Wessex Ecological Consultancy

28 Egerton Road, Bishopston, Bristol BS7 8HL
Tel: 0117 9441034
Email: dawn or rupert@wessexeco.co.uk
Web: wessexeco.co.uk

MUNDY PLAYING FIELDS
BIODIVERSITY MONITORING AND ENHANCEMENT PLAN
SUMMER 2026

For
THORNBURY TOWN COUNCIL



MUNDY PLAYING FIELDS

ECOLOGICAL ENHANCEMENT PLAN

1 INTRODUCTION

This report is one of a series commissioned by Thornbury Town Council following on from a series of surveys carried out in 2022. The 2022 surveys had the aim of identifying measures by which the biodiversity interest of green spaces in the town might be enhanced, whilst maintaining their value for both formal and informal recreation. The 2026 surveys were carried out to assess the effectiveness of any changes in management, and to make further recommendations where appropriate.

Site surveys were carried out on 20th May and 9th 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 site is dominated by large areas of mown grass, some of which is used as football pitches and some for informal play, with smaller areas of tree and shrub cover, which include lengths of species-rich hedge, and a stretch of stream.

The site is on the western edge of Thornbury, between the town and open countryside, so has the potential to contribute to the ecological connectivity of both public spaces and private gardens in that part of the town.

2.2 Vegetation

The areas described below are shown on the attached map. Area descriptions from 2022 are included as Appendix 1: changes observed since then are described below.

2.2.1 Grassland

Area A

The grassland across most of the site has not changed, but alterations to management have led to changes to the sward in parts of the site.

The following areas are broadly similar but have a slightly higher diversity:

Ai): A slightly elevated frequency of herbs was detected here in 2022 and the grassland has since been left to grow tall. The species recorded in the two years were broadly similar but a greater diversity of grasses was recorded in 2026; these included sweet vernal grass (*Anthoxanthum odoratum*), Yorkshire fog (*Holcus lanatus*) and meadow foxtail (*Alopecurus pratensis*). Additional herb species recorded in 2026 include common sorrel (*Rumex acetosa*) and meadow buttercup (*Ranunculus acris*).

Aii): The is another area that was noted in 2022 as having a higher diversity of both grasses and herbs than other areas of grassland. It has since been allowed to grow tall and has been planted with a seed mix. A significantly increased diversity of plants

was recorded here in 2026, with additional species including common knapweed (*Centaurea nigra*), yellow rattle (*Rhinanthus minor*), common bird's-foot trefoil (*Lotus corniculatus*), ox-eye daisy (*Leucanthemum vulgare*), wild carrot (*Daucus carota*) and cowslip (*Primula veris*). Annual herbs that have taken advantage of the bare soil created by wildflower planting include common forget-me-not (*Myosotis arvensis*) and wall speedwell (*Veronica arvensis*).

Aiii) This area had been left to grow tall but was mown shortly before the survey was carried out and could not be fully surveyed.

Aiv) This is another area that was noted in 2022 as having a slightly elevated diversity of herbs and has since been left to grow tall, with some areas planted with a wildflower mix. Arable weeds such as corncockle (*Agrostemma githago*), austrian chamomile (*Anthemis austriaca*) and field poppy (*Papaver rhoeas*) are present in the seeded patches. Other parts of the area have good quantities of yellow rattle and pignut (*Conopodium majus*).

Area B

The grassland on the banks around the play area and to the south was noted in 2022 as being significantly more diverse than that elsewhere on the site. Most of the area was close mown then but the management regime has since been relaxed, resulting in a significant increase in diversity.

The west-facing and south-facing continue to support large quantities of sheep's sorrel (*Rumex acetosella*) with additional species in 2026 including subterranean clover (*Trifolium subterraneum*), knotted clover (*Trifolium striatum*), lesser trefoil (*Trifolium micranthum*), slender parsely-piert (*Aphanes australis*), prickly sedge (*Carex muricata*), squirrel-tail fescue (*Vulpia bromoides*) and small cat's-tail (*Phleum bertolonii*).

The north-facing banks continue to support a good variety of species, including common sorrel (*Rumex acetosa*), glaucous sedge (*Carex flacca*) and burnet saxifrage (*Pimpinella saxifraga*).

