of taking steps to address the ecological crisis our world is facing.

Marshfield Parish Council made a declaration in 2020 recognising the climate and ecological emergency we are facing. A Local Nature Action Plan is being drawn up to help us to work together as a community with South Gloucestershire Council to tackle the decline in biodiversity.

This plan will tie into Local Nature Recovery Strategies (LNRs) and will provide the underpinning framework for the Nature Recovery Network

The Prime Minister has committed to protect 30% of UK land for nature by 2030 (30 by 30),

Despite being only one quarter of land cover, protected landscapes of which AONB's are one, are home to nearly half of all priority habitats in England, including many of our most important sites for nature. Achieving 30 by 30 will rely on improvements in how these areas are protected and managed for nature recovery, as set out in this response to the review and the Nature Recovery Green Paper.

This action plan is led by Marshfield Parish Council with support from Sustainable Marshfield and local residents.

There are three different foci to this plan. This includes existing projects within Marshfield for which we can add to our influence, new projects for which we can provide actions for, and projects or schemes which we cannot directly influence. Therefore, this plan does prescribe actions where applicable but realises its limitations as there are extensive areas of land where we will have no direct influence. However, we believe that outline recommendations, the provision of good practice guidelines, and conservation-based evidence can influence private landowners large and small to also share our vision.

## Key Objectives

- *improve how we manage and connect public open spaces and strengthen green corridors;*
- *support and enhance local initiatives for biodiversity*
- *provide vital green space for nature to thrive in our communities;*
- *create more attractive and healthier places to live for residents of the present and future;*
- *plan to respond the effects of climate change, taking actions to counter environmental harm on a local, national, and global level.*

## Maps

- Map displaying the land ownership in Marshfield. What can we influence?
- Map showing important habitat features
- Map showing schemes and opportunities

