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# ST MARY'S CHURCHYARD, THORNBURY
# BIODIVERSITY AUDIT

## SUMMER 2026

## For

## THORNBURY TOWN COUNCIL



# ST MARY'S CHURCHYARD

# ECOLOGICAL ENHANCEMENT PLAN

## 1 INTRODUCTION

This plan is one of a series commissioned by Thornbury Town Council with the aim of assessing the biodiversity interest of green spaces in the town and identifying measures that might be taken to enhance this interest, whilst maintaining their value for both formal and informal recreation. A similar series of surveys was undertaken in 2022.

Site surveys were carried out on 21st May and 10th June 2026. They covered vegetation types and plant species, insects and birds; potential for other groups was assessed.

## 2 SITE DESCRIPTION

### 2.1 Summary

The churchyard consists largely of grassland between graves; the composition of the grassland varies between different areas of the churchyard but most areas are at least moderately species-rich. The management of the grassland varies: some is mown short, other areas are mown once a year, and some areas have not been managed recently. There are also scattered trees and shrubs, with more continuous lines of woody vegetation on the site boundaries.

The churchyard is close to the north-western edge of Thornbury and provides a link between habitats around the castle and in the open countryside and more urban sites, including the playing fields at Chantry Road and around The Castle School and Oakleaze Green and St Mary's Primary School.

### 2.2 Vegetation

The areas described below are shown on the attached map.

Area 1

The grassland between the graves was described was described in 2022 as: "*dominated by red fescue (Festuca rubra) with other grass species including creeping bent (Agrostis stolonifera) and smooth meadow grass (Poa pratensis). Herb species make up a high proportion of the sward, with frequent species including common catsear (Hypochaeris radicata), white clover (Trifolium repens), common daisy (Bellis perennis), ribwort plantain (Plantago lanceolata) and mouse-ear hawkweed (Pilosella officinarum), as well as the moss Rhytidiadelphus squarrosus. Less frequent species include hoary plantain (Plantago media), black knapweed (Centaurea nigra), lesser hawkbit (Leontodon saxatils) and rough hawkbit (Leontodon hispidus)*."

It remained broadly similar in 2026 but a few additional species, including hoary plantain (*Plantago media*) and cowslip (*Primula veris*), were recorded. Rough hawkbit is now locally frequent.

Most of the graves are open but a few are overgrown with scrub, most commonly ivy (*Hedera helix*) and dogwood (*Cornus sanguinea*). Most of the headstones and tombs support a good growth of lichens: frequent species include *Caloplaca flavescens, Caloplaca saxicola* and *Aspicilia caesiocinerea*; less frequent species include *Opegrapha gyrocarpa* and *Melanelixia fuliginosa*.

Mature and semi-mature trees are scattered through the area. Species include lime (*Tilia x vulgaris*), Montpellier maple (*Acer monspessullanum*) and various whitebeams (*Sorbus spp*). There are heavy growths of mistletoe (*Viscum album*) on some of the whitebeams.

Area 2

A small patch of taller grassland by the church door was identified in 2022 as having additional herb species, including yellow rattle (*Rhinanthus minor*) and ox-eye daisy (*Leucanthemum vulgare*). These species survived here in 2026, when wild carrot (*Daucus carota*) was also recorded.

Area 3

This area of tall grassland was described as follows in 2022: "*false oat-grass (Arrhenatherum elatius) is frequent here with other grass species including red fescue and Yorkshire fog (Holcus lanatus). Herb species in this area include ribwort plantain, common catsear and germander speedwell, with patches of tall herb vegetation dominated by rosebay willowherb (Chamaenerion angustifolium). Scrub is encroaching across parts of the area, the most frequent species being bramble (Rubus fruticosus agg), buddleia (Buddleja davidii) and holly (Ilex aquifolium).*

*A small part of the area, close to the bird feeders, is more diverse with additional species here including wild carrot (Daucus carota), black knapweed, ox-eye daisy, bird's-foot trefoil (Lotus corniculatus), hedge bedstraw (Galium album) and salad burnet (Poterium sanguisorba).*

*Another small area has been planted with a pollinator mix; plants surviving from this include California poppy (Eschscholzia californica) and radish (Raphanus raphanistrum), with associated ruderals including spear thistle (Cirsium vulgare) and hoary willowherb (Epilobium parviflorum).*"

The area remained broadly similar in 2026. Species derived from the seed mix, such as cornflower (*Centaurea cyanus*), corn cockle (*Agrostemma githago*) and corn marigold (*Glebionis segetum*), are still evident. Populations of other plants are much as described in 2022, but some additional species, including yellow rattle, were recorded.

