# **Marconi Ponds**

# Local Nature Reserve Management Plan 2025 – 2030



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# **Table of Contents**

1.0	INTRODUCTION	3
2.0	RELEVANT LEGISLATION	7
3.0	SITE DESCRIPTION	9
4.0	SITE EVALUATION	19
5.0	PROTECTED SPECIES CONSTRAINTS	25
6.0	OBJECTIVES	26
7.0	MANAGEMENT OPERATIONS 2025-2030	27

# Figures:

Figure 1.	Marconi ponds, location plan.
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- Figure 2.LNR boundary
- Figure 3. LNR and Priority Habitat
- Figure 4.Habitat character areas
- Figure 5. Photographs
- Figure 6. Habitat plan
- Figure 7. Management aspirations

# 1.0 Introduction

# Personnel

- 1.1 Hybrid Ecology Ltd were instructed by Chelmsford City Council to review and update the management plan for Marconi Ponds Local Nature Reserve (LNR).
- 1.2 This report acknowledges the previous plan (2020-2025) produced by Elgan Adlard in collaboration with Steve Plumb. This report has been based on the previous plan with sections updated as necessary.

# Aims

- 1.3 This report aims to guide the management of the reserve between 2025 2030 through identifying key habitat features, species presence/potential and providing clear management prescriptions to maintain and enhance habitats and maximise species opportunities.
- 1.4 The prescriptions may require amendments dependent on site conditions, seasonal weather conditions, input from Chelmsford City Council. Habitat management will respond to the requirements on the ground rather than strictly adhering to the management details outlined in this plan.

# Purpose

1.5 This report is for Chelmsford City Council to help manage Marconi Ponds LNR and should not be used for any other purpose.

### Site information

- 1.6 The LNR is approximately 1.4ha and is owned by Chelmsford City Council.
- 1.7 The site is situated within Chelmsford (see Figure 1) at the northern end of Parkinson Drive. The railway embankment forms the eastern site boundary and a cycleway forms the western boundary. The northern end of the site extends towards the River Chelmer and Central Park, see Figure 2.
- 1.8 The site is the responsibility of the Council's Parks and Green Spaces team. Since 2006 the site has been managed by the Friends of Marconi Ponds with support from Council parks staff. In 2025 the friends group decided to hand the site back to the council. The practical sessions with volunteers are now run as part of the pars volunteer conservation volunteer programme.
- 1.9 To inform this plan, a habitat survey was undertaken out on 1<sup>st</sup> July 2024. This was carried out by qualified ecologist Gemma Holmes (BSc, Hons, ACIEEM) and Nick Miller (MSc). The aim was to walk the site to check for any changes since the previous management plan was produced and compile species lists. Any potential for, or evidence of legally protected/priority species was also identified.
- 1.10 The site contains various ponds at the southern end which are enclosed by locked palisade fencing. This area is not publicly accessible. The remainder of the site contains various areas of woodland, grassland and scrub and is publicly accessible, with information board and opportunities for exercise, walking and relaxation.



# Figure 1: Marconi Ponds, location plan. (Magic Map, 2019).

# Figure 2. LNR boundary/site context



# History

- 1.11 Originally farmland, the site was dug for brick clay after the railway was built in the 1840s. It was then used as a rubbish dump before becoming part of the Crompton Works. The main pond was used to supply water for cooling machines and was first shown on the 1938 OS map. Subsequently part of the site was also used as allotments. Prior to the main factory site being redeveloped the Marconi Ponds area had been unmanaged for several years resulting in scrub developing in the central area and species such as stinging nettle becoming dominant in the northern area.
- 1.12 The site was popular with bottle diggers due to the large number of Victorian bottles present. Unfortunately, the diggers often left deep holes, which were dangerous.
- 1.13 The site was transferred by the developer to the Council in 2004 as part of the planning agreement for The Village development. The covenant restricts its use to nature conservation and informal recreation.
- 1.14 Once the Council received the site it allowed public access and installed a new fence around the ponds and constructed a path through the site. The first volunteer groups began managing the site from 2005, and the Friends of Marconi Ponds held their inaugural meeting in May 2007.