*Figure 1 designated statutory wildlife sites*

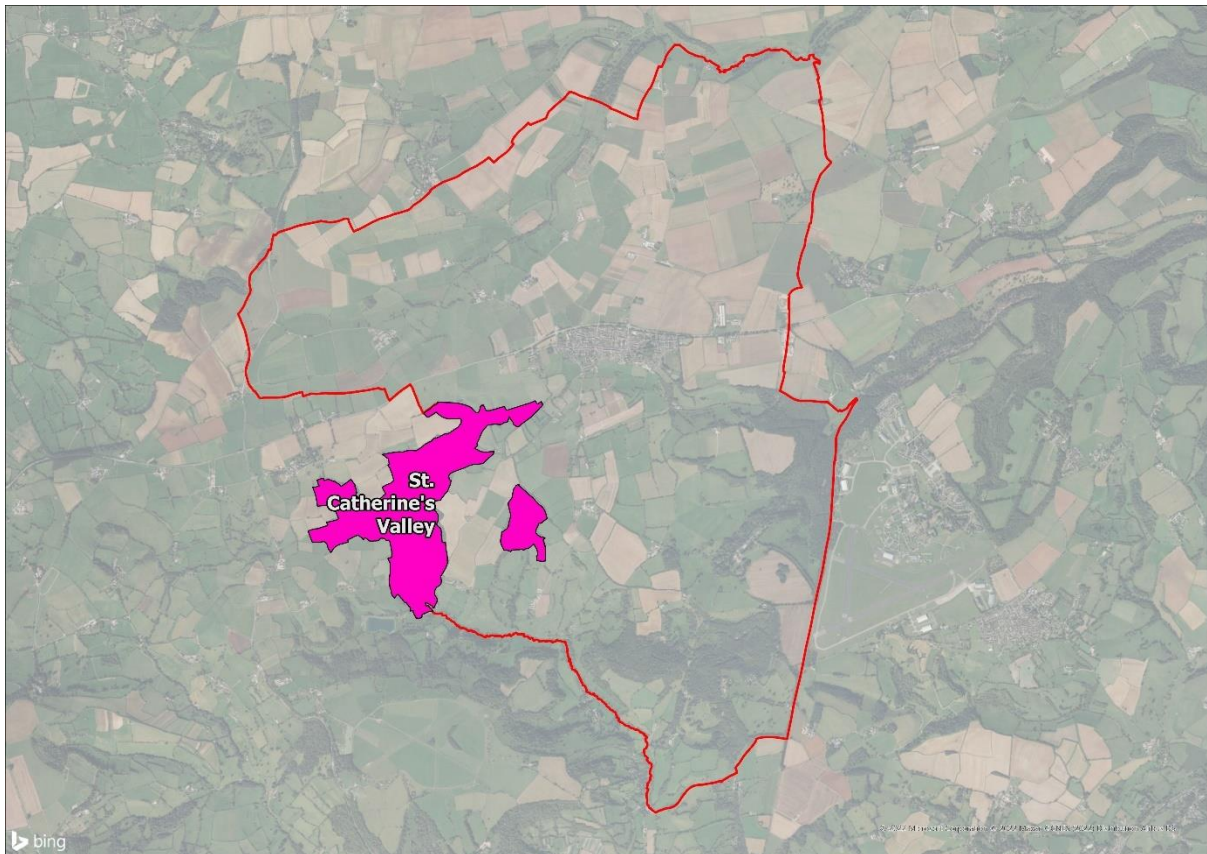
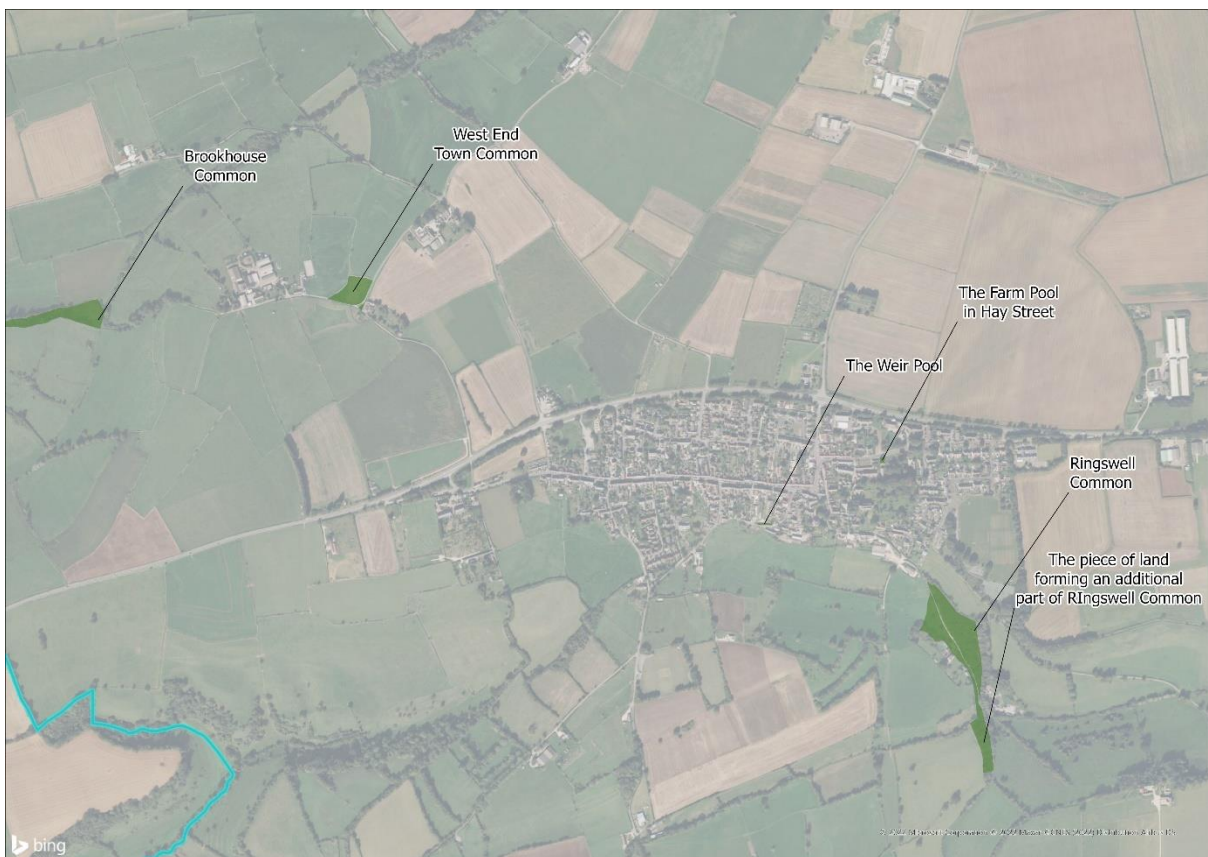
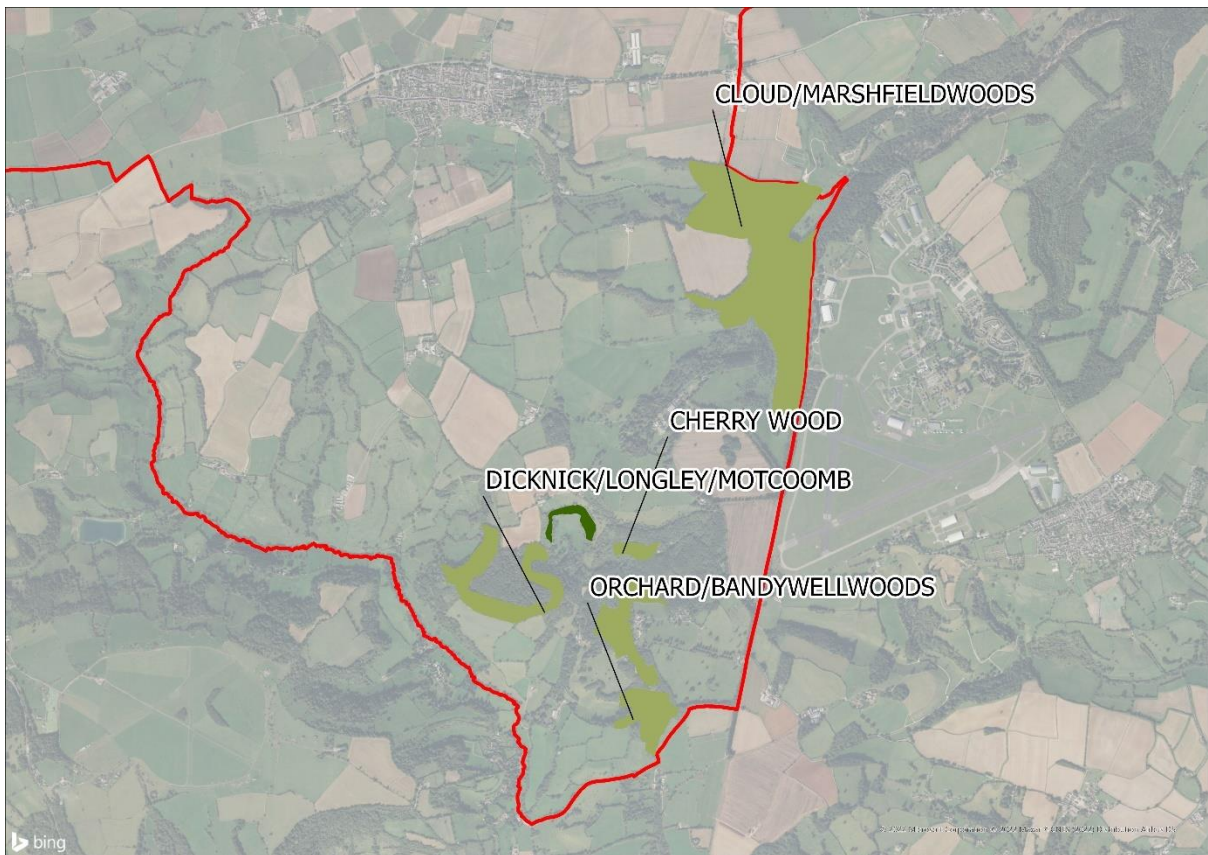


