



HOLYWELLS PARK, IPSWICH

10YR MANAGEMENT AND MAINTENANCE PLAN

2013 - 2023



FRIENDS OF
HOLYWELLS PARK



Holywells Park, Ipswich

Management and Maintenance Plan 2013-2023
January 2013

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January 2013
Holywells Park, Ipswich

Contents

Foreword.....	I
1.0 Introduction.....	2
1.1. Description of the Park.....	2
1.2. Other Documents.....	2
1.3. History of the Park.....	2
1.4. Restoration Project.....	3
2.0 Where are we now?.....	7
2.1. Overview.....	7
2.2. Policy Context.....	7
2.3. Site Description.....	8
3.0 Where do we want to get to?.....	11
3.1. Assets, Visions and Objectives.....	11
3.2. Assessment and Analysis.....	15
4.0 How will we get there?.....	17
4.1. Work Plans.....	17
4.2. Finance and Resources.....	17
4.3. Modern Apprenticeship Scheme.....	17
4.4. Volunteers.....	17
5.0 How will we know when we have arrived?.....	18
5.1. Monitor and Review.....	18
6.0 A Welcoming Place.....	19
6.1. Announcing the Park.....	19
6.2. Access – Physical.....	19
6.3. Access – Social.....	20
7.0 Healthy, Safe and Secure.....	21
7.1. Health and Well-Being.....	21
7.2. Security in the Park.....	21
7.3. Towards a Safer Park.....	21
7.4. Health and Safety Policies.....	21
7.5. First Aid.....	22
7.6. Control of Dogs.....	22
7.7. Play and Safety.....	22
8.0 Well Maintained and Clean.....	23
8.1. Litter and Waste Management.....	23
8.2. Grounds Maintenance.....	23

January 2013

Holywells Park, Ipswich

8.3.	Building Maintenance	23
8.4.	Infrastructure and Other Facilities	23
8.5.	Equipment Maintenance – Staff	24
8.6.	Equipment Maintenance – Public	24
9.0	Sustainability	25
9.1.	Environmental Management	25
9.2.	Pesticides	25
9.3.	Materials	25
9.4.	Resource Conservation and Waste	25
9.5.	Recycling	25
9.6.	Horticultural and Arboriculture Management	26
9.7.	Pollution Reduction	26
9.8.	Water Efficiency	26
9.9.	Energy Efficiency	26
9.10.	Air Quality	26
9.11.	Low Emission Machinery and Alternative Fuels	27
10.0	Conservation and Heritage	28
10.1.	Natural Conservation Value of the Park – Wildlife, Habitats and Biodiversity	28
10.2.	Wildlife Management Plan	28
10.3.	Current Designations	29
10.4.	Natural Landscape Character	29
10.5.	Cultural Landscapes - Archaeology	31
10.6.	Art in the Park	33
11.0	Community Involvement	34
11.1.	Patterns of Use	34
11.2.	Community Involvement	34
11.3.	Facilities	34
11.4.	Children’s Play	35
11.5.	Educational Facilities	35
11.6.	Open4all	35
12.0	Marketing	36
12.1.	Information Provision and Interpretation	36
12.2.	Events in Holywells Park	36
13.0	Management	39
13.1.	Public Service	39
13.2.	Personnel	39
13.3.	Quality Systems, Management Plans and Policies	39
13.4.	Financial Management	39

3361

January 2013

Holywells Park, Ipswich

13.5. Implementation	40
14.0 Appendices	
Appendix 1	Landscape Character Areas – Plan
Appendix 2	Maintenance Tasks and Frequency Plan – General Tasks
Appendix 3	Management Action Plan 2013 Onwards and Items Completed since 2009
Appendix 4	Maintenance Specifications
Appendix 5	Cost Plan
Appendix 6	Parks and Open Spaces Vision
Appendix 7	Planning Policy Context
Appendix 8	Parks and Open Spaces Operational Plan 2012/13
Appendix 9	Risk Assessment Report, Pond 2, Holywells Park, Ipswich
Appendix 10	Play Area Daily/Weekly Visual Inspections Sheet
Appendix 11	Wildlife Management Plan
Appendix 12	Ecology Report, November 2012
Appendix 13	Tree Management Strategy
Appendix 14	RIGS Designation
Appendix 15	Chronology of the Park
Appendix 16	Historic Facts of Holywells Bowling Club
Appendix 17	Park Byelaws
Appendix 18	Park Management Structure

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January 2013

Holywells Park, Ipswich

Foreword

Holywells Park has been one of Ipswich's hidden secrets for many years. For over 75 years the park has been a place for the local community, both young and old, to enjoy its unique landscapes and celebrate its historic background.

This historic park boasts many unique features and varied landscapes from its famed spring fed lakes and streams to its Victorian parkland with formal gardens.

The park has been designated a County Wildlife site in recognition of its rich biodiversity within the 28 hectare site.

The park boasts a passionate Friends group who work tirelessly to improve visitors experiences and help raise general awareness about the importance of wildlife conservation.

The vision statement in the park management and maintenance plan reinforces the Council's commitment to restoring and enhancing the park's rich heritage, biodiversity and visitor experience for the benefit of current and future generations.

Councillor Bryony Rudkin (Portfolio Holder – Culture and Leisure Services)

January 2013
Holywells Park, Ipswich

1.0 Introduction

“The close association between a designed landscape/park and the commercial extraction of water for brewing seems particularly unusual.....” (Garden History Society)

1.1. Description of the Park

Holywells Park is one of the finest parks in Ipswich. The 70 acre (28 hectares) historic parkland estate is well located approximately one mile south-east of the town centre immediately adjacent to the new waterfront development and the emerging University College Campus. The site is roughly triangular in shape, with the blunted apex of the triangle forming its northern end. Within this boundary the topography of the park forms a bowl-shaped valley with a wooded rim that still exhibits remnant heathland vegetation around the high eastern edge. The prominent features within the valley are the moated site and a spring fed system of ponds, where the running water provides an attractive focus and a continuous sense of movement at the centre of the park.

Holywells is bounded on three sides by residential roads – Cliff Lane to the south, Bishops Hill and Myrtle Road to the northeast and northwest, and Nacton Road to the east. On the western boundary, the park is bounded by light industrial units off Holywells Road, and the current residential development on the historic docks area.

The service entrance to the Park off Cliff Lane brings the visitor past the old Stable Block and now forms the main entrance to the park for visitors and parks service vehicles alike; it also carries the way marked cycle route through the park where it emerges at the formal entrance at Myrtle Road.

The Park has its own unique appeal, which is very much community based; it offers good recreational facilities recently improved by the new play facility and water play area and more traditional outlets provided by the bowling greens. The park is also used for informal games of cricket and football. There is also a strong focus on the passive enjoyment of the parks scenery and unspoilt landscape, particularly its mosaic of ponds, open spaces and woodland walks.

1.2. Other Documents

A number of relevant documents are appended to this report.

In particular this report should be read with the Wildlife Management Plan (Appendix 11) and the Tree Management Strategy (Appendix 13).

1.3. History of the Park

Holywells Park has a long established history, which reaches back perhaps as far as the early Norman period when it is thought the land was bestowed on the clergy by William the Conqueror. The earliest records detail the area of *Hollowells* as forming part of the manor of

January 2013

Holywells Park, Ipswich

Wyks Bishop, which was held from the crown by the bishopric of Norwich in the 13th century and passed down until the manor was surrendered to the crown in 1535. Subsequently, the land passed through a succession of owners including the Jermy, Hewitt, Barnardiston and Cobbold families. The Cobbold family made their first purchase of land in the Holywells area in 1749 and gradually acquired further lands, and the title of lordship of the manor, throughout the years and it remained Cobbold property until 1929. The Town of Ipswich stands on a chalk basin overlaid in various places with beds of clay, crag, sand and gravel. Formerly, various streams flowed through the town, fed by springs from the surrounding hills. Examples of these numerous springs can be seen in both Christchurch and Holywells Parks. The town dates back to the earliest periods of the English settlement and was probably among the first to develop outside the former Roman towns of Britain. The early development of the town has been described by the County Archaeologist at Suffolk County Council (1), and researched more thoroughly by the documentary historian Anthony Breen (2), as part of the Project Planning Development work for the park in 2005.

Land Acquisition and Development - A full description of the transactions affecting the growth and development of the parkland estate can be found in the original Restoration Plan document (1999). The earliest recorded ownership of Holywells by a bishop is in the reign of Richard I who gave this manor to John of Oxford, Bishop of Norwich. The manor entered the ownership of the Cobbold family in 1789 when Thomas Cobbold purchased it. Holywells remained Cobbold property until the death of John Dupuis Cobbold in 1929. In 1935 Holywells was purchased by Sir Arthur Churchman, Lord Woodbridge (of the Churchman family, prominent tobacco merchants). In his capacity as High Steward of Ipswich, he gifted the park to the Borough on 21st September of that year. In the same year a paddling pool and two bowling greens were installed in the park on the site of pond no 5 and the site of the old tennis courts respectively. The main house was demolished due to dry rot in 1962 leaving the Orangery and the stable block as the remnants of the private estate.

1.4. Restoration Project

During the late 1990's it was felt that the general condition of the Park's fabric and the major elements within it were at a critical stage where major capital investment was required to prevent an inevitable slide into disrepair and further degradation of some of the more notable heritage features. Over the last few years the park has been the subject of renewed attention with a focus on its future. The Council was advised in 2003 that its collective application for the town's three major historic parks - Chantry, Christchurch and Holywells was not successful and only Christchurch could be taken forward at that stage. However the Council received a project planning grant for developing a restoration project in Holywells Park and a set of condition reports were commissioned and delivered in 2005; the body of works comprised. Again this bid was unsuccessful.

An updated HLF Parks for People bid was submitted August 2011 to coincide with the Park's 75th Anniversary year. In December 2011 the Council was informed that the Round 1 application had been successful.

In 2012 a team of consultants were appointed to develop the proposals and to submit a second round application to the HLF. The second round application is due to be submitted in February 2013.

January 2013

Holywells Park, Ipswich

1.4.1. Restoration Proposals

The aims of the restoration project were defined as follows:

- To protect, restore or recreate the principle components of the 11th Century and 19th Century development phases particularly the complex of medieval water bodies that run through the park; the formal gardens that adorned the area around the mansion during the Cobbold era and the Bishops Wyke landform.
- To protect, restore or recreate historic landscape features of importance such as the terrace and the early 20th Century formal gardens near the former site of 'Holywells House'.
- To encourage greater awareness of the rich biodiversity that Holywells Park has to offer.
- To remove or re-design later features which have had an adverse impact on its historical qualities. The harsh lines of the paddling pool have now been removed from the line of the natural pond system to help restore a smooth flowing landform, that have defined the parkland landscape since the early 1800s.
- To encourage greater awareness of the historical significance of Holywells as one of the town's major historic parks.
- To ensure that proposals reflect the needs and wishes of the community and that they will be sustained in the long term.
- To improve general security in the park.
- To improve the neglected fabric and infrastructure of the Park, including footpaths, woodlands, toilet facilities, furniture and signage to accommodate modern usage patterns.
- To ensure that the proposals are achievable and sustainable in meeting the needs and wishes of the wider community in the longer term.
- To encourage increased awareness of the historical significance and attributes of the Park.
- To provide a contemporary setting for the future management of the Park as a vibrant and essential component in the communal life of the town.
- To improve access and learning opportunities by upgrading and enhancing interpretation, facilities and infrastructure.
- To increase the number of people taking part in activities and events within the Park and increase opportunities for involvement.
- To use Park resources to increase the number of people gaining skills, knowledge and understanding from courses and activities organised by the Park management and external partners.

The restoration project will include the refurbishment of the stable block and the orangery. After the completion of this work the park will benefit from a range of facilities including a refreshment facility, new interpretation and modern toilet facilities which will enhance the visitor experience in the park.

January 2013

Holywells Park, Ipswich

The Stable Block

The Stable Block Visitor Centre will provide accommodation for the following activities:

Grounds Maintenance

- The operational base for Park management including staff toilets.
- Delivery and collection point for goods and services required for the effective and timely management of the Park's facilities.
- Meeting point for volunteer work parties and other practical events involving visitor groups. The meeting point will now be in the Leafyard.