# Management achievements since 2004:

- Creation of additional paths through the site.
- Removing remaining bottles from adjacent to the ponds to prevent further bottle digging. This has resulted in the development of the marsh area (See plan 1)
- Dredging the ponds to manage the reeds and improve the inflow to help maintain water levels.
- Improved management of the northern grassland which has increased the species diversity.
- Coppicing scrub to improve its age structure and therefore opportunities for nesting birds.
- New hedges planted along the boundary with the railway embankment and cycleway fence in the pond area.
- Planted over 100 native tree species and over 1000 wildflower plug plants.
- Construction of a pond-dipping platform and path to enable the ponds to be used safely for environmental education.
- Installation of activity trail through the site.
- Installation of a willow tunnel and a willow dome.
- Provision of two new interpretive panels at the entrances.
- Annual open day events are held to help promote the site.
- Winning the Green Pennant Award and Cathy Carlile Gold Awards in 2010.
- Awarding of Green Flag Community Award each year since 2010.
- Increased number of visits to the site by schools and youth group.

### Management achievements since 2015:

- Achieved local nature reserve status in 2018.
- Desilting and removal of reeds from the large pond (area 24) by a contractor in 2018.
- Several large willow trees coppiced along the path through the reserve.

- Hedgerow laid along boundary with cycleway (area 27).
- Construction of dead hedging along ungated paths.
- Continued coppicing and thinning of woodland areas.
- Planted over 200 native tree species.
- Planted over 600 wildflower plugs in the woodland and grassland areas.
- Installation of Oak carved posts.
- Installation of 3 new recycled plastic benches.
- Construction of a bug hotel and creation of 3 hibernacula.
- Retainment of the Community Green Flag Award.
- Awarded just over one thousand pounds from the John Lewis Community Matters Scheme 2018.
- Installation of new pond bank
- Installation of bat boxes
- Installation of new pond deck
- 1.15 Key to the success of the site management has been the development of the Friends of Marconi Ponds Nature Reserve. This active group has lead on the management and development of the site including organising the annual open days and other activities. The group has been very successful in attracting grants, sponsorship and other funding. The council has always actively supported this and will continue their good work and development

# 2.0 Relevant legislation

Please note this section is a summary of legislation only and should not be taken as a definitive interpretation of any wildlife law. UK wildlife legislation can be found here: Legislation.gov.uk

# Site designations

- 2.1 Marconi Ponds is designated as a Local Nature Reserve (LNR). LNRs are a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949 by principal local authorities. LNRs are for people and wildlife. They are places with wildlife or geological features that are of special interest locally. They offer people opportunities to study or learn about nature or simply to enjoy it.
- 2.2 The site is also designated as a Local Wildlife Site. While they have no direct legal protection, Local Wildlife Sites are recognised in the National Planning Policy Framework (NPPF) which gives them some protection from being developed. The policy requires local authorities to identify, map and safeguard components of wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity.

# **Priority Habitats**

2.3 Parts of the site are mapped by Natural England as Priority Habitat – lowland deciduous woodland. Priority Habitats are those which have been deemed to be of principal importance for the purpose of conserving biodiversity, being listed in the UK Biodiversity Action Plan, and with maintenance and restoration of these habitats being promoted through agri-environment schemes. Such habitats receive a level of protection under the Natural Environment and Rural Communities (NERC) Act (2006) in so far as Local Planning Authorities have a duty to "conserve and enhance".