Figure 2 Ancient semi-Natural Woodland





## Existing Projects

### Churchyard

St Mary the Virgin is a member of the Eco-Church scheme. The churchyard is an important part of the church's work for environmental sustainability. The Churchyard Management Plan (adopted 2021) includes the following in its churchyard objectives:

'To adopt key sustainability principles in all we do, including to:

- maintain and enrich its biodiversity value
- plant native plant species of local provenance
- achieve a net zero carbon footprint for churchyard management e.g., no bonfires, hand tools in preference to power tools, electric tools in preference to petrol tools, no importing of soil/compost
- minimise the use of chemicals e.g., no pesticides, slug pellets, chemical fertilizers
- achieve Zero Waste from the churchyard
- adopt a 'no-dig' approach in areas planted with ornamental shrubs, perennials, and annual plants.'

### Site description

The churchyard sits with open countryside on its southern edge. Local nature conservation designations come up to the village from both the east and the west at this point

The eastern, western, and northern boundaries are onto surrounding gardens which offer opportunities for species exchange. The area immediately to the northeast has a stand of native trees, many protected by tree preservation orders. It is rich in birds and other wildlife.

Within the churchyard, the area immediately around the church is largely ‘gardened’. The remainder is dominated by grassland, intermixed with trees and some shrubs. The former grass regime (cut grass left to lie) has led to significant enrichment of the thin calcareous soils and consequent replacement of fine calcareous grasses by coarser, more aggressive ones. These have strong root systems and lead to a reduction in native wildflowers. Remnants of typical calcareous grassland flowers and grasses can still be identified, particularly in the south, but are sparse.

Trees and shrubs in the churchyard are limited in variety. The management plan identified

- A number of trees/shrubs in need of remedial works to secure their future health and growth habit. This has been done.
- Weak representation of native trees/shrubs, with consequent impact on biodiversity. This will be tackled through incremental planting of natives as circumstances allow.
- Our two most significant native deciduous trees are of advanced age, one of them also being vulnerable to infection by the ash-die back endemic in our area. An application to plant successor trees is currently with the Diocese.

The churchyard provides habitats for a wide range of animal life including bats, a substantial variety of birds, butterflies and moths, toads, hedgehogs, slow worms

#### Current activity in the churchyard

Apart from grass cutting, most of the churchyard had been left unchanged for decades. As a result of changes in the last two years much is now managed with wildlife in mind. We manage meadow areas to reduce fertility with the ultimate aim of enriching the range of native wildflowers, compost all green waste on site, ban chemicals, have created of an insect hedge, record species (plants, moths, bats, birds, mammals, amphibians) and are developing a ‘cutting patch’ so flower arrangers in church can make use of organically grown, natural flowers.

We have begun the work, but there is still a lot to do. The churchyard has great potential. Our management plan identified grassland management and diversification of tree/shrub species as two key areas for action. Review of our activities for the LNAP suggests that these should be extended to include more action for wildlife (feeding, breeding and shelter).

Location	Aims	Proposed action	Timing
Grassland	Reduce soil fertility Increase botanical diversity Manage potentially invasive species	- Twice yearly cut; remove clippings  - Sow yellow rattle  - Possible use of plug plants (local provenance)  Cut flower heads before seeds set. Dig out expanding root systems.	Annually, after flower seeds set and before grass seeds fall.  2022 late summer sow yellow rattle in south only. Sow yellow rattle in north only when coarse grasses have diminished in strength 2024 on?  Annually
Shrub band in south east	Increase diversity of trees/shrubs	- Review elders; aim to renovate.	Spring 2022  Spring 2022

Location	Aims	Proposed action	Timing
churtyard		<ul style="list-style-type: none"> <li>- Identify native saplings and protect from grass cutting</li> <li>- Remove cypress</li> <li>- Cut back laurel</li> <li>- Plant field maple</li> <li>- Plant native shrubs* for coppicing; include species with berries</li> </ul>	<p>Late summer 2022</p> <p>Any time?</p> <p>Autumn 2022</p> <p>Autumn 2022</p>
West wall in south churchyard (wall faces east)	<p>Protect/provide habitats for insects, birds and small mammals.</p> <p>Encourage bird nesting.</p> <p>Increase diversity of shrubs</p>	<ul style="list-style-type: none"> <li>- Retain nettles mixed with brambles and define their area</li> <li>- Prevent outward expansion beyond designated area to protect grassland and access to tombs</li> <li>- Create foxglove patch</li> <li>- Use east facing walls for bird boxes</li> <li>- Remove some nitidia bushes</li> <li>- Plant one or more buddleias</li> <li>- Plant native shrubs*</li> </ul>	<p>Spring 2022</p> <p>Annually</p> <p>Spring 2022</p> <p>???</p> <p>Spring 2022</p> <p>Spring 2022</p> <p>Autumn 2023</p>
East wall in north churchyard (wall faces west)	<p>Protect/provide habitats for insects, birds and small mammals.</p>	<ul style="list-style-type: none"> <li>- Retain nettles mixed with brambles and define area</li> <li>- Prevent outward expansion beyond designated areas to protect grassland</li> <li>- Manage insect hedge and wood piles to maintain habitats</li> <li>- Plant native shrubs* to enhance mix in trees to northeast</li> <li>- install bee hotels with south/west facing aspect</li> <li>- retain composting</li> </ul>	<p>Spring 2022</p> <p>Annually</p> <p>Annually</p> <p>2024 on</p> <p>Spring 2023???</p> <p>On-going</p>
West walls in north churchyard	<p>Protect/provide habitats for insects, birds and small mammals.</p>	<ul style="list-style-type: none"> <li>- Retain nettles mixed with brambles and define area</li> </ul>	<p>Spring 2022</p> <p>Spring 2022</p>