Management

- Office for a Park Manager.
- Base for part-time Park Patrol staff in the evening and at weekends.
- Visible and accessible facility for visitors requiring information about the Park and/or personal contact with staff responsible for the facilities.
- Reception for organised activities, formal gatherings and community events connected with recurring diary dates (e.g. Friends Group, Project Board meetings, park promotional events, etc.).

Visitors

- General reception and enquiry point with good quality serviced toilet facilities.
- Information point and interpretative facility.
- Opportunity to use part of the restored carriage shed as activity/meeting spaces for all types of groups and organisations, exhibitions, displays, public consultations, meetings, talks and presentations.
- Opportunity for refreshments in the new café area situated in part of the restored carriage shed. This facility will provide tea, coffee and sandwiches for park visitors.
- Exhibition and interpretation areas based in the Stables to the north of the courtyard, the Tack Room in the east wing, and use of the education space for temporary exhibitions and displays.
- Toilet facilities will be provided with male, female and accessible units. A Changing Places facility will also be provided. This will allow the severely handicapped and their carers to enjoy a visit to the park.
- Genesis Orwell Mencap will be based in one of the southern stables for the sale of cycles and will have a purpose built workshop constructed in the south storage yard for restoring salvaged cycles.
- Additional, more adaptable and fit-for-purpose indoor space to supplement the outdoor classroom available in the Park.
- Outdoor meeting point in the courtyard with informal seating from where visitors can relax with refreshments.

January 2013

Holywells Park, Ipswich

The Orangery

The Orangery will provide accommodation for the following activities:

- Light, simple refreshments.
- Horticultural demonstration.
- Events such as weddings and exhibitions.

The Leafyard

Some park management staff will be housed in the Leafyard together with accommodation for the Friends of Holywells Park. Park maintenance vehicles, plant and materials will also be stored in the Leafyard.

January 2013

Holywells Park, Ipswich

2.0 Where are we now?

2.1. Overview

Ipswich has a rich heritage of historic parks; the major ones - Chantry, Christchurch and Holywells were part of a multiple application to the Heritage Lottery Fund in 2002. In many ways Holywells has been a hidden green lung in the centre of the Town. The growth in residential property as part of the waterfront development has created a larger number of potential visitors and a greater expectation of the facilities available in the vicinity. Holywells transferred from a private estate to Public Park in 1935. The Stable Block and the Orangery are the only surviving structures following the demolition of the main house in the early 1960s and have been part of a shared experience for the local community; it is expected that a restored park will also become a valued asset for tourists and visitors to the town.

Over the period 2006 -2008 a number of key facilities within the Park have been improved or repaired for the benefit of the local community. The investment has allowed for the provision of a new play facility and interactive water feature. The latter makes effective use of the same spring water that provided the key ingredient to the Tolly Cobbold brewing industry and still runs at a constant level throughout the year.

The Town's major parks and open spaces are a valuable asset and make a positive contribution to the quality of life of the people who use them. It is envisaged that the improvements planned at Holywells Park will have a beneficial effect on the local community by enabling local understanding and community cohesion, increasing opportunities to improve health through sport and play, raising environmental and cultural awareness and encouraging learning and personal development. All these aspects are integral to helping deliver the Council's main vision set out in '*Building a better Ipswich*', and the guiding principles of delivering quality services for the people in the town.

2.2. Policy Context

The restoration project supports the Borough Council's policy of *Building A Better Ipswich* and the delivery of quality services for the people of Ipswich. There are links to the following *Building A Better Ipswich* objectives.

- **A fairer Ipswich:** The proposals have been developed in consultation with local communities and integrate principles of equality and diversity.
- **Value for money:** A budget has been defined and the proposals have been designed to be affordable within that budget. A procurement route will be chosen in accordance with Council policies. The project will be tendered competitively and tenders assessed for quality and price.
- **A stronger Ipswich economy:** The restoration project will create jobs and where appropriate will use local suppliers.
- **A safer and Healthier Ipswich:** The project has been designed incorporating safer by design principles. The project will encourage active and passive recreation.
- **Keeping Ipswich moving:** The project will encourage the use of cycles, walking and public transport.

January 2013

Holywells Park, Ipswich

- **A greener Ipswich:** Principles of sustainable design, energy efficiency, water conservation and promotion of biodiversity have been incorporated within the design proposals.
- **A more enjoyable Ipswich:** The project will promote the enjoyment of Holywells Park and open spaces generally. A greater range of public events will be hosted at the park.

The Ipswich Landscape and Wildlife Strategy (2004 – 2006) identified the need for significant capital investment in Ipswich’s Historic Parks and this project represents a significant investment in the park’s facilities. A draft Parks and Open Spaces Strategy currently in preparation will identify similar requirements and promote future investment in the fabric of the town’s historic parks on the basis of a recent needs assessment survey.

2.3. Site Description

Holywells Park is roughly triangular in shape and covers an area of approximately 28 hectares (70 acres). The Park is essentially a bowl shaped valley with a wooded rim that still shows evidence of a remnant heathland vegetation along its eastern edge. The main feature of the parkland landscape remains the pond system, which has been a strong visual feature; they have also been the mainstay of local industry providing water for the brewery on Cliff Quay.

2.3.1. Landscape Character Areas

The Park has been divided into six Landscape Character areas initially for the purposes of the Restoration bid and these areas have subsequently been used to help develop the vision for the maintenance of the park over the next ten years. These areas are indicative of the natural and manmade features within them and are shown on the map in Appendix 1.

1. Holywells House and Gardens
2. Parkland Core
3. Bishop’s Wyke
4. Eastern Woodland
5. Canals and Pond network
6. Nature Conservation Area.

1. Holywells House and Gardens

This part of the park is characterised by the remaining structures from the former Cobbold estate; the main house was demolished in 1963. The formal layout of the walled garden (on the site of the old house) and the presence of the Orangery and Stable Block clock tower help to recall the original splendour of ‘Holywells House’ and its gardens as they appeared in John Dupois Cobbold’s day but now lack the scale and grandeur associated with this period. Some of the formal park landscape was lost to redevelopment and the construction of the Margaret Catchpole Public House in 1936.

January 2013

Holywells Park, Ipswich

2. Parkland Core

The landscaped core that formed the setting for Holywells House has largely retained its spatial integrity, although the degree of ornamental planting has clearly declined from that displayed in early 20th Century photographs. The parkland trees received some losses as a result of the storm in 1987 and gaps in the lime avenue bear testimony to this event. The line of ponds in the centre of the park still show signs of neglect and partially overgrown with vegetation. Some work was carried out in 2007 to refurbish the moat and adjacent pond with the removal of sediment and the concrete form of the old paddling pool that had occupied the site of the 'finger' pool in the lower part of the pond system. The moated site now accommodates the new play facility after further archaeological investigation work revealed that the area showed no signs of disturbance or earlier settlement.

3. Bishop's Wyke

The supposed site of the Manor WIX EPISCOPI has undergone archaeological investigation as it was believed to be the first recorded settlement in Holywells. The findings of this study were inconclusive, although some old wooden pipes were discovered within the surrounding ditch during recent desilting and scrub clearance work. Now the restoration work is complete here, it enables one to appreciate the heritage of this historic feature. As part of this process the children's playground was recently rebuilt and, despite its scale, is partially screened by the dense vegetation that surrounds Bishops Wyke.

4. Eastern Woodland

The area is characterised by stands of semi-mature and mature oak, poplar, holly and Scots pine. Clearance work by the Wildlife Rangers and volunteers has opened up the prospect of the high level ponds. The area also suffered losses in the 1987 storm and there has been some replanting and clearance of lost trees and sycamore as a result; further vegetation management is continuing within the Park as part of the winter work programme.

5. Canal and Pond network

The deterioration of the Big Pond and the Canal has changed the wildlife value of the Park. Recent sediment removal from the canal has gone some way to improve this situation. However the view over the Big Pond from the eastern bank is still dominated by fallen trees, debris and the poor quality of the park boundary with low value views out of the park. It is expected that some of these problems will be addressed as part of the main capital works within the project.

6. Nature Conservation Area (Old Orchard—New Orchard—Wildflower Meadow)

The three rectangular spaces of planting that define this area give it a distinctly rural feel. Divided by hedgerows and dedicated to mixed cultivation, the Old Orchard is the oldest of these three areas and retains its original boundaries (first shown on White's -1850 map) whereas the Wildflower Meadow and New Orchard were still used as meadowland up to the time of Borough ownership in 1935.

2.3.2. Park Compartment Plans

For the purpose of the Wildlife Management Plan the Landscape Character Areas are subdivided into a further total of 20 compartments (labelled as A – T). These are shown on

January 2013

Holywells Park, Ipswich

the plan in Appendix 1. Each compartment has a detailed Wildlife Management Plan which contains an ecological evaluation, management priorities and the prescriptions required to meet them.

January 2013
Holywells Park, Ipswich

3.0 Where do we want to get to?

Holywells Park – A Vision for the Future

Holywells Park is a green oasis close to the town centre and a demonstration of how sensitive management of a vital open space in an urban setting can provide a sanctuary both for people and for wildlife in a sustainable, cost-effective and imaginative way.

Enter into the wooded fringe where the air quality, birdsong and rustle of leaves transport you to a rural forest. Move through the trees and you enter the open, light and welcoming heart of the park where people of all ages can play and picnic. Wander the mown paths through long grass to managed recreational areas near clear water courses and natural ponds abundant with wildlife.

Our vision for the future is for Holywells Park to keep this unique atmosphere while enabling the most to be made of its extraordinary rich qualities: its heritage, its bio-diversity, its varied landscapes and its role as a place to play.

Holywells Park will be a beacon for the future. It will show how buildings may respect and enhance their past, while finding new, imaginative and sustainable uses today. It will be a place where wildlife thrives in its rich diversity and where people are encouraged to learn and respect the wildness on their doorstep. It will welcome play-seekers of all ages and provide the opportunity for people to enhance their own health and wellbeing by using and becoming involved in the park's activities.

3.1. Assets, Visions and Objectives

The six landscape character areas and twenty park compartments described in Section 2 provide a framework for the restoration and future maintenance of this historic and biodiverse landscape setting. The management objectives should aim to maintain and enhance the historic landscape; heritage features (particularly the built fabric of the Park) and biodiversity in accordance with the vision for each setting, ensuring that the key assets and fabric of the Park are protected for the enjoyment of current and future generations. This section should be read in conjunction with the detailed descriptions and management regimes described in the wildlife management plan (appendix 11).

Character Area 1 – Holywells House and Gardens	
Significant features	<ul style="list-style-type: none"> • Stable Block • Walled Garden • Bowls Green • Terrace • Orangery
Vision	<ul style="list-style-type: none"> • To maintain and enhance the quality of the landscape setting to the heritage features. • To create a high quality sense of arrival at each entrance to the Park.
Management priorities	<ul style="list-style-type: none"> • Develop additional horticultural interest through dedicated maintenance and new planting

January 2013
Holywells Park, Ipswich

	<ul style="list-style-type: none"> • Provide an attractive and secluded space within a formal garden allowing scope for developing new views across the open parkland.
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Character Area 2 - Parkland Core	
Significant features	<ul style="list-style-type: none"> • ‘Discovery’ Play Area and Interactive Water Play Facility • Bishops Wyke • Bridge • Carriage Drive • Parkland landscape – open grass and specimen trees
Vision	<ul style="list-style-type: none"> • Maintain key historic landscape features. • Retain sense of space and arrival in the historic core of the Park. • Attain equilibrium between the amenity and recreation needs and the ecological needs and desires for enhancement of biodiversity.
Management priorities	<ul style="list-style-type: none"> • Maintain play area and landscaped setting of the parkland landscape in a clean and welcoming condition. • Ensure semi-natural pond system is managed to balance the needs of people and wildlife • Ensure display boards and park furniture are maintained to a high standard. • Maintain a varied management regime for the various trees. • Establish the long grass islands around some of the notable trees and retention of lower branches.
Park compartments	<ul style="list-style-type: none"> • T

Character Area 3 - Bishop’s Wyke	
Significant features	<ul style="list-style-type: none"> • ‘Discovery’ Play Area and Interactive Water Play Facility • Bishops Wyke
Vision	<ul style="list-style-type: none"> • Maintain key historic landscape features. • A moat that is also reasonably open and with a sunny aspect, thus maintaining a healthy plant populated water body that can provide a home to a diverse range of species.
Management priorities	<ul style="list-style-type: none"> • Maintain play area and landscaped setting of the parkland landscape in a clean and welcoming condition. • Surveys to ascertain flora and fauna species • Maintain trees to screen the play area from the majority of the surrounding areas • Dredge north side of the canal
Park compartments	<ul style="list-style-type: none"> • M