Area 4

The eastern boundary has a line of trees, which include lime (*Tilia x vulgaris*) and laburnum (*Laburnum anagyroides*), over a ground flora dominated by ivy with some stinking iris (*Iris foetidissima*).

## 2.3 Fauna

Signs of badger and fox activity were seen in the north-eastern corner of the churchyard.

The following bird species were recorded:

2022 - blue tit, chiffchaff, great tit, long-tailed tit, jackdaw, magpie and wood pigeon.

2026 – blackbird, blue tit, chiffchaff, dunnock, great tit, jackdaw, mistle thrush, robin, rook and wood pigeon

The insect species recorded were:

2022

Speckled wood butterfly;
Common carder bee; and
*Coreus marginatus* and *Pinalitus viscicola* bugs.

2026
Holly blue butterfly;
Garden pebble and cinnabar moths;
*Bombus terrestris, Lasioglossum leucozonium, Megachile centuncularis* and *Osmia bicornis* bees;
Seven-spot ladybird, 24-spot ladybird, *Oedemera nobilis* and *Cassida vibex* beetles;
*Eurygaster testudinaria, Palomena prasina, Dolycoris baccarum, Nabis ferus* and *Rhopalus subrufus* bugs*;* and
*Pipizella viduata, Chloromyia formosa, Eristalis tenax, Helophilus pendulus, Eumerus strigatus, Dioctria rufipes* and *Xanthogramma pedissequum* flies.

## 2.4 Amenity

The southern part of the churchyard forms part of the approach to St Mary's Church, which is in active use. The rest of the churchyard also appears to be well visited; it offers opportunities for quiet recreation, access to historic gravestones and views over part of the Thornbury Castle.

# 3 EVALUATION

## 3.1 Introduction

Various criteria are used in assessing the biodiversity value of sites. These include rarity, in terms of either habitats or species, which can be viewed in a range of contexts from international to local and also degree of threat: some species remain widespread but are of conservation concern because their populations have declined rapidly. Some habitats take many centuries, or require very specialised conditions, to develop their full diversity and those that cannot be recreated are more highly valued than those that can be readily created. The extent and connectivity of habitats is of importance, since many species rely on large areas of habitat or on having access to

different habitat types at different stages in their life cycle. This can be particularly important in urban areas, where species can be lost from small and isolated areas of habitat, even if these remain in good condition. Conversely, sites can have value in a wider context if, for example, they allow wildlife to colonise gardens and other sites in the surrounding area or if they allow wildlife to move into and across otherwise inhospitable areas. In accessible urban areas the public appeal or visibility of wildlife is also a factor in contributing to public enjoyment and wellbeing.

Guidance on site evaluation is given in various publications, including the South Gloucestershire Biodiversity Action Plan (BAP) and the 2006 Natural Environment and Rural Communities (NERC) Act, and has been followed here.

### 3.2 Habitats

The grassland across almost all of the churchyard is moderately diverse. The plants present here include several species that are indicative of unimproved grassland, a habitat type that has undergone serious declines, largely as a result of agricultural intensification and is recognised as a priority for conservation in BAPs and the NERC Act. The indicator species recorded widely across the churchyard include black knapweed, hoary plantain, mouse-ear hawkweed, lesser hawkbit and rough hawkbit; species that are more localised within the churchyard include ox-eye daisy, yellow rattle, bird's-foot trefoil, salad burnet and wild carrot. Cowslip was recorded in 2026, but not in 2022, although this may reflect the earlier timing of the 2026 survey.

Two locally uncommon plant species, changing forget-me-not (*Myosotis discolor*) and yellow-juiced poppy (*Papaver lecoqii*), were recorded in the western part of the churchyard. The former is associated with sparse grassland on nutrient-poor soils. It has been recorded from about ten other sites in South Gloucestershire, but only two of these records is in the last twenty years. Yellow-juiced poppy is traditionally associated with arable fields but is now more often seen in disturbed ground. Its local distribution has also contracted drastically, and it has only been recorded from one other site in South Gloucestershire in the last twenty years.