Location	Aims	Proposed action	Timing
(wall faces east)	Create opportunities for bird boxes	<ul style="list-style-type: none"> <li>- Prevent outward expansion beyond designated areas to protect grassland</li> <li>- Create 'messy pile' (compost material from cutting patch/small branches/ cut long grass/ autumn leaves) with good access for wildlife</li> <li>- Install bird boxes</li> <li>- Plant native shrubs*</li> <li>- retain composting</li> </ul>	<ul style="list-style-type: none"> <li>Summer 2022</li> <li>2024 on</li> <li>2024 on</li> <li>On-going</li> </ul>
'Gardened areas'	Provide nectar for bees and other insects	<ul style="list-style-type: none"> <li>- Diversify plant mix</li> </ul>	2022 on

\* Shrubs to be selected from blackthorn, hawthorn, elder, hazel, crab apple, spindle, wayfaring tree, guelder rose.....

We have begun the work, but there is still a lot to do. The churchyard has great potential. Our management plan identified grassland management and diversification of tree/shrub species as two key areas for action. Review of our activities for the LNAP suggests that these should be extended to include more action for wildlife (feeding, breeding and shelter).

#### Future projects

- Strengthen connectivity between churchyard and the wider environment
- eight-bin composting system to achieve zero waste from churchyard (and soil conditioner for borders)
- Dry hedge and wood piles for insects and small mammals
- No chemicals cut flower patch to encourage insects and sustainable floristry
- wildflower seeding in selected areas to increase biodiversity
- change to meadow cutting regime including single summer cut with increasing use if scything
- network of cut grass paths to encourage community access
- wildlife monitoring programme
- explore installation of bird and bat boxes, swift hotel, hedgehog homes
- planting more native shrubs and trees

#### Village Verges

Many roadside areas are in poor botanical condition, with high fertility levels that cause a limited range of grasses and plants to dominate and outcompete slower growing herbaceous

flowers. There has been a significant decline in grassland meadows within the countryside which has seen a subsequent reduction in biodiversity.

In 2019, ten pilot verges having different needs and wildlife potential were identified after talking with SGC, the Parish Council, landowners, and adjoining residents: Sheepfair Lane, Weir Pool, Little End, St Mary's churchyard, Community Centre, Hayfield (west side), High Street (opposite Alms Houses), Home Barns, Allotments and Ayford Lane.

In some of the pilot verges wildflower seeds, wild bulbs and wild plug plants were used. However, the main aim is to conduct carefully timed cutting (with removal and composting of arisings) to reduce dominant grasses while enabling existing wild plants to set seed and gradually become more abundant. This is likely to take several years of consistent effort

The pilots were chosen for both variety and amenity value and identified by Blue Heart stakes (made from recycled materials and inspired by the BLUE campaign launched in 2014 in Chipping Sodbury) to help raise awareness and interest. Most are within the village but there is also a rural verge along Ayford Lane, a popular walking route.

Each verge has its own care plan (templates were devised for this purpose to be held by the management plan coordinator) with the aim of monitoring the verges to see how they progress, adjusting the plans as needed. The Parish Council voted to implement an overall verges management plan in September 2020 (updated March 2021) – copy available.

In 2020 South Gloucestershire began supporting the national campaign promoted by Plantlife called 'No Mow May' by reducing their cutting routes wherever it is safe to do so. The Parish Council and Marshfield Mowers also agreed not to mow Blue Heart areas during the spring/summer season. Laminated 'No Mow May' signs were added to the Hearts.

An informal scything team supported by the Cotswold Wardens also took part in summer/autumn verge mowing schedules. Composting systems at the Community Centre and at St Mary's church were used for some of the arisings which need to be removed over coming years in order to reduce the fertility of these areas and encourage native regrowth.

#### Actions:

- Establishing clear cutting schedules and making sure all those involved are aware of them.
- Training more volunteers for grass scything (good exercise!); also need raking and composting volunteers.
- Monitoring progress of verges and annual recording of vegetation.
- Appropriate local wildflower seed collection for reseeding verges or establishing new ones (the Emorsgate St Catherine's mix can also be used).
- In addition to the Blue Heart signs, it may be helpful in future to erect a noticeboard showing which native species of plants and wildlife might be spotted through the seasons in the area.
- Residents who request advice on starting and caring for their own wildflower verges should be supported. Wildflower identification walks could also promote interest.



- There is a large patch of grass/verge within Fairfield Close that could make a wildflower meadow if surrounding residents were interested.
- The front lawn at the doctor’s surgery could showcase wildflowers/grasses.