January 2013
Holywells Park, Ipswich

Character Area 4 - Eastern Woodland	
Significant features	<ul style="list-style-type: none"> • Pond r • Nature Trail
Vision	<ul style="list-style-type: none"> • To protect and increase biodiversity. • To restore the wetland garden stream. • Create an interesting landscape feature within the Dell with a somewhat exotic feel, to build upon past use of the site. • To provide an opportunity for school groups to learn about the Park. • Improve the structural diversity of the woodland to encourage an increase in flora and fauna. An increase in viable habitat for wildlife will also be achieved through a relaxed mowing regime and increased planting. • Maintain the open water habitat of the stream and manage wet meadow habitat appropriately (compartment K). • Maintain the balance between the needs of public recreation and wildlife.
Management priorities	<ul style="list-style-type: none"> • Maintain key horticultural features. • Develop additional horticultural interest with new planting in the Dell Area. • Rotational coppicing of the Willow that have grown up around the Dell. • Removal of fallen trees within the Dell. • Maintain historic views over the parkland. • Enhance the wildlife habitat. • Active management to secondary woodland to improve structural diversity and benefit native trees. • Secondary woodland in compartment H: increase structural and species diversity through targeted coppicing that will favour native tree species.
Park compartments	<ul style="list-style-type: none"> • F,G, H, I, K

Character Area 5 – Canal and Ponds	
Significant features	<ul style="list-style-type: none"> • Canal • Ponds • Nature Walk
Vision	<ul style="list-style-type: none"> • Maintain diverse range of habitats. • Encourage greater use of the area. • To maintain the open water habitat of the canal by strategic coppicing along both sides and dredging operations.

January 2013
Holywells Park, Ipswich

	<ul style="list-style-type: none"> To maintain the ponds as a key feature of the park.
Management priorities	<ul style="list-style-type: none"> Maintain key horticultural features. Maintain historic views over the parkland. Enhance the biodiversity of the area by maintaining the undisturbed character and by increasing habitat structural diversity. Maintain the landscape history through the preservation of the pond, natural spring feature and other historical features. Ensure that pond 2 remains free from too many trees. This will be accomplished by regularly coppicing the solitary Alder to ensure it remains manageable and regularly coppicing the willow that has started working its way in from the east. Dredging to remove excess silt and improve water quality.
Park compartments	<ul style="list-style-type: none"> E, J, L, N, O, P, Q, R, S,

Character Area 6 – Nature Conservation Area (Old Orchard—New Orchard—Wildflower Meadow)	
Significant features	<ul style="list-style-type: none"> Old orchard New orchard Wildflower meadow
Vision	<ul style="list-style-type: none"> To protect and enhance the biodiversity value of the area by maintaining its undisturbed character and by increasing habitat structural diversity. To provide an opportunity for school groups to learn about nature conservation. Maintain and interpret the landscape history by the protection of existing features such as the ponds and fruit trees. Maintain the landscape character by protecting the canopy cover that exists between the Park and the adjoining road. Create an exemplar community orchard that is managed in harmony with nature and as a community space for all to enjoy. In time it is hoped that the orchard will make the transition into a Traditional Orchard, linking in with the Council’s Ipswich wide Traditional Orchard Project.
Management priorities	<ul style="list-style-type: none"> To promote Holywells Park as a sustainable resource for local and wider communities. Define the eastern boundary through continuation of the grassland management. Maintain historic views over the parkland. Enhance the wildlife habitat. Maximise the attractiveness of the meadow to as many

January 2013
Holywells Park, Ipswich

	<p>different types of wildlife as possible - the mowing regime should include areas that are not cut for approximately 3-5 years to benefit small mammals, reptiles, and amphibians.</p> <ul style="list-style-type: none"> • Reduce the amount of aggressive plant species such as Hogweed and Bindweed. • Manage a number of the fruit trees as standard and tall-stemmed, as these offer the best opportunities for wildlife and help to keep a diverse structure in the orchard. • Maintain the meadow as a key wildlife habitat in the Park, by ensuring that correct management and uses are sustained. A key element is education and some on site interpretation will be installed to help promote the meadow and the value of it to the public.
Park compartments	<ul style="list-style-type: none"> • A, B, C, D

3.2. Assessment and Analysis

Quality in Parks and Open Spaces

The Parks and Open Spaces Service through its Service Operational Plan 2012 identify seven broad service aims that support the Council’s policy of *‘Building a better Ipswich’*. The service aims are as follows:

- 1) To focus activity around the Borough’s three flagship parks - Christchurch, Holywells and Chantry making them hubs for the support of the rest of our parks, open spaces and allotments.
- 2) Enable communities to become involved in the management and maintenance of their local park and/or open space by aiding the establishment of park friends groups, management boards and self-run clubs.
- 3) Encourage input and assistance from individuals, the voluntary sector, community payback, business sector and other groups through improved partnership working.
- 4) Work in partnership with colleagues in neighbouring councils and other key stakeholders to ensure that the natural environment and sensitive wildlife habitats are protected from damage, and safeguarded for future generations.
- 5) Promote the town’s parks and open space in order to raise awareness of their leisure and amenity value, heritage interest and high quality landscapes, encouraging use by existing communities and attracting new visitors helping to boost the local economy.
- 6) Organise and facilitate a range of events and activities in our parks and open spaces, improving social inclusion and providing increased opportunity for people to participate in an active lifestyle, addressing health inequalities especially among specific target groups, e.g. children in poverty and the lack of physical activity by 65+ age range.
- 7) Provide cost effective services and invest in staff development and health and safety.

January 2013

Holywells Park, Ipswich

Green Flag Award

Holywells Park was awarded a Green Flag Award in 2012. This is seen as pivotal in delivering quality in green space management. Securing and retaining the Green Flag Award for this park and other major open spaces in the town is a key part of the strategic direction for the service and a method of demonstrating to our customers and service users how we achieve standards of excellence.

The Green Flag judges commented:

“The judges note that the authority is applying for a biodiversity benchmark award. When this is secured it is recommended that thought is given to apply for a Green Heritage Award. (The site is currently at a standard worthy of the reward)”

January 2013
Holywells Park, Ipswich

4.0 How will we get there?

4.1. Work Plans

The appearance and quality of the park landscape before, during and after the improvements can only be retained with the most appropriate maintenance prescriptions; a schedule of current tasks has been attached in Appendix 2. The Action Plan in Appendix 3 identifies the key tasks across a broad spectrum of criteria which when accomplished will collectively deliver improvements to the Park that truly reflect the aspirations and needs of the community. The Action Plan will require approval from the Project Board and will then be circulated to all key staff and stakeholders. It is intended that the Action Plan will be reviewed at six monthly intervals and updated on an annual basis to reflect progress in implementing the key elements of the proposals.

4.2. Finance and Resources

The Park Management Team will use the existing grounds maintenance budget for managing the Park; additional improvements will be possible as and when funding becomes available; these individual projects will be agreed by the Project Board and delivered by contractors, work parties and volunteers, as appropriate to the nature of the work.

4.3. Modern Apprenticeship Scheme

The improvement project provides an ideal opportunity to develop a modern apprenticeship post in conjunction with Suffolk New College, partly to compensate for the skills crisis in the industry and the need to allow for skilled staff retiring from the Park over the next few years and a consequential loss of knowledge and skills. Suffolk New College are very enthusiastic about this proposal and one of their assessors has helped with the existing apprenticeship scheme in Christchurch Park and with appropriate funding, the scheme could be expanded to augment the staffing requirements at Holywells also.

4.4. Volunteers

Holywells Park offers opportunities for members of the public to become involved in the management and maintenance of the park; it is hoped that this will be extended to include volunteers assisting with the staffing of the restored Stable Block and Orangery. The opportunity for augmenting the resources provided from within existing budgets, with committed and enthusiastic volunteers provides scope for delivering project work for the restoration of the Park. A Volunteer Action Plan needs to be developed to cover the training and supervision of volunteers and their contribution to the Action Plan shown in the back of this document.

January 2013
Holywells Park, Ipswich

5.0 How will we know when we have arrived?

5.1. Monitor and Review

The document has a service life of ten years but will be reviewed and updated on a six monthly basis during the life of the restoration project and annually thereafter to reflect visitor feedback and the implications for the future management of the park.

Representatives of The Friends of Holywells Park have provided advice, information and critical observations on the content of the management plan through contact and discussion with the IBC Parks and Open Spaces staff and the consultant team. The Project Board will review and approve the management document. The Friends Group will continue to be consulted and provide feedback via their representatives at the regular meetings of the Project Board.

The targets in the Action Plan will be reviewed annually and progress monitored on a monthly basis or sooner as required. The action plan will use Specific, Measurable, Achievable, Realistic and Time Bound targets (SMART).

Parks and Open Spaces SurveyMonkey system will also be promoted to encourage residents and visitors to give feedback on Ipswich's parks. This format is suitably user friendly and will encourage more visitors to complete the form. The Friends Group will be encouraged to look at this system and identify ways that the survey forms could be used in the Park to gauge visitor feedback on the facilities and views for improvement.

January 2013
Holywells Park, Ipswich

6.0 A Welcoming Place

6.1. Announcing the Park

To help improve the sense of arrival new entrance signs have been installed as part of recent improvements. These signs are similar in design to those installed in Christchurch Park. It is also expected that the park will be suitably signposted from the surrounding streets, which will help to raise awareness of the facility amongst potential visitors in the local community.

6.2. Access – Physical

Holywells has five main entry points around the perimeter, comprising three major and two minor entrances. In part the park is judged by the image projected by the condition and character of each of its entrances. The access points are shown on the Plan in appendix 1.

Myrtle Road

This entrance has a strong formal character defined by the stone pillars and iron gates from where the visitor is taken on an intriguing journey into the park. The small ‘pocket park’ style of open space on the right hand side of the entrance provides an attractive sense of arrival and a useful counterpoint to an otherwise dark and uninviting entrance. The expectation of an open prospect partly hidden by the rising topography to the north and the curving driveway; at this point the surface shows a set detail which has been partly hidden by the more recent tarmac surface. This is the entrance most likely to be used by pedestrian visitors approaching from the waterfront housing and the current University Campus Suffolk development. There should be a reasonable expectation that the importance of this entrance as a point of access to the park will grow in prominence as the links are made with the surrounding residential and educational developments.

Bishops Hill

This is the second main entrance on this side of the park and allows access from the northwest side of the path where this vehicular driveway drops steeply into the park and joins the main driveway-curving round from Myrtle Road.

Nacton Road

This popular entrance provides access into the wooded hillside above the main water bodies in the park.

Cliff Lane

This entrance provides the most access to the park, with informal car parking for approximately 15 cars in an open area almost adjacent to the Stable Block.

Cliff Lane Pathway

The pedestrian path provides an attractive walk into the park alongside the canal and because of its understated nature tends to be less well used and only by regular visitors who know the park well.

January 2013

Holywells Park, Ipswich

6.3. Access – Social

Much of the population in the catchment area of Holywells Park falls within the Gainsborough and Priory Heath Wards; these areas have a large number of residents on low incomes.

The potential to develop the Park's audience and the quality of people's lives at the same time cannot be underestimated and provides a strong argument for further investment in Holywells as a sustainable resource for the benefit of the local population.

The local topography within the Park makes a significant contribution to the character of the site but by its very nature means that there are a number of areas that are not easily accessible for all visitors. The entrances to the Park from Nacton Road and Bishops Hill lead onto steep driveways, which present particular difficulties to the less abled and children's buggies.

January 2013
Holywells Park, Ipswich

7.0 Healthy, Safe and Secure

7.1. Health and Well-Being

Ipswich Borough Council recognises its responsibilities as an employer and service provider to conduct its business in such a way as to ensure, as far as reasonably possible, the Health and Safety of all employees, volunteers, those in its care, and any person using Holywells Park and any of its facilities.