Yellow-juiced poppy is included in the Great Britain Red List of threatened plant species, as are two of the grassland indicator species: hoary plantain and salad burnet.

The diversity of micro-habitats within the site, provided by grassland of different lengths, graves, trees and shrubs, suggests that the grassland is likely to be of some value for invertebrates. The diversity of insect species recorded rose between 2022 and 2026. Most are widespread, but the range of species recorded is impressive.

The robberfly *Dioctria rufipes* has only been recorded at one other site in South Gloucestershire since 2000; it is a predator of other insects, associated with hedges and woodland edge. The tortoise beetle *Cassida vibex* had been recorded from one other site in South Gloucestershire this century. It is associated with various plants in the daisy family, including thistles and yarrow. Field damsel bug (*Nabis ferus*) has

previously been recorded at two sites in South Gloucestershire. It is a predator of other insects, found in tall grassland.



*Cassida vibex*, a locally scarce tortoise beetle recorded in the churchyard in 2026

Gravestones within the churchyard support a reasonable quantity and diversity of lichens and a full survey may reveal species of interest.

The churchyard is of nature conservation value in a South Gloucestershire context.

### 3.3 Protected and Invasive Species

The only protected species recorded was badger: foraging signs were seen near the north-eastern corner of the churchyard.

It is likely that bats use the churchyard, especially the tree line on the eastern boundary, for foraging and commuting.

The churchyard has suitable habitat for reptiles, in particular slow worm.

No scheduled invasive species were recorded on the site.

### 3.4 Summary

| Feature | Scale of Interest | Features of Interest |
|---|---|---|
| Grassland | South Gloucestershire context | Diverse vegetation, including indicator species of unimproved grassland and uncommon species associated with disturbed ground |
| Monuments | Local context, possibly greater | Lichen populations |
| Trees | South Gloucestershire context | Invertebrate and bird populations |

### 3.5 Trends

The vegetation in the churchyard has changed relatively little since 2022, although the area of tall grassland has been allowed to expand and this is reflected in the greater number of insect species recorded in 2026.

There was a slight increase in the number of bird species recorded between 2022 and 2026. The species not recorded in the earlier year include mistle thrush, which is a species of conservation concern due to a severe decline in its population. The varied tree population within the churchyard and in the surrounding area, combined with areas of grassland, provide ideal habitat for this species.

## 4 MANAGEMENT

### 4.1 Aims

To maximise the biodiversity interest of the site whilst maintaining its role as a churchyard.

### 4.2 Objectives

To maintain species-rich grassland on the site.

To maintain graves and monuments in a suitable condition for lichen growth.

To retain a mix of grassland sward length.

### 4.3 Constraints

The main constraints on management for biodiversity here are the need to agree any changes in management with the church and to ensure the good condition of the monuments, some of which have listed status. For these and general amenity reasons it is appropriate to maintain the grassland around most of the site in a fairly formal condition.

### 4.4 Rationale

The churchyard is currently of high interest for biodiversity and significant changes to existing management practices are not recommended.

The main biodiversity objective here is to ensure that species-rich grassland survives in the churchyard. This requires management of the grassland, which is normally in the form of either grazing or mowing. Grazing is not possible here so a mowing regime should continue.

It is proposed that the current balance between tall and short grassland is maintained. The tall grassland is of value for small mammals and for many groups of invertebrates and allows plants to flower and set seed. The shorter sward benefits low growing plants such as hoary plantain and provides habitat for fungi and for insects such as burrowing bees. It also keeps monuments in better condition by discouraging vegetation growth across stones and by allowing access to stones for management. This has benefits for lichen populations, as well as for heritage and amenity reasons.

In summary, it would be beneficial to retain areas of both tall and short grassland. It is important, whatever approach to mowing is taken, that the fertility of the grassland is kept low.

Parts of the grassland is threatened by scrub encroachment and, whilst scrub has some value for wildlife, scrub should be controlled in order to reverse this trend.

The churchyard has a good balance of trees and open habitats, and this should be maintained – additional tree planting is not recommended but any lost trees should be replaced. Retention of mistletoe should allow the population of *Pinalitus viscicola* to survive.

### 4.5 Management Proposals

1 No fertilisers or herbicides of any kind should be used on any area of grassland.

2 Continue grassland mowing across area 1. In order to allow low-growing plants to flower, whilst maintaining a formal appearance and protecting graves, mow once a month from April to September.