2.3 Fauna

The following bird species were recorded in 2022:

Hedge 6. Wood pigeon.
Hedge 8: Robin, wood pigeon and wren.
Hedge 9: Blue tit, chiffchaff, robin, treecreeper, wood pigeon and wren
Hedge 10: Blackcap, chiffchaff, dunnock and goldfinch.

Other species present across the site were greenfinch, green woodpecker, jackdaw and magpie, with house martin feeding overhead.

The following were recorded in 2026:

Hedge 1 Blackcap, goldfinch and robin
Hedge 6. Blackbird, dunnock, chiffchaff, robin and wood pigeon.
Hedge 7 Blackbird, blackcap, blue tit and robin.
Hedge 8: Blackbird, blue tit, robin, wood pigeon and wren.
Hedge 9: Blackbird, blue tit, magpie, robin, wood pigeon, siskin and wren
Hedge 10: Blackcap, chiffchaff, dunnock, greenfinch and goldfinch.
Hedge 11: Goldfinch, robin and wood pigeon.
Hedge 13 (stream): Rook and grey wagtail.

Other species present across the site were carrion crow, pied wagtail, jackdaw, starling and magpie, with house martin and swift feeding overhead.

The following insect species were recorded:

2022

Hedge 6: *Stigmella plagicolella* moth.
Hedge 7: *Phyllonorycter coryli, Phyllonorycter nicellii, Stigmella micotheriella, Stigmella floslactella, Parornix devoniella* and *Celypha lacunana* moths.
Hedge 10: *Phyllonorycter coryfoliella* moth.

2026

Ai (unmown area) *Epistrophe grossulariae* fly

Aii (unmown areas) Buff-tailed bumblebee, *Lasioglossum* sp bee; seven-spot ladybird, *Oedemera nobilis, Oulema melanopus, Cantharis rustica* and *Mecinus pascuorum* beetles; *Stenodema calcarata* bug.

Aiv Red-tailed bumblebee and *Lasioglossum* sp bees

B Red-tailed bumblebee and common carder bee; meadow brown butterfly.

Hedge 2 *Eristalis tenax* and *Meliscaeva auricollis* flies; *Nomada marshamella* bee; *Oedemera nobilis* beetle

Hedge 4 *Celypha lacunana* moth; buff-tailed bumblebee and early bumblebee; seven-spot ladybird, sixteen-spot ladybird, *Oedemera nobilis* and *Cantharis rusticana* beetles; *Coreus marginatus* bug; *Helophilus pendulus, Epistrophe eligans, Melanostoma scalare* and *Dioctria rufipes* flies.

Hedge 5 Holly blue and small copper butterflies; common carder bee, early bumblebee, buff-tailed bumblebee, *Andrena cineraria, Andrena nitida, Andrena flavipes* and *Nomada marshamella* bees; harlequin ladybird, seven-spot ladybird, fourteen-spot ladybird, *Liloceris lilii, Gastrophysa viridula* and *Stenocorus meridianus*

beetles; *Dolichopus plumipes, Helophilis pendulus, Eristalis tenax, Eristalis pertinax* and *Episyrphus balteatus* flies; *Coreus marginatus* bug.

Hedge 6 *Apotomis turbidana, Pseudargyrotoza conwagana* and *Alabonia geoffrella* moths; *Chrysopilus cristatus, Dolichopus plumipes, Nephrotoma quadrifaria, Ptychoptera lacustris, Helophilus pendulus* and *Melanostoma scalare* flies; cream-spot ladybird, fourteen-spot ladybird, *Pyrochroa serraticornis* and *Grammpotera ruficornis* beetles

Hedge 7 *Cheilosia albitarus* fly; *Phyllobius pomaceus* beetle.

Hedge 9 Green-veined white butterfly; early bumblebee; *Helophilus pendulus* fly; *Amara aenea* beetle.

Stream *Phaonia pallida* fly and *Tingis cardui* bug.

2.4 Amenity

The playing field provides a major resource for the population of Thornbury, which includes providing formal children's play, football pitches and areas for informal recreation.

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 by various sources, 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

Grasslands

Area B, on the banks around the playground and to the east of the stream, was identified in the 2022 report as the most valuable area of grassland on the site; its value has since risen considerably following changes in the management regime. Species that were highlighted in the earlier report, such as sheep's sorrel, burnet saxifrage and glaucous sedge, are still present. Several species that were not recorded in 2022 were recorded in 2026. Most notably, they include:

- subterranean clover, which has not been recorded in South Gloucestershire since 1985;
- knotted clover, which had been recorded at two other sites in South Gloucestershire (one of them allocated for development) since 2000; and
- slender parsley-piert, which is known from one other site in South Gloucestershire.