7.2. Security in the Park

The Park is open during daylight hours, seven days a week throughout the year and has CCTV covering the play facility in the moated site. CCTV images are recorded on a 60 day cycle and a live feed will be monitored by the Control Centre in Grafton House. In common with all the other open spaces within the town it benefits from a Park Patrol Service connected by radio to the Patrol Supervisor and the CCTV centre at Grafton House. A good relationship is also maintained with the police officers operating from Ipswich Central Police Station. Any problems concerning aggressive or anti-social behaviour should be relayed to the patrol staff on the ground or reported to the staff at the Stable Block.

7.3. Towards a Safer Park

The Park contains a number of features and facilities that collectively form a focus for activities and visitors to the park, namely the play facilities and the water features. Three specific safety issues are covered more extensively below:

- In 2007 the main route through the parkland linking Cliff Lane and the Myrtle Road entrance became a dual-purpose cycle and pedestrian route through the Park. The route is appropriately signed with cautionary notices and will be monitored for any Health and Safety issues that may arise. Any future extensions to this route in support of the Town's Green Travel Plan will be subject to a further consultation prior to a report being considered by the Council's Executive.
- All the major trees in the Park are identified on the topographical survey undertaken in 2004. In 2012 RPS in conjunction with Tree Officers from IBS carried out an assessment of the trees and woodland and used this to produce a Tree Management Strategy. On those occasions when severe weather and high winds are forecast then the Park Manager will use his discretion in consultation with the Head of Parks and Open Spaces and the Portfolio Holder to close the Park and thereby reduce the likelihood of park users being injured or killed by falling branches and trees.
- Open water safety and the use of appropriate signage has recently been reviewed as part of a RoSPA course attended by staff from Holywells Park. The procedures and open water risk assessments have been revised as a result of this training and an example of one water body included in appendix 9.

7.4. Health and Safety Policies

The Park Manager and staff working within the park will at all times have due regard for the safety of their colleagues and members of the public in accordance with the Occupiers' Liability Act 1984, Health and Safety at Work Act 1974, and all regulations and codes of

January 2013

Holywells Park, Ipswich

practice which supplement the Act, e.g. COSHH, RIDDOR, EC Directives. A copy of the risk assessment for operations undertaken by staff and volunteers will be kept in the Park Manager's office and the staff/volunteer welfare unit, proposed for the Leaf Yard.

Any contractors working in the Park on behalf of the Council must follow safe working practices, and satisfy the Park Manager that their systems of work, plant, equipment and materials are safe and that their staff is suitably qualified, trained, experienced and supervised. The contractor will risk assess operations prior to works commencing and supply copies to the facilities manager before work starts.

7.5. First Aid

In a busy Park there is always the risk of accidents or sudden illness; prompt action from trained individuals can dramatically reduce the seriousness of an incident. It is expected that the Park Manager will obtain/carry a First Aid at Work certificate as approved by the Health and Safety Executive. It is also expected that other staff in the new visitor centre at the stable block will be able to administer first aid as required to injured staff, and will be qualified in first aid to certificate level as recognized by the Health and Safety Executive. (The availability of a defibrillator for use in the Park is a possible option for future consideration).

7.6. Control of Dogs

Dog owners are expected to keep their pets under control within the Park and clear any waste to the nearest bin provided for the purpose in the park. Any incidents involving aggressive dogs and/or animals not suitably controlled by their owners should be reported to the Park Manager or Park Patrol who will take appropriate action. Holywells Park does not currently suffer from irresponsible dog owners and survey data confirms that this is not an area for concern for visitors. The Park currently has four dog waste bins. Control of dogs is covered by the park bylaws, a copy of these will be displayed in the refurbished Stable Block.

7.7. Play and Safety

The equipment in the play area has recently been renewed as part of the restoration project or as part of improvements to the play facility in 2007. The play equipment will be inspected each morning by a Parks and Open Spaces operative and a Plan Inspection sheet completed on each occasion. All defects will be reported as per inspection procedure and dealt with accordingly by IBC's Play Inspector, a registered approved contractor. All completed Play Inspection sheets are logged and kept on record.

The equipment is also inspected by a RoSPA examiner as part of an annual inspection of all sites within the Borough.

January 2013
Holywells Park, Ipswich

8.0 Well Maintained and Clean

8.1. Litter and Waste Management

Bin waste is collected from bins daily throughout the year. This is increased during popular times of the year. It is expected that the Park Manager will work towards a system where bin waste can be divided into two separate groups – recyclable and non-recyclable – using a twin bin. This type of bin is being trialled in Christchurch Park and, if successful will be installed in other Parks in the town.

Collected waste is taken to the leaf yard where it is stored within enclosed skips and is removed by a bin lorry when necessary. This process is under review and will change within the scope of the restoration project and the plans for the woodland dell area. Litter collection is part of every staff member's duty. All employees will be encouraged to collect litter as they travel around the Park, but it is a main duty for the patrolling staff.

8.2. Grounds Maintenance

Holywells Park will carry out grounds maintenance using manual and mechanical means. All staff are trained in the safe use of equipment and daily maintenance through task talks or by machinery suppliers. All work is undertaken in such a way as to cause minimal disturbance to the users of the park facilities whilst maintaining general site cleanliness and leaving task areas free of debris at the end of each working day.

Where it is necessary to store items temporarily on site then materials will be stored tidily, safely and in accordance with good working practices. All rubbish/arising generated as a result of grounds maintenance works shall be removed to a waste disposal area outside the park or chipped and used as mulch if appropriate.

8.3. Building Maintenance

The existing structures are listed on the Council's insurance register. The Council operates a planned maintenance programme with a term contract currently allotted to Ipswich Borough Contracts. IBC Building Design Services (BDS) oversee the repair and maintenance of structures; any work on these listed buildings would be carried out in liaison with the Council's Conservation Officer. At the time of preparing this document the Orangery was protected by a corrugated steel superstructure, which was purchased for the purpose of mothballing the structure until funds were available for a restoration project.

8.4. Infrastructure and Other Facilities

The keys elements in the park that require regular and effective maintenance are the path network and the outfalls from the drainage system into and between the ponds renewed/ refurbished drainage system. The latter cover surface water drainage and has been restored to reflect sustainable urban drainage guidelines and includes the extensive system of ponds' that are a feature in the lower part of the park. The regular maintenance requirements and refurbishment items for the entire pond and path system are identified in Appendices 2, 3 and 4.

January 2013

Holywells Park, Ipswich

8.5. Equipment Maintenance – Staff

The vehicles in the park are leased through the Fleet Manager at Gipping House and maintained from through the workshop in Chantry Park. The play equipment is inspected on a daily basis by the park staff and also examined on a 10-day frequency by the Council's Play Inspector.

8.6. Equipment Maintenance – Public

The seats and bins within the park are the main items of equipment outside the play area and the public buildings that require regular attention. All park furniture should be available for use throughout the year and kept in a fit state by staff in the park. New furniture in Christchurch Park has been treated with Tung Oil, a natural renewable product, and it is expected that this finish will be used in Holywells. Maintenance requirements are limited to a light sanding and re-application every two years.

The play area is inspected by park staff everyday and cleaned before the public are allowed to use the equipment. The water play facility uses spring water on a single throughput cycle which is treated by an ultraviolet system. The waterplay operates from May to September and is commissioned/shutdown through a contract with the installer, SunSafe Systems. During the spring and summer season the site is open daily from 1000 until 1830. The settings and control panel are described in the operational manual kept in the plant room (green container) and timings/jet settings can be adjusted to suit particular requirements. There is a regular water sample/analysis contract with Northumbrian Water for samples taken every three weeks during the season. The nozzles require daily cleaning to remove bird droppings and any other contaminants that may affect water quality.

January 2013

Holywells Park, Ipswich

9.0 Sustainability

9.1. Environmental Management

Ipswich Borough Council and Holywells Park play a role in both the local and global environment. We recognise that environmental protection and enhancement of the landscape, combined with the management of resources and development in a sustainable manner are necessary to enable future generations to meet their own needs, and enjoy an acceptable living environment. Holywells Park has made a commitment to consider the environmental implications of all its actions and decisions, and to act in an environmentally responsible manner. To do this we will be constantly reviewing our processes as part of ISO 14001 Environmental Management standard and IBC'S Environment Strategy as well as looking for ways to improve our environmental performance. Within our remit as an educational resource we will promote awareness of the environment in all that we do. The Park Manager will ensure that all work undertaken in the Park will reflect the requirements of the sustainability criteria.

9.2. Pesticides

Holywells Park is working towards the complete removal of Pesticides from the majority of the Park. The exceptions being the specialist turf areas, paved areas, treatment of Japanese Knotweed, stump treatment of undesirable/invasive tree and shrub species and other pernicious weeds, which retain a need for the application of specialist pesticides. Weed clearance from beds, and from footpaths will be carried out manually. The non-management of grass around trees will replace the previous regime of spraying around the bases of trees. This will have the double benefit of removing harmful chemicals and allowing an increase in the invertebrate communities. The bases around new trees will be mulched with 50mm of leaf or bark mulch to a radius of 500mm from the stem of the tree. Beds and new planting areas will be enriched with natural fertilisers to encourage growth. No peat-based products will be used. Where pesticide use does continue we will try to find alternatives products, which would cause less harm to the local environment.

9.3. Materials

We will look to source all materials ethically and locally where possible. We will also encourage subcontractors to use environmentally sound products and methods. In addition all bedding and shrub plants will be cultivated in peat free compost, where possible.

9.4. Resource Conservation and Waste

All staff and volunteers will be trained to conserve natural resources and identify ways of undertaking projects in a sustainable manner. When possible we will educate the public on ways to conserve these resources also. We will look to remove all wastage of resources.

9.5. Recycling

The Park already makes use of some of the green waste as a planting medium. The rest of the green waste is recycled off-site and where appropriate used for example as log piles in habitat creation.

January 2013

Holywells Park, Ipswich

We are looking to recycle all waste material from the Park; this will encourage visitors to consider how they dispose of their waste.

We will look to recycle materials and litter as part of the restoration and refurbishment of the stable block. We will produce figures for recycling in future years.

9.6. Horticultural and Arboriculture Management

New plants will be chosen for their ability to cope with the local climate as well as their appearance. We will aim to maintain a diversity of plants across the Park to encourage wildlife and reflect the design principles underpinning the recent restoration project. Where possible all shrub/plants considered for future planting schemes will be cultivated in peat free compost.

9.7. Pollution Reduction

We will aim to reduce all pollutants. Where possible we will source only the most environmentally sound machinery and products.

9.8. Water Efficiency

The spring sources in the park maintain a constant flow of water through the pond system and some of these have now been used to provide a water supply (as a single throughput system) to the new waterplay facility. Many areas of the park are naturally well watered because of the abundant spring sources but it is reasonable to assume that these could provide a sustainable source for watering vulnerable areas of planting during hot dry spells.

During periods of drought up to 1000L of water could be abstracted from the pond network per day.

9.9. Energy Efficiency

It is hoped that the restored Stable Block will be able to use renewable energy technology in its daily operation with the opportunity to install a biomass or wood chip boiler. It would also present some economies of scale for the fuel supply with opportunities to develop partnership arrangements with Genesis who are currently investigating the options for recycling their wood waste products from their own workshop. The development of a Building and Environmental Services strategy as part of a possible building restoration project for the stable block will need to consider the use of low carbon technologies and their incorporation where possible in the refurbishment of the Stable Block. There should be an assumption that the Orangery and the Stable Block demonstrate strong eco-credentials and that these design features will add value and interest to the park as an educational resource.

Work will be undertaken to review any other areas of energy consumption within the Park to reflect this high standard.

9.10. Air Quality

Despite its location near the centre of the town the air quality within the Park remains good. We will monitor and review air quality annually.

January 2013
Holywells Park, Ipswich

9.11. Low Emission Machinery and Alternative Fuels

Consideration will be given to the use of electric vehicles for park maintenance when existing vehicles are due for renewal. More proposals may be suggested through the 'Transformers' on the Council's Carbon Reduction Team.

January 2013
Holywells Park, Ipswich

10.0 Conservation and Heritage

10.1. Natural Conservation Value of the Park – Wildlife, Habitats and Biodiversity

The Park contains a mosaic of habitats, including woodland, orchard, wetlands and grassland, which enable wildlife to flourish, whilst also providing visitors of all ages and abilities with the opportunity to experience, enjoy, and understand nature. A balance of visitor and wildlife needs exists through effective zoning of different activities across the Park.