# Figure 3. LNR and Priority Habitat

### Species

- 2.4 This section provides an overview of species legislation and should be referred to when undertaking habitat works on the site.
- 2.5 Certain species listed on Schedule 5 of the WCA (1981), including all bat species, great crested newt, hazel dormouse and otter are also protected under Schedule 2 of the Habitats Regulations (2019) making them European Protected Species (EPS). Taken together it is illegal to:
  - Deliberately kill, injure or capture any wild animal of EPS;
  - Deliberately disturb wild animals of any EPS in such a way to be likely to significantly affect:
    - The ability of any significant groups of animals of that species to survive, breed, rear or nurture their young; or
    - The local distribution of that species.
  - Recklessly disturb a EPS or obstruct access to their place of rest;
  - Damage or destroy breeding sites or resting places of such animals;
  - Deliberately take or destroy the eggs of such an animal;
  - Possess or transport any part of a EPS, unless acquired legally; and/or
  - Sell, barter or exchange any part of an EPS.
- 2.6 A range of species other than birds, including water vole is protected from disturbance and destruction under the WCA (1981) through inclusion on Schedule 5. All breeding birds are protected from deliberate destruction under the WCA (1981). Certain species are further protected from disturbance at their nest sites being listed on Schedule 1 of the WCA (1981). Common reptiles including common lizard, slow-worm, grass snake and adder are protected under the WCA (1981), they are listed as Schedule 5 species, therefore part of Section 9(1) and section 9(5) apply; the Countryside and Rights of Way Act 2000 (CRoW) also strengthens their protection. Badger is protected from sett disturbance and destruction under the Protection of Badgers Act (1992).
- 2.7 Section 40 of the NERC Act 2006 places a legal duty on local authorities to conserve biodiversity. Section 41 (S41) sets out a list of species and habitats of principal importance. These species are known as Priority Species and are those identified as requiring action under the former UK Biodiversity Action Plan (BAP) and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework. Certain habitats are Priority Habitats they include native hedgerows (>20 metres long, containing woody species), lowland deciduous woodland and floodplain grazing marsh.
- 2.8 Native, species-rich hedgerows are protected as being 'important' under the Hedgerow Regulations (1997). Native hedgerows containing woody species, longer than 20 metres are classed as Priority Habitat.
- 2.9 Japanese Knotweed *Fallopia japonica*, along with a number of other introduced and invasive species, are listed under Schedule 9 of the WCA (1981). Japanese knotweed is highly invasive and its rhizomes cause damage to built structures. Hence it is also classed as controlled waste under the Environment Protection Act (1990) and has therefore either to be removed and disposed of in a licensed landfill or the rhizomes buried to a depth of at least 5m.

# 3.0 Site description

3.1 The site can be divided into three main habitat areas, at the northern end of the site is a small area of open grassland, the central area is dominated by scrub and developing woodland and the ponds and wetland are at the southern end. These areas have been further divided into different character areas (see Plan 1).

# Viaduct Meadow

- 3.2 The northern part of the site was still largely open with little scrub present when the Council acquired it. It was however dominated by tall grasses and coarse herb species such as stinging nettles and Canadian Goldenrod. Bramble was spreading from the railway embankment. Since 2005 this area has been cut and raked in the late summer or autumn which has helped to reduce the dominance of the more competitive vegetation.
- 3.3 The top layer of soil was scraped within the central part of the block north during the winter 2009 to try to reduce the vigour of the nettles and other dominant species.
- 3.4 Wildflower plugs were planted to increase the species diversity. There is an issue with competitive species such as horseradish spreading into the central area. Stinging nettle and bramble still dominate the bank closest to the railway.
- 3.5 The area south of the path contains a better mix of species such as black knapweed, meadow crane's-bill, meadow vetchling red campion and yellow toadflax. In the past Canadian Goldenrod was dominant; however regular removal has enabled a more diverse range of species to establish. It is still necessary to remove some Canadian Goldenrod each year to prevent it re-establishing. Ongoing monitoring and assessment of these areas will allow for adjustment of management if necessary.

### Central wooded area

- 3.6 The central area contains a mix of scrub and developing woodland. Hawthorn is the main shrub species with willows dominating the woodland. There are more open areas that are dominated by dense bramble or nettles into which buddleia is establishing. Unsurfaced paths have been created within the wooded areas.
- 3.7 There are four sub-areas:
  - 1. Twisty Thicket

This comprises tall, dense mainly hawthorn scrub with limited ground flora. Work has begun to coppice small groups of these trees to provide denser cover for birds and diversify the age structure.

#### 2. Bramble Bank

A species rich hedge was planted in 2007 along the eastern boundary adjacent to the railway embankment. The rest of the bank is largely dominated by brambles and hogweed. Where the vegetation has been cut more regularly beside the path other species such as red campion have established.

#### 3. Bluebell Woods

This area contains the largest trees on the site, which link to the more wooded part of the railway embankment. The trees are mainly large sallow with some birch. There are patches of Male Fern growing in the shadier areas. It has the most woody character at present.

#### 4. Dingley Dell

This area contains several large trees, mainly sallow and birch; however there are several open areas containing mainly stinging nettle, bramble and buddleia. The largest open area is at the northern end bordering Twisty Thicket.