The two clover species are present in exceptional quantity. Like sheep's sorrel, these three species are indicative of soils with a low pH, which are rare in most of South Gloucestershire. This area is very small, but it supports lowland dry acidic grassland, which is listed as a Priority Habitat in Section 41 of the 2006 NERC Act.

Area B is of nature conservation value in a South Gloucestershire context.



Trifolium subterraneum and *Trifolium striatum*

Most of Area A is of minimal nature conservation value but the more diverse areas that have been left to grow tall now support some species indicative of unimproved grassland, notably pignut and common knapweed. The new management regime has also enabled colonisation of these areas by a range of grassland insect species. Most are widespread, but *Mecinus pascuorum,* a weevil associated with ribwort plantain, is known from only two other sites in South Gloucestershire.

These areas are of nature conservation value in a local context.

Hedges and Trees

The nature conservation value of the hedges remains as described in 2022: hedges 4, 5, 6, 7 and 8 qualify as Important Hedgerows under the 1997 Hedgerow Regulations, largely due to their diversity of woody species. The hedges support a good diversity of insects. Most of these are widespread, but the longhorn beetle *Stenocorus meridianus,* which is associated with dead wood, has only been recorded at three other sites in South Gloucestershire. 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 cranefly *Ptychoptera lacustris* has not previously been recorded from South Gloucestershire: it is associated with shaded wetlands, including small streams.

These hedges are of high nature conservation value in a local context.



Stencorus meridianus

There are notable trees associated with some of the hedges; the most valuable of these are in hedges 4, 6, 8 and 9. As well as contributing to the nature conservation value of the hedges these trees are of ecological value in their own right.

Wetlands

Ditches and streams provide wetland habitat in parts of the site.

The ditches are small, but they support a reasonable diversity of wetland plant species. The most diverse are those along hedges 2 and 8 and at area 12. None of the plant species recorded is uncommon but they add diversity to the site. The ditches are of value for a range of insect species, including *Ptychoptera lacustris* mentioned above.



Ptychoptera lacustris, a fold-winged cranefly.

The stream has limited amounts of wetland vegetation but there is potential for the development of more extensive stands, which would be of value for invertebrates and birds. The poplar and willow trees associated with the stream provide habitat for a range of invertebrates and are a valuable feature in their own right.

These wetland features are of nature conservation value in a local context.

3.3 Protected and Invasive Species

No sign of any protected species recorded was seen.

Bats may use habitats across the site, particularly the hedges, tree lines and the stream, for foraging and there are potential bat roosts in trees on the boundaries of the playing fields and along the stream.

No scheduled invasive species were recorded on the site.

3.4 Summary

Area	Feature	Scale of Interest	Features of Interest
B	Grassland	South Gloucestershire context	Diverse vegetation, including indicator species of unimproved grassland and locally uncommon plants.
Aiv and v	Grassland	Local context	Populations of fiddle dock.
Hedges 4, 5, 6, 7 & 8	Important hedges	Local context	Diverse woody species, historic and cultural interest
Hedges 4, 6, 8 and 9	Standard trees	Local context	Intrinsic value, and potential for birds, insects and other wildlife
Hedges 2 & 8 and area 12	Wetland	Local context	Plant populations. Potential for invertebrates
Whole site	Amenity	Local context	Formal and informal recreation

4 TRENDS

There have been several changes to the management regime since 2022, and these have led to a significant increase in the site's biodiversity value. Site-wide changes are reflected in the bird species recorded. The 2026 survey was carried out at a more favourable time of year for bird surveying than the 2022 survey, but the increase from 14 species in 2022 to 20 species in 2026 probably reflects a genuine increase in value. Several of the species recorded are of conservation concern: perhaps the most significant are starling and swift. There is no evidence that either species nests on the site, but their use of it for feeding reflects its value for insects.

The increase in the diversity of insects recorded is also striking. Many of those recorded were along the hedges, but several of these are likely to use the areas of long grassland as well.