10.2. Wildlife Management Plan

Holywells Park contains a significant number of different habitats that all require different management approaches to be taken. A separate wildlife management plan has been produced and is appended to this document (appendix 11). The Park has been compartmentalized in 20 individual and distinct areas. This is to enable detailed information of current habitat type and condition to be included in the plan and for close analysis of management needs to be designed and incorporated.

The plan loosely follows the format from CABE Space's "A guide to Producing Park and Greenspace Management Plans" and recommendations from the Green Flag handbook, mainly because it sits within an overall ten year Park Management Plan document.

In addition the plan also contains a set of wildlife targets, entitled 'Biodiversity Performance Indicators'. These will help to inspire positive action towards enhancing the biodiversity of the Park. Furthermore, they will provide one of the methods for measuring the success of the plan.

The plan was collated and edited by the Wildlife Ranger Team Leader. The content was supplied from the Wildlife Ranger team. The Friends of Holywells Park and members of the community also provided additional information. Special acknowledgement for species records is attributed to Rob Garrod and Bill Stone.

The plan works within Ipswich Borough Council's Corporate Plan.

Specific aims of the plan include:

- Enhance environmental education facilities
- Reach 1000 species recorded in the Park species list
- Increase number of recorded dragonfly species
- Install 10 new Stag Beetle pyramid log piles in woodland edges
- Install reptile & amphibian grass and log piles and survey for species present
- Designate Park as a Local Nature Reserve
- Attain a Biodiversity Benchmark Award
- Record Great Crested Newt
- Kingfishers nesting in the Park
- Establish canopy wide habitat around 5 significant trees.

January 2013
Holywells Park, Ipswich

10.3. Current Designations

10.3.1. County Wildlife Site

Holywells Park is designated as a County Wildlife Site (CWS). County Wildlife Sites are recognised by national planning policy (Planning Policy Statement 9) as having a fundamental role to play in meeting overall national biodiversity targets. County Wildlife Sites are not protected by legislation but their importance is recognised by local authorities when considering any planning applications that may affect them. Indeed, under planning policy there is a presumption against granting permission for development that would have an adverse impact on a site's importance for wildlife. Such measures have been strengthened by the provisions of the Natural Environment and Rural Communities Act 2006 (NERC). This requires all public bodies to have regard for the conservation of biodiversity. Suffolk Wildlife Trust also monitors all planning applications for any potential impact on County Wildlife Sites.

10.3.2. Conservation Area

The park is part of a Conservation Area and therefore the Local Authority (IBC) has extra controls over the protection of trees. English Nature quote that trees make an important contribution to the character of the local environment. Anyone proposing to cut down, top or lop a tree in a conservation area, whether or not it is covered by a tree preservation order, has to give notice to the local authority. The authority can then consider the contribution the tree makes to the character of the area and if necessary make a tree preservation order to protect it (English Heritage, 2009).

10.3.3. Regionally Important Geological and Geomorphologic Site (RIGS)

Holywells has been designated as a RIGS by UKRIGS (as shown on the plan in Appendix 14). It recognises the concept of geodiversity and that its maintenance is fundamental to a balanced environment and a key measure of the sustainable use of our urban and rural landscapes and their resources. UKRIGS will work with other organizations and agencies to conserve our surviving Earth science heritage at local, regional, national and intra-national levels.

(Other possible future designations including Local Nature Reserve status and a Biodiversity Benchmark Award will be addressed in updates to the Action Plan).

10.4. Natural Landscape Character

Holywells Park can broadly be broken down into three character habitat types – Woodland, Grassland and Aquatic. Within these categories are a diverse range of habitats that create a unique site, which is an invaluable biodiversity resource.

10.4.1. Grassland

There is currently approximately 5 acres of grassland being managed as lowland meadow habitat in the Park. In contrast, there is approximately 8 acres of grassland being managed as short mown amenity.

January 2013

Holywells Park, Ipswich

Meadows and pasture have been an integral part of the landscape of Holywells for centuries, grazed by cattle and sheep, whereas today they are cut by machines. The meadows are a link to the past and help tell the story of Holywells through the ages. They are also of the utmost significance for wildlife, being part of complex food webs and chains, supporting myriad of species – invertebrates, birds, bats and so on.

The meadows offer people tranquillity and recreational pursuits such as wildlife watching and walking along the specially cut network of paths. There are green exercise opportunities during the cutting and raking season. Current practice of using machinery to cut and collect could be altered to enable volunteers raking and lifting exercise, whilst potentially reducing management costs at the same time.

10.4.2. Aquatic

Holywells Park is blessed with a vast and complex hydrological network of natural springs, ponds, wet flushes, wet meadow, wet woodland, a moat, and a linear canal.

The water is undoubtedly the major feature of the Park and as well as being a huge biodiversity resource, it also has a story to tell of an industrial and even medieval past.

There are currently eight ponds. The concrete paddling pool was removed from one of these in 2007 and has now been reverted back to a natural pond, along with all the benefits to wildlife that entails. Future management of all the ponds must consider each pond on a case by case basis, there is already rich diversity within the pond network and this must be continued via a carefully planned approach to any dredging or other maintenance/development projects.

Ongoing monitoring for all the water features of the Park is required, to facilitate the management decisions that have to be taken. Opportunities exist to improve some of the ponds for wildlife further, by selective and appropriate native planting and waterfowl and fish control measures.

The ponds are already used for environmental education with workshops on the water cycle, pond dipping investigative activities and so on. There are opportunities to extend this by constructing more timber dipping platforms. This would also ensure fewer disturbances to a single pond, as the activities would be spread more evenly across the Park.

10.4.3. Woodland

Significant tree cover, diverse in habitat structure, enriches Holywells Park. For example, Lowland Mixed Deciduous Woodland wraps around much of the perimeter of the Park, Wet Woodland is present along parts of the valley floor near to some of the ponds, Wood Pasture and Traditional Orchard are also present in various locations. Management is undertaken to preserve and enhance biodiversity, balanced with landscape and amenity needs and desires.

Dead wood is retained where possible and log piles are built in appropriate locations. These serve to provide an educational resource for visiting school children studying invertebrates and other fauna, fungi, and so on. Plus, they provide specific habitat for protected species such as the Stag Beetle, a priority BAP species and a genuine local species that Ipswich and the surrounding area of Suffolk is famous for.

January 2013

Holywells Park, Ipswich

Future management will continue the practice of traditional woodland coppicing and the overall general reduction of undesirable species from within woodland and similar habitats, e.g. Horse Chestnut and Sycamore. These are subsequently replaced by species more beneficial to wildlife, e.g. English Oak, Silver Birch.

Veteran trees are limited in number and future management should address the generation gap between existing veteran/mature trees via a planned planting scheme, ideally using native species, particularly when planting close to, or within, the various habitats detailed above.

Future management should also restrict lower branch pruning of trees and subsequent regular mowing of grass within the width of the trees canopy, particularly veteran specimens. Compaction can cause long-term damage, and beneficial fungal associations with the tree can also be reduced or damaged by inappropriate mowing. Plus, the interface between the ground flora and lower branches of trees is a dynamic habitat within which many specialised species occur. This feature is pointed out during education workshops, and students learn about, and see via recognised surveying methods, examples of species inhabiting the lower branches of trees.

Finally, visitor management should consider pressure and disturbance to wildlife. Access needs to be provided but not at the detriment of wildlife. This factor needs addressing at the earliest planning stage for any access-based project.

10.4.4. Tree Management Strategy

A separate arboricultural maintenance strategy has been produced which looks at the management and maintenance of trees and woodland in more detail. The full report is appended to this document (appendix 13).

10.5. Cultural Landscapes - Archaeology

There have been four limited archaeological investigations in the park which have informed the development of the park restoration project and helped with the decision on the final location of the new play facility. As part of the project planning work and to assist the archaeological study a desk-based historical record review was also commissioned from the local historian, Anthony Breen, (a copy of this document is available on Wessex Archaeology's website:

www.wessexarch.co.uk/projects/suffolk/ipswich/holywells/index.html). The latter research was undertaken in 2005.

The first study was undertaken over a 4-week period between 2nd – 26th November 2004 as part of a project planning award towards a future restoration project. A total of 10 machine-excavated trenches (1.50m wide, 91m length total) were undertaken as part of the archaeological investigations. The trenches were targeted on specific features within the site highlighted by historical and/or cartographic information which included:

- Trenches 1 - 2 the house terrace, to identify the sequence of terrace surfacing & construction.
- Trenches 3 - 4 to date and characterise an upper water course shown on early maps below the bowling green.

January 2013

Holywells Park, Ipswich

- Trenches 5 – 6 to date and characterise the water channels between ponds and to record a possible medieval field boundary ditch clearly marked on the 1850 map.
- Trench 7 – to identify the extent and nature of the 19th Century formal garden at the entrance to the Bishops Wyke site.
- Trench 8 – to investigate the site of Beech Cottage and describe the nature of archaeological remains in this area.
- Trenches 9 -10 – to characterise the garden layout and material used in the lower section of the 20th Century house garden.

As one would expect from a park of post-medieval to modern date, the finds assemblage, features and deposits dated almost exclusively to the relatively recent past (19th - 20th Centuries) and were associated with the park landscaping of this period. However, the material does not have the chronological resolution to correlate with the relatively closely dated parkland features and historical events recorded in early maps and other historical documentation.

A second study in 2006 examined the Bishops Wyk site with a systematic trench evaluation down to 2metres in depth. The County Archaeologist has concluded that the site showed no signs of disturbance or human habitation and could be developed for the proposed play facility.

The third study monitored the desilting of the moated site during August 2007. During this work the operator uncovered a number of hollow timber pipes, which were examined by an independent specialist in ancient timber. His assessment was these water conduits showed the requisite properties to identify them as post-medieval in origin.

The fourth study was undertaken in 2012 by CgMs. Evidence from map, archive, published and other sources was examined to assess the archaeological potential of Holywells Park and to determine an appropriate strategy for recording during the proposed improvements to the Park.

The Park contains significant archaeological and historic evidence in particular related to the late 18th and 19th century development of Ipswich and its relationship to the Cobbold family. It has also yielded evidence of prehistoric and later activity which suggests the potential survival of evidence from these periods throughout the Park.

In heritage terms the proposed development is intended to enhance the parkland to improve its wider social, cultural, economic and environmental benefits and to make further and positive contribution to local character. These are important factors in assessing the appropriate level of mitigation in response to the development proposals. The full scope of the proposed development is set out in Table 1 in the report. Where it involves changes or improvements to the fabric of listed buildings further recording is recommended (English Heritage Level 2). Where ground-works have the potential to disturb archaeological deposits, preservation by record has been recommended. The latter will be achieved by an archaeological watching brief carried out whenever below ground work is undertaken. Rather than create a new archive, any archives of finds or records resulting from this and the recording work will be deposited with Ipswich Museum Service and the County Historic Environment Record.

January 2013
Holywells Park, Ipswich

10.6. Art in the Park

The Park has great potential to be developed as a venue for various cultural events embracing a broad spectrum of ideas and themes. Temporary and permanent art installations will be encouraged in appropriate locations; for example in other parks such installations have included a turf maze in the Upper Arboretum, chainsaw sculptures and a permanent installation of a Portland stone monolith.

January 2013
Holywells Park, Ipswich

11.0 Community Involvement

11.1. Patterns of Use

Holywells Park is reasonably close to the centre of the town and has long established patterns of use. This usage varies during the day but also between weekdays and weekends. There are also seasonal variations and differences depending upon which area of the Park you are in.

The following is a general overview of the patterns of use.

On a regular weekday rush-hour Holywells is a commuting route for those that either live close by or walk to work or school. During the day visitors are elderly, parents caring for children or those who visit to enjoy the Park for a leisure pursuit.

At weekends and during holidays the Park can be an attraction for all ages as there are a variety of facilities to make use of. The new play facility with its range of attractive features has proved to be a major draw in the park and has increased the number of visits by families with young children. The waterplay facility operates from 10am – 6.30pm every day through the open season from May to September.

Obviously the warmer months are busier but good weather in the midst of winter can see the Park bustling with visitors.

Some areas of the Park are maintained as peaceful areas and their usage will, naturally, be less than other areas.

11.2. Community Involvement

Holywells Park has a well established Friends Group who have been actively involved in planning the future of the park as well as proactively engaging with a number of practical conservation schemes. Opportunities to expand community involvement and range of activities have been detailed in an extensive Activity Plan as part of the restoration programme, which identifies ways to involve and encourage minority groups, identified through visitor surveys, to take part in activities and volunteer opportunities.