#### The Ponds

- 3.8 The southern third of the site contains two ponds that are surrounded by a mix of grassland, scrub and trees.
- 3.9 The main pond used to contain large numbers of fish; however, these died when the pond dried out during the summer of 2006. Subsequently the amount of submerged and emergent vegetation has increased and there is evidence of more dragonflies and other invertebrates in the area.
- 3.10 The main pond was dredged in 2010 and again in 2018 to create more open water as reeds had established across most of the pond. A block of reeds was retained along the eastern edge. The pond has a maximum depth of approximately 2.5m in the centre.
- 3.11 The main pond inflow is via a culvert pipe that runs from the ditch to the west of the cycleway to the pond. It has been unblocked and the sluice in the ditch modified to improve the flow into the ponds; however, during periods of high rainfall it is necessary to block the pipe to prevent the whole site flooding.
- 3.12 The small pond was initially dug out in 2004 as it was completely covered by Reedmace however, the reeds re-established quickly as water levels were very low. The pond was dug out again in summer 2010.
- 3.13 The Council erected a fence around the ponds in 2004; however, bottle digging continued and therefore in March 2005 a bottle digging club could complete a dig of the area to the north of the ponds. This left this area overall about 0.5m lower than the surrounding area. Since that time the

area has developed wetland vegetation dominated by rushes which complements the adjoining pond habitat. Increasing young trees are establishing in this area.

- 3.14 A hedge was planted along the boundary with the cycleway in spring 2010. There are areas of tall hawthorn scrub close to the small brick former pump house. Along the southern edge of the site there is a belt of mainly willow trees which screen the Village development.
- 3.15 A path and pond dipping platform constructed by the Friends Group enable the main pond to be used by community and school groups for environmental education.

Figure 4. Habitat character areas



#### 2024 survey update

3.16 An updated site visit was carried out by Gemma Holmes (BSc, Hons) and Nick Miller, experienced botanist on 1<sup>st</sup> July 2024 to inform this updated plan. The survey found the habitats to be broadly as described in the previous section. The species lists from this survey visit are provided below. Photographs are in Figure 5.

A = abundant at the site, F = frequent, O = occasional. S = scarce species

SPECIES CONFINED TO POND COMPARTMENT (ponds, marsh and pond edge)

Water Plantain Alisma plantago-aquatica O Large plants of Sedge not yet identified Carex species O Meadowsweet Filipendula ulmaria F Hop Humulus lupulus F Yellow Flag Iris pseudacorus F Soft Rush Juncus effusus F Greater Birdsfoot Trefoil Lotus pedunculatus F Yellow Water-lily Nuphar lutea O Self-heal Prunella vulgaris O Mignonette Reseda lutea O S Betony Stachys officinalis O S Lesser Bulrush Typha angustifolia F

#### SPECIES OF WHOLE AREA

Goutweed Aegopodium podagraria O Hedge Garlic Alliaria petiolata A Horse Radish Armoracia rusticana O Wood Burdock Arctium nemorosum O Mugwort Artemisia vulgaris O Daisy Bellis perennis A Hedge Bindweed Calystegia sepium F Welted Thistle Carduus crispus O Pendulous Sedge Carex pendula F Remote Sedge Carex remota A Rosebay Willowherb Chamerion angustifolium O Greater Celandine Chelidonium majus A Smooth Hawksbeard Crepis capillaris O Wild Teasel Dipsacus fullonum F Male Fern Dryopteris filix-mas A Great Hoary Willowherb Epilobium hirsutum F Broad-leaved Willowherb Epilobium montanum O Goosegrass/Cleavers Galium aparine F Lady's Bedstraw Galium verum O Cut-leaved Cranesbill Geranium dissectum O Meadow Cranesbill Geranium pratense F Herb Robert Geranium robertianum F Wood Avens/Herb Bennet Geum urbanum F Ivy Hedera helix A Hogweed Heracleum sphondylium F