Changes in plant populations are discussed above. The most significant changes are the appearance of several uncommon plant species at area B, which despite its small size is now one of the most significant areas of acidic grassland in South Gloucestershire.

5 MANAGEMENT

5.1 Aims

To maximise the biodiversity interest of the site whilst maintaining its role as an important resource for both formal and informal recreation.

5.2 Objectives

To maintain species-rich grassland on the site.

To maintain and enhance hedges.

To maintain and enhance wetlands.

5.3 Constraints

The main constraint on management for biodiversity is the need to maintain the value of the site for recreation. The formal play and sports areas should be maintained as at present and short grassland should be retained across other areas of the site, where it is important for informal recreation.

5.4 Rationale

Changes made to site management since 2022, in line with recommendations made in that year's report, have produced some clear improvements in biodiversity value. The modifications to the grassland management regime have increased biodiversity across the site: it is important that these areas are maintained, and provision of further small areas of tall grassland, especially alongside hedges, would be beneficial.

5.5 Management Proposals

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

2 Continue grassland mowing as at present across the most of site

3 The acidic grassland at area B is principally of interest for low growing plants that flower in the spring. It should be mown annually to prevent dominance by tall grasses; the first mow can be at any time from early July onwards and a second mowing in autumn would be beneficial. The arisings should be gathered and removed.

4 Manage the other areas left to grow tall as hay meadow: leave unmown between May and August, then cut and remove arisings. Cuts can be staggered through the summer, so that not all areas are mown simultaneously. Small areas should be left tall over the winter, in order to provide habitat for insects. These areas may require occasional management to prevent scrub encroachment.

5 Allow tall grassland to develop in strips parallel to hedges.

6 Allow the hedges shown on the map below to grow tall, cut every other year in February.

7 Plant further trees, using the following species:

Field maple	*Acer campestre*
Silver birch	*Betula pendula*
Crab apple	*Malus sylvestris*
Pedunculate oak	*Quercus robur*
Rowan	*Sorbus aucuparia*

8 Remove vegetation and silt from ditch at hedges 2, 5 and 12; leave undisturbed patches of vegetation as refuge areas.

9 Leave sections of stream at area 13 unmanaged.

10 Fit bird and bat boxes to trees. Boxes can be either purchased commercially or made by the local community or schools.

11 Retain any dead wood as a habitat feature, place in partial shade on the eastern boundary of the cemetery. Logs should be kept in as large sections as possible, because this makes them difficult for the public 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 grassland at area B; gather and remove arisings	July and September	July and September	July and September	July and September	July and September
Mow tall grasslands; gather and remove arisings	August	August	August	August	August
Remove encroaching scrub from tall grasslands			February		February
Cut hedge 5			February		February
Plant trees	As resources allow	As resources allow	As resources allow	As resources allow	As resources allow
Clear out ditch along hedge 5			August		
Clear out ditch along hedge 2				August	
Fit bird and bat boxes to trees	January	January			
Check bird and bat boxes, and replace as necessary			January	January	January
Create dead wood piles	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



Map 1: Existing features



Map 2: Management proposals.

Appendix 1 Vegetation Descriptions, 2022

The areas described below are shown on the attached map.

Grassland

Area A

The grassland across most of the site is dominated by perennial rye-grass (*Lolium perenne*) with other grass species including creeping bent (*Agrostis stolonifera*), cocksfoot (*Dactylis glomerata*) and rough-stalked meadow-grass (*Poa trivialis*). The diversity of herb species is low, with the most frequent being dandelion (*Taraxacum vulgare*), white clover (*Trifolium repens*) and creeping buttercup (*Ranunculus repens*).

The following areas are broadly similar but have a slightly higher diversity:

Ai): The frequency of herbs is higher here, with species in reasonable quantity including ribwort plantain (*Plantago lanceolata*), bulbous buttercup (*Ranunculus bulbosus*), autumnal hawkbit (*Scorzoneroides autumnalis*) and self-heal (*Prunella vulgaris*).

Aii): The frequency of creeping bent and red fescue (*Festuca rubra*) is higher here, and the frequency of perennial rye-grass lower, than in the main grassland. Common catsear (*Hypochaeris radicata*) is reasonably frequent.

Aiii) Herbs make up a high proportion of the sward here, and include yarrow (*Achillea millefolium*), red clover (*Trifolium pratense*), lesser trefoil (*Trifolium dubium*) and self-heal.