11.3. Facilities

Holywells Park provides the setting for the Stable Block and the Orangery. The park currently contains a single public toilet facility at the base of the tower in the stable block. The refurbished Stable Block will provide a refreshment facility, improved toilet facilities and small craft workshops. Some of the available space has already been occupied by the Genesis/Orwell Mencap 'Green Bike Project'. A small public car park lies at the right hand side of the drive from the Cliff Lane entrance as it approaches the stable block.

There are a variety of landscape types across the Park from wildlife meadows to woodland and parkland grass to large ponds. There is an active bowling green which lies on the west side of the orangery.

January 2013

Holywells Park, Ipswich

11.4. Children's Play

Holywells offers a large children's play area which was extended and refurbished in 2007 and is well used. The enclosure also contains a water play facility which operates from Easter to 30th September each year.

11.5. Educational Facilities

Holywells Park has, for many years, been a place where schoolchildren have learnt about the natural environment. A refurbished stable block would offer the opportunity to extend their stay and provide scope for additional studies. (Future improvements would allow for interpretation material in the rooms around the courtyard area which would feature a range of informative history and wildlife material; this will also tell the story of the parks role in the industrial history of the town and in particular the emergence of the brewing industry at Cliff Quay.

11.6. Open4all

Holywells Park is near the centre of Ipswich and it is utilised by visitors from both the town and further afield. Staff in the Park will attempt to make every visitor welcome by providing an enjoyable visit. It is hoped that the park will undergo further refurbishment where accessibility is a higher priority; however, there will still be a few paths within the Park, which are not easily accessible. These paths will be highlighted on the information boards.

January 2013
Holywells Park, Ipswich

12.0 Marketing

12.1. Information Provision and Interpretation

The current marketing strategy for Holywells Park is limited to dedicated pages on the Ipswich Borough Council Website which also has links to a site controlled by the Friends of Holywells Park.

The Council's newspaper, the Angle, publicises events and activities that occur at Holywells Park as well as the local media outlets. Future events and activities and general information about the park will be publicised on new entrance boards, the IBC website, Facebook and Twitter accounts, FoHP website, local resident magazines and a series of information leaflets about Holywells Park. Please refer to the Activity Plan Appendix E ref 1.

12.2. Events in Holywells Park

12.2.1. Current Provision (Including Volunteering)

Holywells Park currently sustains a small number of events and activities (Activity Plan Table 5). These include events put on by the Friends of Holywells Park, Ipswich Borough Council Wildlife Team, local schools and community groups. In 2012 Holywells Park held 8 public events which attracted 1,112 visitors to the Park. Events and activities in Holywells Park are generally low key and are not well publicised. They are normally focused on wildlife resources that the park has to offer and not on its heritage, are not aimed at specific audiences and do not encompass the whole park.

A small number of primary schools visit the park throughout the summer months. School visits are restricted to summer months as there is no provision of indoor space or outdoor shelter. In 2012 three primary schools came to the park for Key Stage 1 & 2 environmental education led by IBC Wildlife Team. Even though the Park holds a wealth of local heritage this is not tapped into as an educational resource as the information is not readily available to customers of the Park. There were a number of primary school visits that use the park but did not go through IBC's educational programme so numbers are underrepresented. Below is a table showing the current park users.

The park is used by the wider community including youth organisations (scouts etc.), Suffolk Wildlife Trusts Watch group, British Military Fitness, Holywells Bowls Club and Genesis a social enterprise organisation. Genesis occupy a room within the stable block running the 'Green bike Project' which rescues and repairs old bikes for resale. The project is run with help from volunteers and service-users, providing training, life skills and work-based experience for people with learning disabilities.

Volunteering at Holywells Park consists of practical conservation tasks undertaken on a weekly basis by a small number of the Friends of Holywells Park, events organised and managed by FoHP, local natural historians and wildlife groups recording wildlife within the park and local historians and the Cobbold Family Trust. The Friends contributed 1,083 hours of volunteer time in 2012.

January 2013

Holywells Park, Ipswich

Events can be divided into three categories:

- Major events are currently rare in the Park. It is possible that this situation will change in the park once a restoration project has been completed. Such events would usually be organised by outside bodies through Ipswich Borough Council's Arts & Entertainments Department. Some examples of smaller events in Holywells are shown below.
- Secondly, smaller events organised by outside bodies. These are also scrutinised by the Arts & Entertainments Dept. These events range from fun runs to small theatrical shows. The Friends of Holywells Park has organised various events in the park in recent years including Apple Day, which has proved consistently popular over the years.
- Finally there are the small family events organised by the Park staff. These events are generally not big enough to warrant Arts & Entertainments involvement. Park Patrol officers are involved in the planning and management of these events.

The first two categories are generally proposed by outside bodies and then approved by firstly the Park Manager and the Arts & Entertainments Dept. Promotion of the Park as an event venue has not been a priority in the past.

- See Activity Plan Appendix E.
- (Activity Plan page 34).

12.2.2. Future Provision

Smaller family events will be organised to take place during the school holidays and will often be themed to a particular season. They will be based on the Park's wildlife or history or an environmental theme.

The additional activities park visitors wanted to see encouraged at Holywells Park were:

- Family orientated events
- Good interpretation of parks environment and heritage
- Local history
- BAME events
- Arts; drama, music, theatre, singing and sculpture
- Guided walks
- Self-led trails
- Information Leaflets
- The use of Quick Response Codes
- Resources for Teachers
- Educational Resources for schools
- Outdoor activities
- Gardening
- Outdoor classrooms

January 2013

Holywells Park, Ipswich

- More health and exercise opportunities
- Educational opportunities for schools, colleges and universities.

For more detail please refer to the Activity Plan.

Community Engagement Officers from IBC will be responsible for organising and publicising events and activities within the park.

January 2013
Holywells Park, Ipswich

13.0 Management

13.1. Public Service

Holywells Park is one of three major historic parks in the town given to the people of Ipswich as a place to recreate. It is the aim of Ipswich Borough Council to continue to maintain this wonderful resource.

13.2. Personnel

Holywells Park will operate with a Park Manager as part of the project team; prior to this a Grounds Maintenance Area Manager has supervised the maintenance work. A Field Team Ranger has input into the interpretation, education and biodiversity elements of the Park. Working alongside this team are the Parks Patrol staff. See appendix 18 (Parks and Open Spaces Staff structure). Park Patrol staff operate in the Park outside of normal working hours to cover the Park's opening times. It also anticipated that the major business partner Genesis will provide additional staffing resources as part of the refreshment facility which will be developed in the stable block. Genesis currently run the 'Cycle Project' using some of stable space in the main building to provide a bicycle repair facility, which will add another dimension to the current role of the stable block and the first step to other initiatives.

A valuable resource for the Park is the volunteer team. The volunteers come from all walks of life and some are enlisted through the Friends group, advertising in the Park and through a variety of trusts and other organisations. It is expected that this resource base will be developed further as the links developed with the Activity Plan are expanded upon.

13.3. Quality Systems, Management Plans and Policies

This is a development of the first Management Plan for Holywells Park (2009 -2019) and as such will be a working document which will need to be regularly updated to reflect the restoration works and other improvements that take place in the Park over the next few years. In 2009 Partnership working with Genesis will change the way the stable block is used and the impact on working practices in the Park will need to be shown in this document. The staff in the Park work within the requirements of the Quality Management System adopted by the Parks and Open Spaces section for which they work within the Council's operational structure. The systems detailed in this document will need to be monitored as many of the tasks are new or recent introductions and may need to be amended so they continue to be fit for purpose. This is the first management document since the old Competitive Tendering plans were drawn up 15-20 years ago and will cover all work as carried out by the restoration project. All policy documents related to this Management and Maintenance Plan can be found in the Appendices of this document or on Ipswich Borough Council's website.

13.4. Financial Management

The Holywells Park management and maintenance is currently funded out of two revenue streams:

- The Parks and Open Spaces Operational budget – this covers the park management, operational costs (such as utility bills etc.) and grounds maintenance works.

January 2013

Holywells Park, Ipswich

- The Repairs and Maintenance budget run by IBC's Building and Design Services – this covers the maintenance of the buildings.

These two revenue streams will continue to fund the increased cost of the management and maintenance works described in the 10 year Management and Maintenance Plan.

13.5. Implementation

This plan is to be implemented from 2013 and will run for ten years. However, as suggested above, the plan will need reviewing and revising at regular intervals to ensure that it is both practical and effective.

January 2013
Holywells Park, Ipswich

14.0 Appendices

Appendix 1 Landscape Character Areas – Plan

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LEGEND

Landscape Character Areas

1. Holywells House and Gardens
2. Parkland Core
3. Bishop's Wyke
4. Eastern Woodland
5. Canals and Pond Network
6. Nature Conservation Area

Park Compartments

- A Old Orchard
- B Kissing Gate Lane and Meadow
- C New Orchard
- D New Meadow
- E The Canal
- F Bishop's Hill Woodland
- G Nacton Road and Bishop's Hill Woodland
- H Elmhurst Drive Woodland
- I The Dell
- J Pond 1 and Environs
- K Wetland Garden Stream and Environs
- L Pond 2
- M Play Area and Moat
- N Pond 3
- O Pond 4
- P Pond 5
- Q Pond 6
- R Pond 7
- S Pond 8 and Environs
- T Parkland Core



REV.	DESCRIPTION	DATE
B	Text enlarged	29.01.13
A	Park compartments added	23.01.13

LDĀ DESIGN

PROJECT TITLE
HOLYWELLS PARK
 IPSWICH

DRAWING TITLE
Landscape Character Areas and Park Compartments

ISSUED BY Peterborough T: 01733 310471
 DATE Jan '13 DRAWN tjh
 SCALE@A1 1:1250 CHECKED ac
 STATUS Planning APPROVED ac

DWG. NO. 3361_120B

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Appendix 2 Maintenance Tasks and Frequency Plan – General Tasks

TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL	
				1	2	3	4	5	6	7	8	9	10	11	12		
High Quality Grass																	
Rotary mow collected	2163m ²	SR1	T			4	4	5	5	5	4	4	4				35
General Park Grass																	
Gang mow dispersed	111220m ²	SR4	T			2	2	3	3	3	3	2	2				20
Strim grass	315m ²	SR3	T			2	2	3	3	3	3	2	2				20
Rotary mow dispersed	11317m ²	SR4	T			1	1	2	1	1	1	1	1				9
Orchard	1500m ²	SR4 SR6	C														
Wildflower cutting		SR6	C, D, S, M, L						1			1					2
Entrances	Per item																
Inspect for litter/damage	5	SR24		31	28	31	30	31	30	31	31	30	31	30	31		365
Inspect for appearance	5	SR25		1			1			1			1				4
Bedding	30m ²	SR33	T														
Keep bedding dead headed										1							1
Ground preparation								1					1				2
Hand weed bed					1	1	1	1	1	1	1	1	1	1			10
Irrigate				As necessary													
Plant bedding								1						1			2
Long handle shear edges					1	1	1	1	1	1	1	1	1	1			

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					1	2	3	4	5	6	7	8	9	10	11	12	
	Herbaceous Border	95m ²	SR35	T													
	Cut down border															I	I
	Clean and fork border							I									I
	Hand weed border						I	I	I	I	I	I	I	I	I	I	10
	Irrigate				As necessary												*
	Dead head border											I					I
	Long handle shear edges						I	I	I	I	I	I	I	I	I	I	
	Rose beds	27m ²	SR36	T													
	Dead head											I					I
	Fertilise rose bed							I						I			2
	Hand weed bed						I	I	I	I	I	I	I				7
	Autumn prune													I			
	Spring prune						I										
	Prune species/shrub roses						I										
	Long handle shear edges						I	I	I	I	I	I	I				7
	Shrub beds	1594m ²	SR37	T													
	Hand weed un-mulched	1149m ²					I	I	I	I	I	I	I				7
	Prune un-mulched shrubs														I		I
	Top up mulch														I		I
	Hand weed mulched	445m ²					I	I	I	I	I	I	I				7
	Prune mulched shrubs				As required												I