Perforate St John's-wort Hypericum perforatum F Himalayan Balsam Impatiens glabra O Field Scabious Knautia arvensis O White Dead-nettle Lamium album O Prickly Lettuce Lactuca serriola O Nipplewort Lapsana communis F Hoary Cress Lepidium draba O Honeysuckle Lonicera periclymenum O Purple Loosestrife Lythrum salicaria O Mallow Malva sylvestris F Pineapple Weed Matricaria discoidea O Amphibious Bistort Persicaria amphibia O Hart's-tongue Fern Phyllitis scolopendrium O Bristly Ox-Tongue Picris echioides F Ribwort Plantain Plantago lanceolata F S Goldilocks Buttercup Ranunculus auricomus O Creeping Buttercup Ranunculus repens F Red Currant Ribes rubrum O Dog Rose Rosa canina O Wild Raspberry Rubus idaeus O Curled Dock Rumex crispus F Broad-leaved Dock Rumex obtusifolius F Wood Dock Rumex sanguineus A Ragwort Senecio jacobea O Groundsel Senecio vulgaris A Red Campion Silene dioica O White Campion Silene latifolia O Pink Campion Silene x hampeana A Canadian Goldenrod Solidago canadensis O Hedge Woundwort Stachys sylvatica F White Clover Trifolium repens F Stinging Nettle Urtica dioica F Bird's-eye / Germander Speedwell Veronica chamaedrys F Hairy Tare Vicia hirsutum A

#### Grasses:

Barren Brome Anisantha sterilis O False Oat-grass Arrhenatherum elatius F Hairy Brome Bromopsis ramosa O Crested Dogstail Cynosurus cristatus O Couch Elytrigia repens F Soft Meadow-grass Poa pratensis A

# Figure 5. Photographs



Interpretation board



Viaduct Meadow – wildflower grassland



Pond Edge – nettle removal required.



Building – removal of scrub immediately around building (retain some ivy for nesting birds) Friends Group to make a "bat accessible grill" instead of using Heras fencing mesh to cover window.



Hedgerow along footpath to be maintained



Pond 2 – Coppicing of willow recommended.



View south from pond dipping platform



Bramble bank

# 4.0 Site evaluation

- 4.1 The site is small but contains a diverse mix of habitats including grassland, scrub, woodland, ponds and wetlands. Overall, the current management is considered to be good.
- 4.2 Figure 6 illustrates the current distribution of habitats while Figure 7 shows what the management actions aim to achieve.
- 4.3 The site has been dug for clay then infilled with waste, covered with topsoil and used as allotments. The soils therefore are nutrient-rich and support vigorous species such as bramble, stinging nettle, ground-elder and hogweed, which was still evident in 2024. The past disturbance and urban location means that there is a limited seed bank which restricts what species can recolonise naturally. A key management objective therefore is to reduce the dominance of competitive species, particularly nettle and rank grassland, and to encourage a larger area of wildflower grassland through active management.
- 4.4 The site contains several introduced species that are highly competitive although some have biodiversity value. The most significant species are Canadian Goldenrod, which has spread south from Viaduct Meadow and which out-competes the native species, and buddleia, which is a good nectar source for some butterfly species but has a limited value for most other species and is invasive. Canadian Goldenrod is still present today.
- 4.5 The nutrient-rich soils and lack of a seedbank mean that much of the grassland is species poor. Stinging nettle, hogweed and other competitive species can rapidly spread into the grassland and open areas unless actively managed. Patches of species rich grassland have developed where vegetation has been cut and cleared regularly and the seed bank supplemented with wildflower seeding or plug planting. The best area is a small part of Viaduct Meadow adjacent to the footpath. However competitive species continue to dominate much of the remaining open areas and they rapidly recolonise if management is reduced. This is particularly evident in the area surrounding the building in the pond compartment where dense blackthorn scrub has established, shading out the ground flora. A management priority is to reduce some areas of scrub, and the areas of species poor rank grassland and actively create larger, connected areas of species rich grassland.

# Viaduct Meadow

- 4.6 The regular cutting and clearing of the main open areas has allowed a more varied flora to establish, particularly to the south of the path. Regular removal of the Canadian Goldenrod before it has set seed has controlled its spread and allowed other species to establish. The planting of wildflower plugs has increased the species diversity, which increases the visual amenity of the area as well as providing more nectar sources for invertebrates.
- 4.7 Topsoil in Area 1 was removed in 2009 and had some benefit although a patch of horseradish has colonised, which is being actively removed.
- 4.8 The area up to the railway line is still dominated by stinging nettle and it is recommended that it is scraped as well. It will be necessary to continue to cut these areas at least twice a year to benefit less competitive species. The cut material needs to be raked off to reduce the build-up of leaf litter and minimise nutrient build up.