3 Continue to keep monuments clear of scrub and ivy.

4 Mow area 2 once a year in August. Gather and remove arisings.

5 Clear bramble and other scrub from area 3 as shown on the map below.

6 Mow the more diverse part of area 3, as shown below on the map annually in August. Gather and remove arisings.

7 If possible, mow the remainder of area 3 every three years in August. Gather and remove arisings.

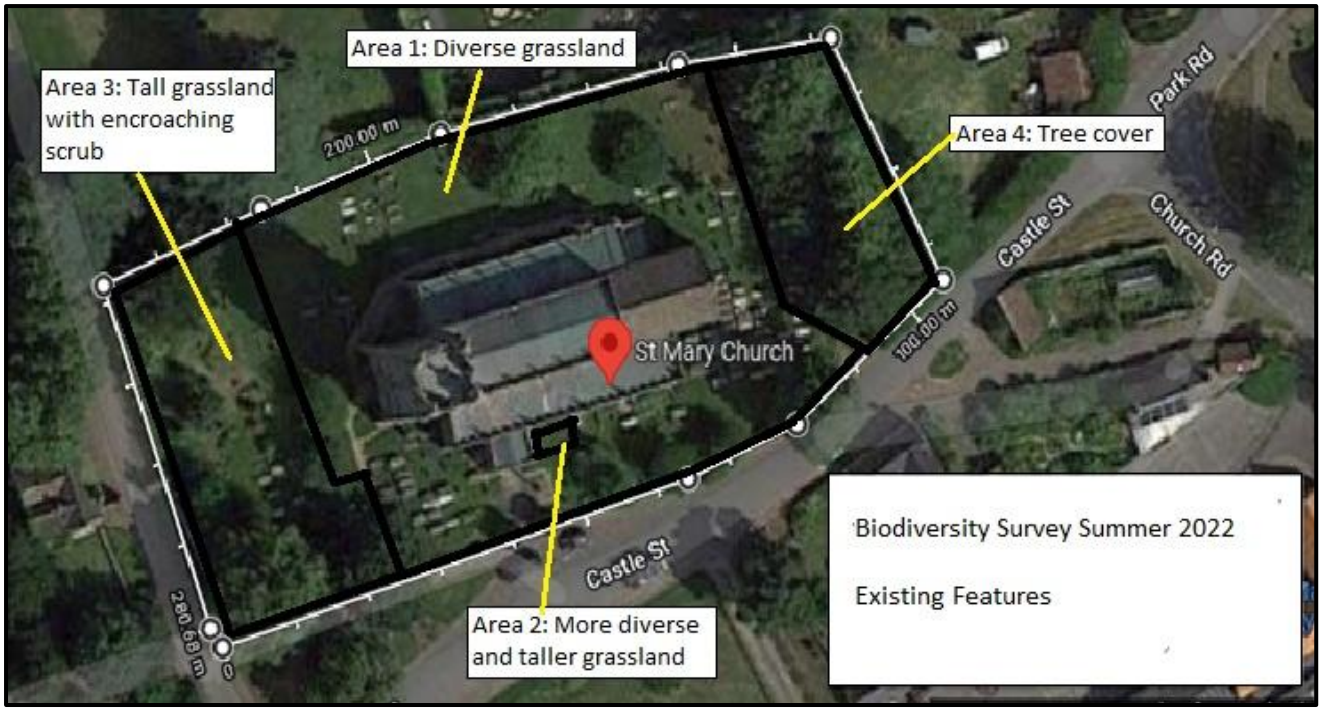
8 Trim back trees on the edge of area 4 where these are encroaching across grassland and tombs.