## Designated Sites and Common Land

The registered commons in the Marshfield area are provided below:

Register No.	Name	Area (acres)	Designation
G/CL74	Brookhouse Common	1.14	Common and SNCI
G/CL75	West End Town Common	1.15	Common
G/CL76	The Weir Pool	0.02	Common
G/CL77	The Farm Pool	0.07	Common
G/CL78	Ringswell Common	3.62	Common and SNCI
G/CL111	Ringswell Common	1.31	Common and SNCI

### Ringswell Common

Early in 2020 concerns were raised about tree removal there and this led to the opportunity of developing (between Pitt Farm and MPC) a management plan 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’.*

Several items of the Common Restoration plan have already been undertaken. This includes the reseeded of the grassland bank on the eastern boundary of the common, the planting of six apple trees, and the installation of a cattle grid to initiate conservation grazing on the common.

Future actions for Ringswell Common are provided below. The majority of the actions are provided within the current management plan. However, several other actions are provided within this action plan.

- Replant a mix of native trees to replace ash trees which have been identified as having ash die back. Trees should include species such as oak, hazel, spindle, rose guelder, service tree, and holly.
- Updated surveys of the common land areas would be valuable (including UKHab surveys) for baseline and special interest studies.

- Plant herbaceous plants adjacent to the brook and on the northern section of the western side of the common. Plants to include purple loosestrife, hemp agrimony, and meadowsweet.
- Scarify and reseed the grassland banks on the western side of the common with the St Catherine's mix from Emorsgate seeds or from a suitable source of local green hay.

Future ideas for the commons could include: a community 'forest' garden (fruit and nut trees alongside other native food plants) at West End Town Common; protection/ restoration of the biodiversity along the public walkway through Brookhouse Common.

### Westend Town Common

West Town Common is located within the north-east of the Parish of Marshfield. The common is comprised of neutral grassland. The grassland is sheep grazed and is dominated by grasses with low herb cover. Actions for West Town Common are provided below:

- Collect baseline information for the common which includes photographs and a full botanical species list
- Liaise with the active commoners of the common and discuss any ideas they may have to improve the common for biodiversity
- Provide a plan for the long-term management of the common
- There is scope to plant a traditional orchard on the common

### Brookhouse Common

Brookhouse Common is located to the north-west of the Parish of Marshfield. The Common is comprised of neutral rank grassland, scrub, woodland, a brook, and a flush which feeds into a pond which has infilled. Actions for the common are provided below:

- Collect baseline information for the common which includes photographs and a full botanical species list
- Liaise with the active commoners of the common and discuss any ideas they may have to improve the common for biodiversity
- Provide a plan for the long-term management of the common
- Ensure that seasonal, low-density grazing is undertaken on the common
- Provide support to fence the common and repair walls where possible
- Restore the pond at the southern end of the common

### Weir Pool

The Weir Pool is an historic cart pull located to the south of the town of Marshfield. There is an ongoing management plan and planting plan for the pool. Actions for the pull include:

- Plant up the pool with riparian vegetation such as flag iris, marsh marigold, and water plantain, and native lilies

- Allow native plant species to colonise the pool naturally
- Plant the pool edges with pond edge grass mixtures such as the Emorsgate EP1 seed mix
- Plant marginal plants such as purple loosestrife, meadow sweet, and hemp agrimony
- Create a hibernaculum on the western bank to provide habitat for overwintering reptiles and amphibians
- Because of the form of the pool management will include the removal of dominant vegetation to ensure that there are areas of clear water for invertebrates

### Farm Pool

The Farm Pond is located to the east of the town of Marshfield. The pond is unshaded, with a small margin of aquatic vegetation, and short mown amenity grassland adjacent. Great crested newts are known to be present within the pond. There is an ongoing management plan for the pond which includes the removal of vegetation on an annual basis. Further actions are provided below:

- Provide areas of longer grass within proximity of the pond to provide terrestrial habitat for amphibians
- Create refugia for hibernating amphibians
- There could be scope to provide bird boxes within the trees or wall adjacent to the pond

### Conservation Grazing

Conservation grazing is a widespread method of grassland management and conservation bodies regularly use grazers to improve and maintain the sites they manage for biodiversity (for example, the National Trust use Belted Galloway cattle to manage Cotswold grassland).

The low-intensity grazing provided by the cattle enables a shift from grass to herbs, with plants such as marjoram, thyme, vetches and rare orchids appearing. This results in an increase in butterflies and beetles, creating good habitat for wild flora and fauna.

A good example of 'unimproved' grassland can be seen at nearby Bannerdown Common, which is also a butterfly reserve. Many pyramidal and common-spotted orchids flower can be seen there, along with agrimony, St John's wort and yellow rattle.

Conservation grazing is only effective in restoring biodiversity if it uses the right herbivore species at the right density at the right time. Native and rare breeds of herbivores are best due to their hardiness and ability to cope well with unimproved grassland.

Often a combination of different species (cattle, ponies, and pigs) are used. Conservation grazing is also useful for management of neglected shrubland and woodland (swine are best under these conditions).

Farmers around the village may be interested in exploring conservation grazing methods in order to improve the biodiversity, amenity, and productive value of their land. Hedge and woodland restoration could be an effective part of this effort.

More information:

National Trust – [Conservation Grazing](#)

The Woodland Trust – [Conservation Grazing in Woodland Management, 2012](#)

## Allotments

Marshfield Allotments are located to the north of Marshfield. The site is bordered by farmland to the east, south, and west, and a water reservoir with unimproved grassland to the north. The site measures a little less than a hectare and is enclosed by a mixed hedgerow (dominated by hawthorn). There are currently almost 60 individual plots divided by grass paths.