Aiv) Herb species across this area include yarrow, common catsear, ribwort plantain and fiddle dock (*Rumex pulcher*).

Av) Herb species here include yarrow, common castear, ribwort plantain, red clover and fiddle dock.

Area B

The grassland on the banks around the play area and to the south is significantly more diverse than that elsewhere on the site.

The west-facing and south-facing banks have very sparse grassland around small rock outcrops and patches of bare soil, with large quantities of sheep's sorrel (*Rumex acetosella*) in a sward dominated by common bent (*Agrostis capillaris*). Other species here include grey sedge (*Carex divulsa*), black knapweed (*Centaurea nigra*) and fiddle dock as well as the mosses *Ceratodon purpureus* and *Brachythecium rutabulum*.

The north-facing banks have a grass-dominated sward, without bare earth, but herbs are fairly frequent. Common sorrel, glaucous sedge (*Carex flacca*) and burnet saxifrage (*Pimpinella saxifraga*) are still present with additional species including wild

carrot, yellow rattle, spotted medic (*Medicago arabica*) and cuckoo-flower (*Cardamine pratensis*).

Hedges
There are several stretches of hedge on and around the site, as follows:

Hedge 5
This is a low hedge with two semi-mature ash trees. It is diverse and contains hawthorn, field maple, elder, English elm, sallow, dogwood, blackthorn and dogwood. Associated ground flora includes red campion (*Silene dioica*) and wood avens (*Geum urbanum*).

A ditch that runs along the northern side of the hedge is dry but supports hard rush (*Juncus inflexus*) and angelica (*Angelica sylvestris*).

Hedge 6
The hedge between the playing field and the green lane is low and supports a good diversity of woody species: hawthorn, hazel, field maple, elder, ash, spindle, sycamore, holly (*Ilex aquifolium*) and dog rose. It becomes taller to the south, where there are several semi-mature field maple trees and a large pollarded ash. Associated ground flora includes dog's mercury (*Mercurialis perennis*), black bryony (*Tamus communis*), hart's-tongue fern (*Asplenium scolopendrium*) and hedge woundwort (*Stachys sylvatica*). Species in the grassland adjacent to the hedge include common fleabane (*Pulicaria dysenterica*) and common bent.

There is a species-rich hedge on the western side of the green lane.

Hedge 7
This is a tall and leggy hedge of ash, field maple, hazel, dogwood, English elm and sycamore, with associated ground flora species including dog's mercury, hart's-tongue fern, wood dock (*Rumex sanguineus*) and male fern (*Dryopteris filix-mas*).

A line of pedunculate oak trees has been planted parallel to the hedge.

Hedge 8
This hedge is a continuation of hedge 7 but is dominated by tall trees of crack willow (*Salix x fragilis*), with smaller quantities of hazel and grey sallow (*Salix cinerea*). The hedge's ground flora includes hart's-tongue fern, male fern and dog's mercury, and species associated with a small ditch include yellow flag (*Iris pseudacorus*), hemlock water dropwort (*Oenanthe crocata*) and greater pond sedge (*Carex riparia*).

Hedge 9
A low hedge with immature field maple and horse chestnut (*Aesculus hippocastanum*) trees and a mature pedunculate oak. Shrubby species in the hedge are field maple, hawthorn, elder and English elm. At the eastern end of the boundary there is a small copse of hazel, pedunculate oak and dogwood.

Hedge 10
A wide and dense hedge running along a section of the stream, with hawthorn, English elm, field maple and elder.

Hedge 11
A low hedge of hawthorn, hazel and blackthorn, with a semi-mature sallow and associated tree planting including field maple, silver birch (*Betula pendula*), holly and Corsican pine (*Pinus nigra*).

Wetlands
As well as the ditches associated with hedges, described above, the following wetland habitats are present:

Area 12
An open ditch with water mint (*Mentha aquatica*), fool's water-cress, angelica and square-stemmed willow herb (*Epilobium tetragonum*).

Area 13
The small stream has limited wetland vegetation, but small quantities of water figwort and hemlock water dropwort are present. The streamside has scattered trees of hybrid poplar, white willow (*Salix alba*) and Italian alder, which support a moderate growth of bryophytes including the liverwort *Radulua complana* and the moss *Orthotrichum affine*.