4.9 Wildflower seeding has been carried out in 2024 and will also be continued in 2025. A digger has been used to scrape some areas

# Central woodland area

- 4.10 The habitat management in this area was not a priority initially with most of the focus being on the ponds and grassland. Coppicing of hawthorn began in 2009 and has been successful with good levels of regrowth. Since 2015 coppicing has continued in conjunction with successful planting of tree whips to add diversity in structure and species composition.
- 4.11 Close to the cycleway are open areas dominated by nettles and brambles. These detract from visual amenity of the site. Planting with additional tree and shrub species is being carried out to increase the area of woodland or managed as grassland. This has been started in part, three further areas are due to be worked on in this plan This has been a key management focus in previous plan periods and should continue in this plan.
- 4.12 Bat boxes were installed in clusters of three on a silver birch tree in the woodland and Poplar within the wetland area in 2023.

# **Twisty Thicket**

- 4.13 The uncoppiced areas of scrub are generally mature, with little new growth being present. There is a limited understorey beneath the dense canopy; dense ivy on the ground is suppressing other species. The more open areas are covered by dense leaf litter from plants such as stinging nettle suppressing less competitive species.
- 4.14 Managing the scrub by coppicing will open up views across the site and improve the age structure of the stands. Coppicing should be carried out in small blocks on a rotation. Larger cut material should be retained to provide additional habitat. This is undertaken in small areas every year
- 4.15 The estate team will continue coppicing work started by the volunteer group. Additionally, gradual removal of Ivy will be carried out to increase the light getting to ground flora.

### **Bramble Bank**

4.16 Removal of bramble was started and prioritised in 2024. This area is dominated by bramble and rotational cutting will continue on a three-year cycle to maintain its value as a habitat. Removal of roots of bramble and small trees will be important to allow an open species rich area to develop. It will allow it to provide cover without developing dense, dead areas.

### **Bluebell wood and Dingley Dell**

- 4.17 The larger sallow trees have been coppiced as a priority for safety reasons. These areas link with a more wooded section of the railway embankment thereby forming a larger wooded block.
- 4.18 Since 2015 some coppicing of the willow was carried out for safety reasons. There are more open areas into which species such as oak, hazel and alder can be planted to improve the habitat value. Buddleia establishing in this area should be removed as it is highly invasive and of limited ecological value.

### The ponds

- 4.19 The pond area is separated from the rest of the site with a palisade fence which is locked and only accessible to Chelmsford City Council, Friends Group or by appointment.
- 4.20 The ponds were dug out in 2010 and 2018 and it is not considered they will not require significant management over the period of this plan. Pond 2 is becoming shaded. Some trees on the southern edge could be removed or reduced. This is low priority therefore should be carried out as budgets allow.
- 4.21 It will be necessary to maintain the extent of the reeds in both ponds to retain areas of open water.
- 4.22 It is necessary for the marsh grassland area to be cut on a two-year cycle to ensure that trees do not establish but to allow rushes etc to develop.
- 4.23 The species rich grassland to the west of the main pond has disappeared since the previous plan. A focus of this updated plan is to restore some of this area to grassland, by removing some scrub and managing invasive nettle that colonises.
- 4.24 Shrub planting has been undertaken in the south-western corner of the site. These provide an important mix of habitat that complements the adjacent ponds, providing terrestrial habitat for amphibians and other species.
- 4.25 The tree belt on southern boundary is an important visual screen to the adjacent residential area. It would benefit from some thinning to benefit the remaining trees and allow more light in. The hedge beside the cycleway will be maintained outside nesting season as required.
- 4.26 It is recommended that any vegetation including ivy growing around the west facing window of the building is removed to provide wildlife, including bats with a clear access point. This will also benefit the building that has "bat bricks" installed. Bat bricks should be inspected by a licensed bat ecologist and cobwebs removed. The Heras fencing should be removed from the west facing window and a grill installed that will make the building accessible to bats.