On a recent count there were over fifty trees on site not including those in the hedgerow, about a half of these are fruit trees. There are a great many fruit bushes too. The land is on a 95-year lease allowing the allotment committee a deal of autonomy in decision making. It is written into the MAA constitution that pesticides and herbicides are not allowed. A patch to the west of the land was given over to wildflowers several years ago and this was added to with trees for pollinators last year. There is a plan and funding put aside to make a pond in this area later in the year. A composting toilet was put in some years ago and every two years MAA funds a composting toilet in a third world country in a Toilet Twinning scheme. Collecting water is encouraged as well as making compost. Several plotters use the “No Dig” method of cultivation and sheep fleece was used as a mulch by one.

## Wildlife

The allotments contain a diverse mix of habitats which include nectar rich flowers, fruit trees, grassland, bare ground, compost bins, and vegetable beds. The eastern hedgerow of the allotments provides habitat for farmland birds species present within the land surrounding the allotments. This includes corn bunting, yellow hammer, linnets, and starlings. The allotment provides habitat for small mammals such as rats, bank voles, field voles, wood mouse, common and pygmy shrews. Hedgehogs have also been recorded at the allotments. The allotment provides suitable habitat for a range of invertebrates including common species of butterfly, honeybees, solitary bees, and various bumble bees.

## Actions

- The Parish Council would encourage the allotment committee to ensure that biodiversity and sustainability forms one of the aims of the allotment
- A management plan should be created for the boundary hedgerows which include rotation trimming of the hedgerows and hedgerow rejuvenation such as coppicing or laying sections of the hedgerow

- Create ponds on sharded areas of the allotment to provide habitat for amphibians, reptiles, and habitat for riparian insects which, in turn, will provide a food source for a range of other species
- Are there slow worms on the allotment? Artificial refugia surveys could be undertaken to see if reptiles are present on site. Measure to encourage reptiles into the allotment could include the provision of areas of longer grassland at the boundaries of the allotment.
- Set up a seed swap day with the aim of promoting heritage varieties of seed
- Encourage the use of green manures to cover vegetable beds instead of plastic sheeting
- Dead wood piles should be encouraged
- A notice board could be created on the shipping container which could be used to list species found at the allotments.

## Future Projects

### Swifts

Swifts declined by 58% between 1969-2018 and as such they are now red listed on the RSPB's Birds of Conservation Concern. Population declines are happening across their natural range. Many factors contribute to this – notably climate change, the widespread use of insecticides, and building renovations leading to loss of nesting sites.

Swifts nest in buildings, often in small colonies. Nesting is the only time they land. The remainder of their lives is on the wing. At nesting time, they travel many miles daily to catch food for their young.

The UK is important to long term swift survival as this is a place where they breed. Marshfield has existing swift visitors which makes it easier for us to take actions to help maintain them as summer visitors.

### House sparrows

Lovely, chattering and sociable house sparrows are part of everyday life. But their population decline has been severe. Numbers in rural areas have halved since the mid-1970s, and the situation is worse in cities and towns. The humble house sparrow is now on the Red List as a species of conservation concern. Again, the causes are complex, but in rural areas the lack of invertebrate prey is thought to be a significant factor along with changed farming practices, particularly the loss of winter stubble and more efficient grain storage.

Within the village we have bushes and shrubs which are safe havens for sparrows, farmyards which provide nesting habitat, and a mosaic of gardens and open space to provide habitat for sparrows. Below are recommendations to provide roosting and additional foraging opportunities for both swifts and house sparrows.

Project	Location	Aims	Proposed action	Timing
Swift survey	Whole village	To establish where/ what numbers of	- Find a leader/volunteers	Start now

Project	Location	Aims	Proposed action	Timing
		swifts are visiting during nesting season	<ul style="list-style-type: none"> <li>- Establish methodology (good advice is available RSPB)</li> <li>- Review results</li> <li>- Send to Bristol Regional Environmental Records Centre and Swift Mapper (RSPB)</li> </ul>	Survey May to August
Food supply for swifts	Gardens, open spaces, allotments, farmland	To promote reduction in use of insecticides	<ul style="list-style-type: none"> <li>- Decide on best ways to communicate with the various partners</li> <li>- carry out as part of awareness raising for implementation of LNAP</li> </ul>	asap
Swift hotel (SH)	Church tower	To provide nesting opportunities as unrestored buildings disappear from the village/ surrounding countryside	<ul style="list-style-type: none"> <li>- village awareness raising</li> <li>- contact churches that have successfully implemented SHs for advice</li> <li>- contact Dick Newell (much relevant experience)</li> <li>- discuss a proposal for church tower with vicar and PCC</li> <li>- identify other potential locations in village and surrounding areas and have discussions with owners</li> <li>- get consents from SGC and diocesan authorities for church tower</li> <li>- fund raise if necessary</li> <li>- arrange building and installation</li> </ul>	Asap  Aim to complete spring 2023?
Permanent swift bricks	Buildings with eaves above 5m	<p>To provide nesting opportunities (not as good as hotels)</p> <p>To provide nesting opportunities for other small birds (see discussion on house sparrows)</p>	<ul style="list-style-type: none"> <li>- village awareness raising</li> <li>- survey village for potential locations</li> <li>- assemble relevant info and advice and discuss with owners</li> <li>- ask MPC to include request for swift bricks in all new builds and conversions</li> <li>- discuss with SGC inclusion of relevant advice in their planning and nature conservation guidance</li> </ul>	When possible
Swift nest boxes	Buildings of height above 5m	To provide nesting opportunities (not as good as hotels)	<ul style="list-style-type: none"> <li>- village awareness raising</li> <li>- survey village for potential locations</li> <li>- assemble relevant info and advice and discuss with owners</li> </ul>	When possible
House sparrow feeding	Homes and gardens	To provide a good supply of food through the winter.	- village awareness raising re information and advice on good practice re bird feeding in winter and early spring	When possible

Project	Location	Aims	Proposed action	Timing
		To provide supplementary feeding through breeding season	- village awareness raising re specific benefits of providing meal worms which have been shown to lead to greater success in raising new generations of sparrows	
Permanent swift bricks for house sparrows/ other small birds	Under eaves or among vegetation on east or north facing walls	To provide nesting sites for small bird species. Do not need to be located as high as for swifts	- village awareness raising - survey village for potential locations - assemble relevant info and advice and discuss with owners	When possible

## Hedgehogs

Hedgehog numbers in the UK are in decline. Across the country the hedgehog population has dropped by nearly half since the year 2000 and this declining trend is continuing. Experts now estimate that there are fewer than 1 million hedgehogs left in the United Kingdom.