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					I	2	3	4	5	6	7	8	9	10	11	12	
	Long handle shear edges						I	I	I	I	I	I				7	
	Hedges	675 lm	SR38	T													
	Inspect hedges							I			I					2	
	Trim hedges								I			I				2	
	Trees	Per item	SR39	ALL													
	Autumn maintenance visit	4										I				I	
	Immature tree, weed free	4					I									I	
	Mature tree, weed free	25I															
	Remove epicormic growth	44										I				I	
	Visual check						I					I				2	
	Full health check				I												
	Visual check on veteran						I					I				2	
	Event check																
	Litter removal		SR26	ALL													
	Litter pick Park	140054			4	4	4	4	4	5	5	5	5	4	4	4	52
	Litter bins	Per item		ALL													
	Empty litter bins	11	SR27		31	28	31	30	31	30	31	31	30	31	30	31	365
	Clean litter bins	11	SR28		I							I				2	

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					1	2	3	4	5	6	7	8	9	10	11	12	
	Dog bins	Per item		ALL													
	Empty dog bins	4	SR29		31	28	31	30	31	30	31	31	30	31	30	31	365
	Clean dog bins	4	SR30		1								1				2
	Benches	Per item	SR40	ALL													
	Inspect for damage	13			4	4	4	4	4	5	5	5	5	4	4	4	52
	Maintenance	13												1			1
	Rustic style	13															
	Formal	9															
	Picnic benches	13															
	Information boards	Per item		ALL													
	Check boards (IBC)	5	SR31		1	1	1	1	1	1	1	1	1	1	1	1	12
	Check boards (FOHP)	4	SR31		1	1	1	1	1	1	1	1	1	1	1	1	12
	Clean boards	6	SR32				1					1					2
	Hard surfaces/paths	Lm/M2		ALL													
	Inspect paths (hard)	1402lm	SR41		1	1	1	1	1	1	1	1	1	1	1	1	12
	Sweep hard surfaces	1402 lm	SR42		1	1	1	1	1	1	1	1	1	1	1	1	12
	Clear paths	1402 lm	SR43		2										4	4	10
	Cliff Lane – Bishops Hill	608 lm (2371m2)		H													
	Main Drive – Nacton Rd	314 lm (942m2)		H													

TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
				1	2	3	4	5	6	7	8	9	10	11	12	
Main Drive – Pond 4	157 lm (235 m2)		T													
Main Drive – Myrtle Rd	323 lm (969 m2)		T													
Sweep steps	84m2	SR42	T	1	1	1	1	1	1	1	1	1	1	1		12
Clear steps	84m2	SR43	T	2										4	4	10
Inspect paths (woodland)	1533 lm	SR42		1	1	1	1	1	1	1	1	1	1			12
Car park – Nacton Rd	265 lm		H													
Nacton Rd – Bishops Hill	728 lm		G													
Myrtle Rd – Bottom Cliff Ln.	540 lm		S, R, E													
Inspect paths (natural)	1113 lm	SR41		1	1	1	1	1	1	1	1	1	1	1	1	12
Moat meadow path – Pond 4 & Ash tree	233 lm		M													
<i>Large meadow paths – terrace steps</i>	505 lm		T													
<i>Brimstone Alley/Wetland Garden path</i>	375 lm		K, J													
Keep weed free				As necessary												
<i>Cobbled area</i>	60m2		T			1					1				1	3
<i>Bowls Green - Paved area</i>	153m2		T			1					1				1	3
<i>Walled garden - footpaths</i>	97m2		T			1					1				1	3

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					1	2	3	4	5	6	7	8	9	10	11	12	
	Leaf removal	124865	SR45	T													
	Leaf clearance	122852m ²													1	1	2
	Leaf rake box mown areas	2163m ²												1		1	2
	Fences/gates	Per item		ALL													
	Inspect fences chainlink	1312 lm			1	1	1	1	1	1	1	1	1	1	1	1	12
	Inspect fences post/rail	4394 lm			1	1	1	1	1	1	1	1	1	1	1	1	12
	Inspect/oil gates	9				1								1			2
	Waterways			ALL													
	Clear debris	9			4	4	4	4	4	5	5	5	5	4	4	4	52
	Rod inlets/outlets/weir	9			1	1	1	1	1	1	1	1	1	1	1	1	12

Maintenance Tasks and Frequency Plan

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					1	2	3	4	5	6	7	8	9	10	11	12	
	Walled Garden			T													
	Rotary mow - collected	721m ²	SR1				4	4	5	5	5	4	4	4			35
	Hand weed mulched shrub beds	151m ²	SR37				1	1	1	1	1	1	1	1	1		9
	Hand weed annual bedding	30m ²	SR33				1	1	1	1	1	1	1	1			
	Hand weed Herbaceous border	62m ²	SR35				1	1	1	1	1	1	1	1			
	Hand weed Fuchsia bed	22m ²	SR34				1	1	1	1	1	1	1	1			
	L.H.S edges beds/borders	148lm					1	1	1	1	1	1	1	1	1		9
	Sweep paths (hard)	46m ²	SR42		1	1	1	1	1	1	1	1	1	1	1	1	12
	Keep weed free (hogging path)	87m ²					1				1				1		3
	Maintain Fuchsia bed	22m ²	SR34												1		1
	Maintain rose beds	27m ²	SR36					1			1			1			3
	Fertilise rose beds	27m ²	SR37					1						1			2
	Maintain annual bedding	90m ²	SR33						1				1				2
	Maintain Herbaceous border	62m ²	SR35				1								1		2
	Maintain shrub beds	124m ²	SR37												1		1
	Stable Block frontage			T													
	Rotary mow – collected	52m ²	SR1				4	4	5	5	5	4	4	4			35
	Hand weed mulched herbaceous/shrub bed	68m ²	SR35				1	1	1	1	1	1	1	1			9
	Prune shrubs in mulched bed	34m ²	SR35		As required												
	L.H.S. edge	36lm					1	1	1	1	1	1	1	1			

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					1	2	3	4	5	6	7	8	9	10	11	12	
	Sweep paths	212m ²	SR42		1	1	1	1	1	1	1	1	1	1			12
	Maintain herbaceous bed	34m ²	SR35				1								1		2
	Bowls greens	1200m²	SR10	T													
	Brush green						14	14	15	15	15	14	14	14			115
	Irrigate																
	Rotary mow bowls greens banks – dispersed	369m ²	SR4				2	2	3	3	3	3	2	2			16
	LHS Lawn				2	2	2	3	2	2	2	3	2	2	2	2	26
	Fertilise Lawn							1		1				1			3
	Scarify							1		1		1		1			4
	Aerate							1									1
	Overseed													1			1
	Top Dress													1			1
	Mark out						1	13	14	13	13	14	13	13			94
	Keep drains clear						1										1
	Keep Leaf free						1										1
	Service irrigation system											1					1
	Rotary mow collect – top of bank	1390m ²	SR1				4	4	5	5	5	4	4	4			35
	Rotary mow bank – dispersed	369m ²	SR4				2	2	3	3	3	3	2	2			20
	Hand weed un-mulched beds <i>bottom bank</i>	512m ²	SR37				1	1	1	1	1	1	1	1			8
	Prune shrubs mulched and un-		SR37		As required												

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					1	2	3	4	5	6	7	8	9	10	11	12	
	mulched shrub beds																
	Cut hedges	166m ²	SR38														
	Long Grass Maze	800m ²		T													
	Rotary mow path – collected	132m ²	SR1				2	2	3	3	3	3	2	2			
	Nacton Rd Entrance			G													
	Rotary mow – dispersed	136m ²	SR4				2	2	3	3	3	3	2	2			22
	Myrtle Rd Entrance			S													
	Rotary mow – dispersed	425m ²	SR4				2	2	3	3	3	3	2	2			22
	Cut/collect bluebell area	375m ²	SR6						1								
	Hand weed mulched beds	142m ²	SR37		4	4	5	4	4	5	4	4	5	4	4	5	52
	L.H.S. edges	41m	SR37				1	1	1	1	1	1	1	1			8
	Prune shrubs in mulched shrub bed	142m ²	SR37		As required												

Maintenance Tasks and Frequency Plan - Waterways

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					1	2	3	4	5	6	7	8	9	10	11	12	
	The Dell			I													
	Inspect fencing	137lm			1	1	1	1	1	1	1	1	1	1	1	1	12
	Inspect/clear rubbish				1	1	1	1	1	1	1	1	1	1	1	1	12
	Maintain woodland edge												1				1
	Pond 1		SR13	J													
	Inspect fencing/gates	3020 lm			1	1	1	1	1	1	1	1	1	1	1	1	12
	Maintain scrub edge (<i>west</i>)	60m2					1							1			2
	Maintain bramble edge (<i>north</i>)	240m2													1		1
	Clear pond weed	565m2													1		1
	Inspect water flow				4	4	4	4	4	5	5	5	5	4	4	4	52
	Inspect/clear debris				1	1	1	1	1	1	1	1	1	1	1	1	1
	Maintain sight lines <i>east/west</i>														1		1
	Pond 2		SR14	L													
	Inspect fencing/gates	1134lm			1	1	1	1	1	1	1	1	1	1	1	1	12
	Inspect balustrade wall	6 lm			1	1	1	1	1	1	1	1	1	1	1	1	12
	Cut/clear vegetation	1192m2													1		1
	Manage pond weed	372m2													1		1
	Inspect water flow				4	4	4	4	4	5	5	5	5	4	4	4	52
	Inspect/clear debris				1	1	1	1	1	1	1	1	1	1	1	1	12
	Coppice/pollard willows														1		

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					1	2	3	4	5	6	7	8	9	10	11	12	
	Maintain site lines															1	
	Maintain surface vegetation	372m ²														1	
	Pond 3		SR15	L													
	Cut grass banks	212m ²					2	2	3	3	3	3	2	2			20
	Maintain scrub edge - bank	120m ²														1	1
	Inspect fencing	67 lm				1	1	1	1	1	1	1	1	1	1	1	1
	Inspect boardwalk					1	1	1	1	1	1	1	1	1	1	1	1
	Inspect balustrade	6 lm				1	1	1	1	1	1	1	1	1	1	1	1
	Manage pond weed	1890m ²														1	1
	Inspect water flow					4	4	4	4	4	5	5	5	5	4	4	4
	Inspect/clear debris					4	4	4	4	4	5	5	5	5	4	4	4
	Maintain sight lines															1	1
	Pond 4 - Moat		SR16	O													
	Cut grass bank <i>south</i>	312m ²					2	2	3	3	3	3	2	2			20
	Inspect fencing <i>north</i>	28m				1	1	1	1	1	1	1	1	1	1	1	1
	Maintain scrub/woodland/ wetland edge	3420m ²														1	1
	Manage pond weed - <i>Pond 4</i> Moat	620m ² 1200m ²														1	
	Inspect water flow					4	4	4	4	4	5	5	5	5	4	4	4
	Inspect/clear debris					4	4	4	4	4	5	5	5	5	4	4	4
	Maintain sight lines															1	1

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL	
					1	2	3	4	5	6	7	8	9	10	11	12		
	Maintain surface vegetation	1820m²															I	I
	Pond 5		SR17	P														
	Cut/clear vegetation	430m²															I	I
	Manage pond weed	126m²															I	I
	Inspect water flow				4	4	4	4	4	5	5	5	5	4	4	4		5 ²
	Inspect/clear debris				4	4	4	4	4	5	5	5	5	4	4	4		5 ²
	Maintain surface vegetation	126m²															I	I
	Pond 6		SR18	Q														
	Manage woodland edge	840m²															I	I
	Inspect fencing	23 lm			I	I	I	I	I	I	I	I	I	I	I	I		I ²
	Manage pond weed	126m²															I	I
	Inspect water flow				4	4	4	4	4	5	5	5	5	4	4	4		5 ²
	Inspect/clear debris				4	4	4	4	4	5	5	5	5	4	4	4		5 ²
	Maintain surface vegetation	126m²															I	I
	Install weir boards						I											I
	Remove weir boards													I				I
	Pond 7		SR19	S														
	Manage woodland edge	544m²															I	I
	Manage pond weed	223m²															I	I
	Inspect water flow				4	4	4	4	4	5	5	5	5	4	4	4		5 ²
	Inspect/clear debris				4	4	4	4	4	5	5	5	5	4	4	4		5 ²