# Surveys and monitoring

4.27 Currently recording is carried out on site, mainly during practical sessions. More focused monitoring of the key habitat areas is required to determine the effectiveness of the management and to identify any issues that might arise. Professional consultants are engaged to carry out bat surveys as required.

### **Community and Education**

- 4.28 As an urban community nature reserve Marconi Ponds provides great opportunities for engaging the wider community in their local wildlife. The management of the site is led by CCC parks They continue to successfully recruit new members and to engage the local youth groups, schools and other interested bodies in the site.
- 4.29 Access improvement works and construction of a pond-dipping platform has made the site suitable for environmental education and this is being actively encouraged now. Up to 170 young people have visited

the site each year from local schools and youth groups to use it for environmental education. As part of the parks volunteer programme outreach sessions for schools and colleges are run on the site

# Budget

- 4.30 In 2004 the Council received £80,000 as commuted sum under a Section 106 agreement ffrom the adjoining development, which was to develop the site. This funding ended in 2010 since when the Friends of Marconi Ponds obtained several grants and donations. CCC have always also funded the site and continue to do so as part of their parks volunteer and sites programme
- 4.31 In 2015 the Friends received a large legacy that helped fund works identified in the the previous plan. scheme. The Friends have made a donation from their funds that is only to be committed to this project and site on handback to CCC.

# Figure 6. Habitat plan



# Figure 7. Management aspirations



# 5.0 Protected species constraints

- 5.1 The site contains a good number of bird species. Kingfishers have been occasionally recorded using the southern section of the pond since 2003. Grey Heron and a range of waterfowl have also been recorded.
- 5.2 A formal presence/absence reptile survey in 2024 recorded good numbers of slow worm. Common lizard, common toad and common frog have continued to be recorded. A number of froglets were identified during surveys in 2023/2024.
- 5.3 Badgers are known to use the site.
- 5.4 Two species of bat were recorded by Hybrid Ecology in 2023; common pipistrelle and soprano pipistrelle. Bat boxes were installed on trees in 2023.
- 5.5 Several species on the site have Priority Species status, and many are legally protected. This has an influence on management actions and seasonality, particularly for nesting birds.

# Management restrictions:

- Management of established vegetation, bramble scrub, trees and removal of aerial ivy to be avoided between March and September inclusive unless the vegetation in question has been thoroughly checked for active nests first.
- Hedgerow management to be restricted to winter months.
- Trees with holes or any kind (woodpecker holes, wounds, flaking bark etc.) must not be felled unless they have first been checked (by a suitably experienced ecologist) first for roosting bats.
- No machinery to be used on grassland areas, hand tools only to protect reptiles.
- Bat bricks to only be moved, cleaned or checked by an ecologist with bat licence.
- Pond management to be undertaken during the winter months only.
- Mammal burrows encountered should be left undisturbed. No machinery to be tracked within 20 metres of a confirmed badger sett.
- Dismantling or relocation of log piles to be avoided during the winter months to avoid harming hibernating wildlife.

# 6.0 Objectives

6.1 The overarching aim for managing this site is to maintain and enhance the mosaic of open grassland, woodland, scrub and standing water on the site.

# Management objectives

- To manage the variety of habitats within the site to maximise their biodiversity value.
- To maintain active community involvement in the site, led by the Friends of Marconi ponds.
- To continue to use the site for environmental education.
- To maintain public access within the main site (excluding the southern section which is padlocked and open to the friends group/by appointment only).

# Specific Objectives 2020 to 2025 as specified in previous plan

Specific Objective	Description	Target achievement date
Pond dipping platform.	Replace the existing pond platform with a larger new design.	By the end of 2025. (After Gabion installation. Complete
Gabion pond edging.	Contractor to install Gabions filled with stone to act as a retaining wall for the pond edge.	By the end of 2021. Complete
Continue towards species rich grassland target.	Double the size of the species rich grassland from 0.12 to 0.24 through bramble removal, cutting and wildflower plug planting.	By the end of 2025. Complete
Continue towards woodland target.	Increase the area of woodland by 5%.	By the end of 2025. Complete