This dramatic loss proves that even the most iconic of British species is not immune to environmental changes or human pressures and reminds us all of the fragility of our local wildlife and the need to protect it.

Rural landscapes are becoming more fragmented and closed off, and road networks and urban sites are cutting off connections between key habitats. UK landscapes have become less diverse with removal of woodland and hedgerows and the use of pesticides are having detrimental impacts on a range of species.

Hedgehogs occupy an important role in their ecosystems. They are seen as an “indicator” species, or a sign that the natural environment is in a state of good health. The presence of hedgehogs in rural areas can indicate that there is a good abundance of ground dwelling invertebrates (the hedgehog’s natural prey) which itself indicates a varied habitat with good soil quality

Hedgehogs are a mobile species, typically moving between 1-2 km in a single night, with large home ranges between 10-50 ha. The successful movement of hedgehogs across their landscape can be associated with good connectivity between green spaces.

Conservation actions –

### Hedgehog Highways

As hedgehogs are a mobile species reducing the barriers to their mobility is key. Creating areas of connectivity by cutting small holes in the bottom of garden fences 12cm x 12cm, will allow them to move freely around their home ranges. (See Hedgehog Highways).

Ensuring hedgehogs can pass freely through your garden is the most important thing you can do to help them.

<https://www.hedgehogstreet.org/help-hedgehogs/link-your-garden/>

### Hedgehog wardens

Another proposal is to ask village participants to become hedgehog highway wardens, these volunteers will monitor or 'adopt' a stretch of road or green space near them, to report any local hedgehog sightings, if there is a specific area with many sightings over a short time period, perhaps a small sign can be put in place to alert drivers to the presence of hedgehogs in that area and thus avoid any collisions with cars.

### Hedgehog houses

Hedgehogs need a dry, safe place to raise young and hibernate, and a hedgehog house is the perfect habitat. By encouraging local residents to build or provide a place for hedgehogs to hibernate in their gardens, it will not only create habitat for the hedgehogs but also generate ownership and pride by participants.

### Stop using slug pellets

Conventional slug pellets contain metaldehyde, which is lethal to hedgehogs.

Encouraging the use of wildlife-friendly slug repellent is important, but they still take slugs and snails out of the food chain. Hedgehogs are actually slug predators, so we will help to promote the understanding that taking steps towards boosting hedgehog numbers will actually help control the slug population in your garden.

### Hedgehog day

A local hedgehog education day will give residents the information and tools needed to make their gardens hedgehog friendly and engender interest in hedgehogs throughout the community. We would give out information on growing wildflower gardens to promote invertebrates, which will in turn encourage hedgehogs. As well as showing people how to construct a hedgehog house and sign-up hedgehog wardens.

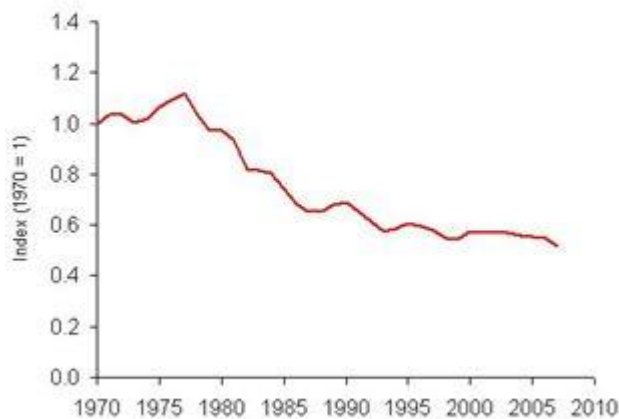
## Farmland Birds

### What is the issue?

Data going back to 1970 indicates a 48% decline on average of 19 bird species that are dependent on farmland. These species are used to estimate bird population trends of 28 species in total, but the selected 19 species were chosen as these are the easiest to survey. The table below shows a decline in specialist farmland birds whilst common generalists have increased.

Species	Change between 1970-2007
Tree sparrow	-94%
Corn bunting	-90%
Turtle dove	-89%
Grey partridge	-87%
Yellow wagtail	-73%
Starling	-68%
Linnet	-58%
Lapwing	-58%
Yellowhammer	-54%





Skylark	-51%
Kestrel	-35%
Reed bunting	-27%
Whitethroat	+5%
Greenfinch	+23%
Rook	+41%
Stock dove	+55%
Goldfinch	+64%
Woodpigeon	+125%
Jackdaw	+136%

### Causes for farmland bird decline

Many changes have taken place in agricultural Britain since 1970, and many separate factors have affected farmland birds simultaneously. The main factors driving the decline of these birds are:

- Loss of mixed farming - this has led to a reduction in habitat and fewer foraging opportunities
- Increased use of pesticides - this means fewer insects, an important food source for birds
- Changes in the types of crops grown, and the loss of fallow winter stubbles has reduced the habitats for winter nesting birds such as skylark and corn bunting
- Reduction in meadows and a subsequent increase in improved grasslands
- Increased field sizes - weedy field margins provide insect-rich foraging for birds, but also provides nesting opportunities
- Field Drainage - the removal of wetland habitats has also removed invertebrates which provide food for birds such as tree sparrows and yellow wagtails
- Predation - increased numbers of foxes and crows has led to increased predation upon farmland bird species

What can be done?