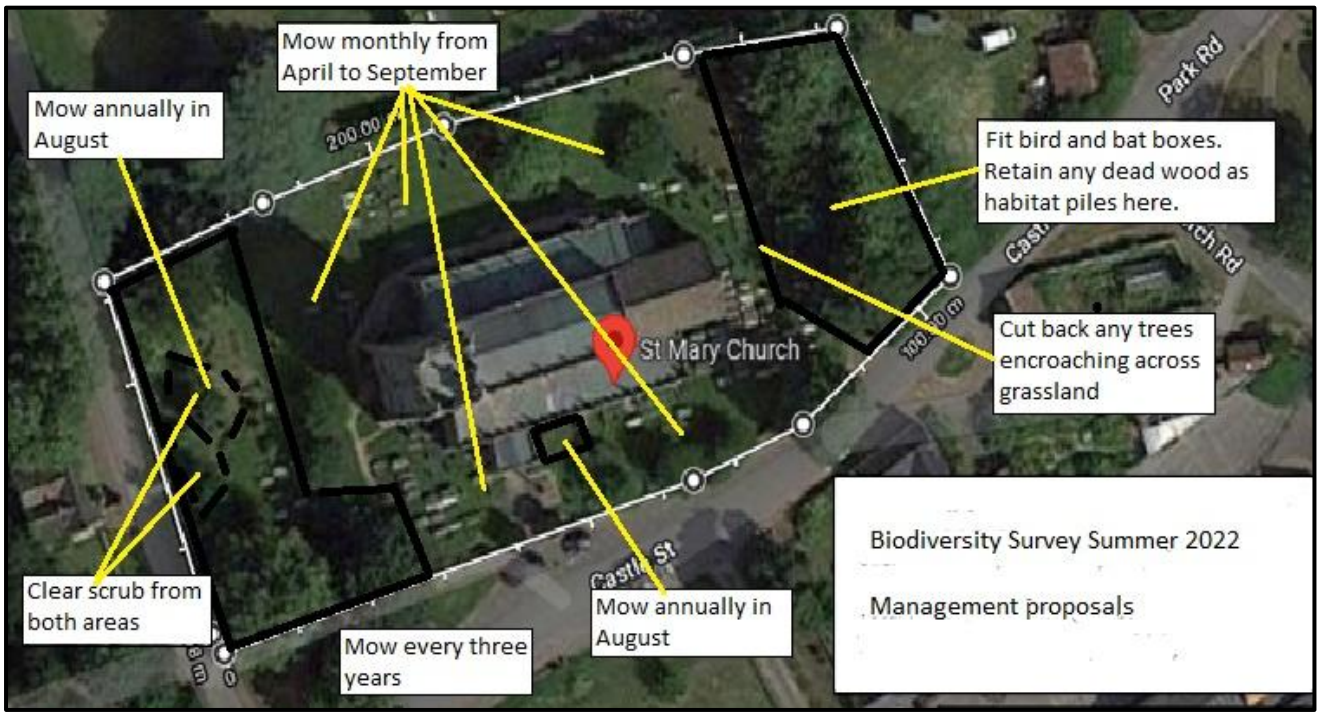
9 Maintain bug hotel and bird and bat boxes as necessary.

10 Retain any dead wood as a habitat feature, place in partial shade in area 4. Logs should be kept in as large sections as possible, because this makes them difficult to move and also provides optimal habitat for wildlife.

## 4.6 Work Planner

| Task | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| Mow area 1 | Monthly, Apr-Sept | Monthly, Apr-Sept | Monthly, Apr-Sept | Monthly, Apr-Sept | Monthly, Apr-Sept |
| Keep monuments clear of ivy and scrub | As necessary | As necessary | As necessary | As necessary | As necessary |
| Mow area 2, gather and remove arisings | August | August | August | August | August |
| Clear scrub in area 3 | Sept-Feb | | Sept-Feb | | Sept-Feb |
| Mow diverse part of area 3, gather and remove arisings | August | August | August | August | August |
| Mow remainder of area 3, gather and remove arisings | Aug | | | Aug | |
| Trim back trees on edge of area 4 | Nov-Jan | | Nov-Jan | | Nov-Jan |
| Fit bird and bat boxes to trees in area 4 | January | January | | | |
| Check bird and bat boxes, and replace as necessary | | | January | January | January |
| Maintain bug hotel | As necessary | As necessary | As necessary | As necessary | As necessary |
| Create dead wood piles in area 4 | As dead wood becomes available | As dead wood becomes available | As dead wood becomes available | As dead wood becomes available | As dead wood becomes available |


Area 1: Diverse grassland
Area 3: Tall grassland with encroaching scrub
Area 4: Tree cover
Park Rd
Castle St
Church Rd
St Mary Church
Area 2: More diverse and taller grassland
Biodiversity Survey Summer 2022
Existing Features


Mow monthly from April to September
Mow annually in August
Fit bird and bat boxes. Retain any dead wood as habitat piles here.
Park Rd
Cut back any trees encroaching across grassland
St Mary Church
Clear scrub from both areas
Mow annually in August
Mow every three years
Biodiversity Survey Summer 2022
Management proposals