# 7.0 Management Operations 2025-2030

# First-year work schedule

Season	Activity	Area(s)	Priority	Recommended months	Additional resources/skills
					required
Unrestricted	Undertake safety inspection of trees on site.	All	High	Unrestricted	Chelmsford City Council
	Path management – grass verge cutting	All	High		
	Path Maintenance – Surface main path with road planings where	All paths	Low/as required		
	needed				
	Prepare for open day	All	Low/as required		
Summer	Cut and clear areas containing hogweed and nettle to height of 150mm	Viaduct meadow, Twisty Thicket,	High	Growing season	Parks volunteers
	with hand tools. Remove arisings.	Bramble Bank, Dingley Dell			
	Annual survey of species-rich grassland to monitor condition	Viaduct Meadow	Low	June/July	Parks volunteers
	Removal/treatment of mares tail. Remove arisings.	Pond/Pond Edge	High	Growing season	As above unless noted
	Dig out bramble and nettle.	All, bi-annual	High	October - December	
Autumn	Annual cut and clearance of all grassland areas, dig out horse radish,	Viaduct Meadow	High	October – December	
	Canadian Goldenrod and bramble roots where possible. Remove				
	arisings.				
	Annual cut and clearance of half of marsh area and remove any golden	Marsh	High	October - December	
	rod/brambles where necessary (alternate half each year). Remove				
	arisings.				
	Monitor condition of hedgerows and infill plant as required.	All	Medium	Autumn/winter	
	To continue to Clear vegetation along bramble bank, removing bramble	Bramble bank	High- bi-annual	Autumn/winter	
	roots where possible.				
Winter	Selectively remove or thin blackthorn around building to enable wildlife	Pond Edge	High	October – February to avoid impacts to active	
	access (including bats). Stack arisings into habitat piles.			birds nests.	
	Maintain hedgerow	Pond Edge	High	October – February to avoid impacts to active	
				birds nests.	
	Coppice one or more willow trees to south of pond 2. Stack arisings into	Ponds	Medium	October – February to avoid impacts to active	
	habitat piles.			birds nests.	
	Hybrid Ecology (or licensed bat ecologist) to inspect and clean out bat	Pond Edge (building)	Medium	September/October or March/April	Licensed bat ecologist
	bricks in building. Remove Heras fence and replace with grill.				
	Remove rushes from the area near the bank and island.	Ponds	Medium	October – February to avoid impacts to active	
				birds nests.	
	Maintain willow tunnel and dome through cutting and weaving into	Ponds	Medium	October – February to avoid impacts to active	
	structure.			birds nests.	

# Annual work schedule

Season	Activity	Area(s)	Priority	Recommended months	Additional resources
Unrestricted	Undertake safety inspection of trees on site.	All	High	Unrestricted	Chelmsford City Council
	Path management – grass verge cutting	All	High		
	Path Maintenance – Surface main path with road planings where	All paths	Low/as required		
	needed				
	Prepare for open day	All	Low/as required		
Summer	Cut and clear areas containing hogweed and nettle to height of 150mm	Viaduct meadow,	High	Growing season	
	with hand tools. Remove arisings.	Twisty Thicket, Bramble Bank, Dingley Dell			
	Annual survey of species-rich grassland to monitor condition	Viaduct Meadow	Low	June/July	
	Removal/treatment of mares tail. Remove arisings.	Pond/Pond Edge	High	Growing season	
	Dig out bramble and nettle.	All, bi-annual	High	October - December	
Autumn	Annual cut and clearance of all grassland areas, dig out horse radish,	Viaduct Meadow	High	October – December	
	Canadian Goldenrod and bramble roots where possible. Remove				
	arisings.				
	Annual cut and clearance of half of marsh area and remove any golden	Marsh	High	October - December	
	rod/brambles where necessary (alternate half each year). Remove				
	arisings.				
	Monitor condition of hedgerows and infill plant as required.	All	Medium	Autumn/winter	
	To continue toClear vegetation along bramble bank, removing bramble	Bramble bank	High- bi-annual	Autumn/winter	
	roots where possible.				
Winter	Maintain hedgerow	Pond Edge	High	October – February to avoid impacts to active	
				birds nests.	
	Remove rushes from the area near the bank and island.	Ponds	Medium	October – February to avoid impacts to active	
				birds nests.	
	Maintain willow tunnel and dome through cutting and weaving into	Ponds	Medium	October – February to avoid impacts to active	
	structure.			birds nests.	