### Nesting opportunities

The wildlife value of many existing farm buildings may be easily increased by the addition of nesting and roosting sites. These can be added inside or outside the building, and even buildings such as grain stores which need to exclude wildlife may be adapted by incorporating entrance holes on the outside.

Construction plans for building nest boxes are freely available on the internet, provided by the RSPB, Barn owl trust and many others besides. By encouraging local farmers to install nesting boxes in agricultural buildings, the number of nesting sites for farmland birds may increase, helping to build the local population of these species.

Sustainable Marshfield may be able to assist in this by:

- Surveying local farmers to obtain details of willing participants
- Funding the providing the funding for the materials to build these nest boxes
- Providing /finding the volunteers to construct nest boxes
- Purchasing nest boxes outright
- Encouraging others to work on their own initiative by publishing positive actions via social media, and providing plans / details, as well as positive outcomes

### Hedgerows and Trees

Hedgerows and stand-alone trees provide roosting and foraging habitat for farmland birds as well as essential corridors to disperse within the landscape

Sustainable Marshfield may be able to assist in this by:

- Sourcing trees via charitable organisations
- Sourcing volunteers to assist with planting of the hedgerow trees
- Liaising with the local farming community to assist and inform best practices
- Encouraging others to work on their own initiative or to get involved by publishing positive actions via social media, and providing plans / details, as well as positive outcomes

Funding for planting hedgerows which are connected to existing hedgerows may also be obtained from DEFRA.

### Wildflower banks

Changes to the banks and verges around Marshfield may be implemented for the better, by sowing wildflower seed mixes which provide habitat for insects, and provides seeds, both of which are valuable birdfeed.

Sustainable Marshfield may be able to assist in this by:

- Locating suitable candidate areas for planting
- Acquiring / sourcing wildflower seed
- Providing volunteers for preparing the land / sowing the seed

- Encouraging others to work on their own initiative or to get involved by publishing positive actions via social media, and providing plans / details, as well as positive outcomes

Further changes may also be beneficial to birdlife around Marshfield such as increasing margins around arable fields.

## Woodland Management

### Woodland in Marshfield – Current Situation

There are multiple areas of woodland in Marshfield. This includes several sections of lowland mixed-deciduous woodland, wet woodland, and plantation of ancient woodland sites. The majority of woodland is located to the south of the village with sparse woodland cover north of the A420. There are also several section of priority woodland habitat which includes the woodland at Ringswell Common, Doncombe Woods, and cloud woods etc.



### Threats

The two main threats to woodland are the reduction in traditional management and the increase in non-native deer species. The reduction in traditional management such as coppice

production has seen a decrease in the habitat suitability for a range of species including woodland birds, bats, and invertebrates. Woodland management includes the management of the standards within the woodland which enables light into the underwood. This allows for coppicing to be undertaken which provides good habitat for a range of species.

The increase in deer species especially non-native deer such as muntjac has meant that there is a big impact on native flora from over browsing which has in turn made it harder to undertake traditional woodland management as coppice regrowth is eaten before it establishes.

Ash die back is impacting woodlands across Marshfield and within the wider area. We can expect that over the next twenty years over 95% of ash trees will be affected. The impact on species which rely on trees will be significant. Since there is no immediate cure for the disease the only mitigation against this impact is to plant other trees to allow them to get established by the time ash trees nearby die or are felled.

#### Actions

The following actions could be encouraged and supported either through local landowners or Local citizens via organisations such as Sustainable Marshfield.

1. Local Landowners should be encouraged to maximise opportunities to exploit agricultural grants and subsidies, particularly new grants becoming available as a result of the move away from the EU-based agricultural scheme.
2. SGC should be consulted on identifying which road verges would be suitable for planting roadside trees to replace mature trees affected by ash dieback. These may not be immediately adjacent to affected trees, rather that new trees could be planted where verges were wide enough that planting would not affect traffic safety, sight lines, existing walls, access to hedges. Verge cutting and management would then be adjusted to allow trees to become established.
3. Sustainable Marshfield to help identify suitable new areas of woodland which would be particularly useful to enhance the local habitat.
4. Encourage the sustainable management of woodland within Marshfield. This could be undertaken by raising awareness of the woodland management, providing volunteers, and surveying woodland within the Parish of Marshfield.

## Fruit Trees and Apple Day

Apple day has been hosted by Sustainable Marshfield since XXX. This day provides a space for the parishioners of Marshfield to engage with members of sustainable Marshfield to connect with local projects, and to share apples! A plan for this day could be to further connect the Apple day with the local environment and to expand the amount of orchards/fruit trees within Marshfield. Key objectives for this day are provided below:

- Source areas to plant new orchards and fruit trees. This could include commons such as West End Common, or fields under the ownership of private individuals.

- Engage with landowners and establish long term rent of paddocks and fields which are not used for agricultural purposes for orchard planting
- There are several organisations which provide funding and support for orchards, make contact with these groups
- Create a subgroup of the council with members of Sustainable Marshfield to form an orchard working group
- Host apple days in Orchards

## Local Nature Network and Local Initiatives

The nature Recovery Network identifies a significant section of Marshfield as being within the strategic grassland network and the woodland strategic network. These areas are predominantly to the south of the village. However, there is a band of grassland strategic zone which leads from the west of the village to the north. This also includes a grassland connectivity gap near West End Common.

## Conclusions