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					1	2	3	4	5	6	7	8	9	10	11	12	
	Maintain surface vegetation	223m²													1		1
	Maintain sight lines														1		1
	Maintain trees on island	32m²													1		1
	Pond 8		SR20	R													
	Manage pond weed	1180m ²													1		1
	Inspect water levels				4	4	4	4	4	5	5	5	5	4	4	4	52
	Maintain revetments														1		1
	Inspect fencing	153 lm			1	1	1	1	1	1	1	1	1	1	1	1	12
	Manage woodland	236m ²													1		1
	Maintain trees on island	82m²													1		1
	Inspect water flow				4	4	4	4	4	5	5	5	5	4	4	4	52
	Inspect/clear debris				4	4	4	4	4	5	5	5	5	4	4	4	52
	Maintain bridges														1		1
	Canal		SR21	E													
	Cut/clear vegetation	1212m²													1		1
	Inspect water flow				4	4	4	4	4	5	5	5	5	4	4	4	52
	Inspect/clear debris				4	4	4	4	4	5	5	5	5	4	4	4	52
	Inspect sewage pipes				1	1	1	1	1	1	1	1	1	1	1	1	12
	Maintain sight lines														1		1
	Maintain surface vegetation	1359m²													1		1

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					1	2	3	4	5	6	7	8	9	10	11	12	
	Orchard			C													
	Rotary mow grass - dispersed	1500m ²	SR4				2	2	3	3	3	3	2	2			20
	Cut/clear long grass	350m ²	SR6												I		I
	Prune Fruit trees	23													I		I
	Manage woodland edge														I		I
	Inspect fencing/gate				I	I	I	I	I	I	I	I	I	I	I		I2
	Inspect water flow				I	I	I	I	I	I	I	I	I	I	I		I2
	Inspect/repair bridges					I							I				2
	Large Meadow	11090m ²	SR6	D													
	Cut footpaths	505 lm					I	I	I	I	I	I	I	I			8
	Cut/clear long grass	10585													I		I
	Litter pick	11090			I	I	I	I	I	I	I	I	I	I	I		I2
	Myrtle Rd Meadow	1548 m ²	SR6	S													
	Cut/clear long grass	1548m ²													I		I
	Litter pick	1548m ²			I	I	I	I	I	I	I	I	I	I	I		I2
	Cut back woodland edge														I		
	Pond 2 Meadow	271m ²	SR6	L													
	Cut/clear long grass	271m ²													I		I
	Litter pick	271m ²			I	I	I	I	I	I	I	I	I	I	I		I2

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					1	2	3	4	5	6	7	8	9	10	11	12	
	Moat Meadow		SR6	M													
	Cut footpath	233 lm					1	1	1	1	1	1	1	1		8	
	Cut/clear long grass													1		1	
	Litter pick				1	1	1	1	1	1	1	1	1	1	1	12	
	Copper Beach Meadow	340m ²	SR6	J													
	Cut/clear long grass	340m ²												1		1	
	Litter pick	340m ²			1	1	1	1	1	1	1	1	1	1	1	12	
	Kissing Gate Ln Meadow	2756m ²	SR6	B													
	Cut/clear long grass	2756m ²												1		1	
	Woodland Car Park – Nacton Rd			H													
	Cut along footpaths	265 lm	SR4				1	1	1	1	1	1	1	1		8	
	Litter clearance		SR26		1	1	1	1	1	1	1	1	1	1	1	12	
	Woodland tree work		SR39											1		1	
	Inspect for safety		SR41		1	1	1	1	1	1	1	1	1	1	1	12	
	Maintain footpaths		SR41											1		1	
	Visual tree check		SR39											1		1	
	Woodland Nacton Rd – Bishops Hill			G													
	Cut along footpaths	728 lm	SR4				1	1	1	1	1	1	1	1		8	
	Litter clearance		SR26		1	1	1	1	1	1	1	1	1	1	1	12	

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					1	2	3	4	5	6	7	8	9	10	11	12	
	Woodland tree work		SR39												I		I
	Inspect for safety		SR41		I	I	I	I	I	I	I	I	I	I	I	I	I2
	Maintain footpaths		SR41												I		I
	Visual tree check		SR39												I		I
	Woodland Bishops Hill – Myrtle Rd			F													
	Litter clearance		SR26		I	I	I	I	I	I	I	I	I	I	I	I	I2
	Woodland tree work		SR39												I		I
	Maintain sight lines		SR41												I		I
	Inspect for safety		SR41		I	I	I	I	I	I	I	I	I	I	I		I2
	Visual tree check		SR39												I		I
	Woodland Myrtle – Bottom gate Cliff Lane			S, R, E													
	Cut along footpaths	540	SR4				I	I	I	I	I	I	I	I			8
	Litter clearance		SR26		I	I	I	I	I	I	I	I	I	I	I	I	I
	Woodland tree work		SR39												I		I
	Inspect for safety		SR39		I	I	I	I	I	I	I	I	I	I	I	I	I2
	Maintain footpaths		SR41												I		
	Visual tree check		SR39												I		I
	Woodland Allotment boundary – Walled Gardens			D													

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					1	2	3	4	5	6	7	8	9	10	11	12	
	Litter clearance		SR26		1	1	1	1	1	1	1	1	1	1	1	1	12
	Woodland tree work		SR39												1		1
	Inspect for safety		SR41		1	1	1	1	1	1	1	1	1	1	1	1	12
	Stable Block			T													
	Clean/check public toilets		SR23 SR47		31	28	31	30	31	30	31	31	30	31	30	31	365
	Building inspection										1						1
	Fire Drill					1						1					2
	Emergency lighting test				1			1				1			1		4
	Fire Alarm service				1			1				1			1		4
	Fire Alarm test				4	4	4	4	4	5	5	5	5	4	4	4	52
	Fire Exst. inspection				4	4	4	4	4	5	5	5	5	4	4	4	52
	Cleaning inspection				1	1	1	1	1	1	1	1	1	1	1	1	12
	Orangery			T													
	Clean/check public toilets		SR23 SR47		31	28	31	30	31	30	31	31	30	31	30	31	365
	Building inspection										1						1
	Fire Drill					1						1					2
	Emergency lighting test				1			1				1			1		4
	Fire Alarm service				1			1				1			1		4
	Fire Alarm test				4	4	4	4	4	5	5	5	5	4	4	4	52
	Fire Exst. inspection				4	4	4	4	4	5	5	5	5	4	4	4	52

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	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					I	2	3	4	5	6	7	8	9	10	11	12	
	Cleaning inspection				I	I	I	I	I	I	I	I	I	I	I	I	I2

Maintenance Tasks and Frequency Plan – Open Parkland

	TASK DESCRIPTION (INPUTS)	Area M ² /Lm	Specification Reference	Compartment	FREQUENCY SPREAD												TOTAL
					1	2	3	4	5	6	7	8	9	10	11	12	
	Play area			M													
	Rotary mow dispersed	598m ²	SR4				2	2	3	3	3	3	2	2			20
	Strim fenceline	226lm	SR3				1	1	1	1	1	1	1	1			8
	Commission/de-commission water play	24m ²						1					1				2
	Pressure wash water play surface	24m ²			1	1	1	1	1	1	1	1	1	1	1		12
	Rake play bark level	166m ²	SR9		31	28	31	30	31	30	31	31	30	31	30	31	365
	Sweep hard areas	55m ²	SR42		4	4	4	4	4	5	5	5	5	4	4	4	52
	Litter clearance	221m ²	SR26		31	28	31	30	31	30	31	31	30	31	30	31	365
	Visual Inspect play equip.		SR9		31	28	31	30	31	30	31	31	30	31	30	31	365
	Full inspection play equip.		SR9		2	2	2	2	2	2	2	2	2	2	2	2	24
	Independent Inspection		SR9								1						1
	Leaf yard		SR12	I													
	Inspect for usage						1			1			1			1	4
	Car Park			H													
	Inspect surface	400m ²	SR41		1	1	1	1	1	1	1	1	1	1	1	1	12
	Cut back vegetation from edge	108 lm													1		1

Appendix 3 Management Action Plan 2013 Onwards and Items Completed since 2009

Criteria	Comment	Action	Lead	Cost	Completion
Conservation					
	Update Wildlife Management Plan for 20 wildlife habitat compartments.	Provide management prescriptions for each compartment.	Wildlife and Education team leader/Park Manager	Staff time	June 2015
	The Walled Garden	Re-plant existing beds incorporating wildlife friendly planting.	Parks and Open Spaces project team/FOHP	Proposals being developed as part of the Round 2 HLF Parks for People application	
	Undertake dredging works to ponds 1, 2 and 3	Dredge/remove silt	Parks and Open Spaces project team/FOHP	Proposals being developed as part of the Round 2 HLF Parks for People application	2014
	Undertake dredging works to northern moat and canal	Dredge/remove silt	Parks and Open Spaces project team/FOHP	Proposals being developed as part of the Round 2 HLF Parks for People application	2015
	Obtain Biodiversity Benchmark Award	Investigate criteria and costs. Complete M/Plan	Wildlife and Education team leader/Park Manager	Staff/Volunteer £5,000 for five years	2014
	Achieve Local Nature Reserve Status for Holywells Park	Investigate criteria and costs. Complete M/Plan	Wildlife and Education team leader/Park Manager	Staff time	December 2013
	The Dell	Identify and implement full project	Parks and Open Spaces Project Team Staff time/Community Payback team	Proposals being developed as part of the Round 2 HLF Parks for People application	2012/13 Project identified and started Dec 2010

Structures					
	Holywells Ice House	Investigate presence of Ice House and identify project	Wildlife and Education team leader/Park Manager	Staff time to investigate - Proposals being developed as part of the Round 2 HLF Parks for People application	2009/10
	The Walled Garden	Create opening in wall onto terrace area	Park Manager	Proposals being developed as part of the Round 2 HLF Parks for People application	2010/11 Planning application granted March 2010
	Terrace area	Re-surface terrace area and restore Balustrade Wall	Park Manager	Proposals being developed as part of the Round 2 HLF Parks for People application	2015/16
	Orangery	Restore for use as a community resource.	Parks and Open Spaces Team/ Community Payback/Volunteers	Proposals being developed as part of the Round 2 HLF Parks for People application	2016/17
	The Stable Block	Create Visitor/Education Centre and create volunteer rest facilities	Parks and Open Spaces Team	Proposals being developed as part of the Round 2 HLF Parks for People application	2016/17
	Play area Toilet and kiosk	Create a new toilet and kiosk to complement the renewed play area.	Parks and Open Spaces project team/FOHP	Proposals being developed as part of the Round 2 HLF Parks for People application	
	Leaf yard	Redevelop leaf yard to act as a depot for the park maintenance operation and accommodation for	Parks and Open Spaces project team/FOHP	Proposals being developed as part of the Round 2 HLF Parks for People application	

		FOHP.			
	Cliff Lane and Bishop's Hill entrances.	Major improvement works to increase attractiveness	Parks and Open Spaces project team/FOHP	Proposals being developed as part of the Round 2 HLF Parks for People application	
	Myrtle Road, Nacton Road and Cliff Lane/Landseer Road entrances	Modest improvement works	Parks and Open Spaces project team/FOHP	Proposals being developed as part of the Round 2 HLF Parks for People application	
Sustainability					
	Holywells 'wells renewable energy project'	Utilise on site Hydrological features to install a visual attraction for visitors that creates electricity via turbines. Work in conjunction with local schools to install and use as an education resource.	Wildlife and Education team leader/Park Manager	£10k CSEP (The Community Sustainable Energy Programme)	2014/15
Woodland Management					
	Circular woodland path	Identify and install Trim, Art, History and Nature Trail	Wildlife and Education team leader/Park Manager	£1k from Bill Quinton C/County grant plus others	2011/12
Access					
	Footpath network	Improvement works to improve accessibility and to define footpath hierarchy	Parks and Open Spaces project team/FOHP	Proposals being developed as part of the Round 2 HLF Parks for People application	
Miscellaneous					
	Management and Maintenance	Full review of	Parks and Open Spaces		2012/13

	Plan	Management and Maintenance Plan	team - FOHP		
	Margaret Catchpole land – purchase and restore back to parkland.	Investigate feasibility and options for land use.	Parks and Open Spaces team/Volunteers	Unknown	2019/20

Items completed since 2009					
Criteria	Item description	Action	Lead	Cost	Completion
	Educate/inform visitors of wildlife habitat and species	Install interpretation boards at key habitat areas within the park	Wildlife and Education team leader/Park Manager/FOHP	£10k FOHP Section 106 money from McCarthy & Stone	Completed March 2011
	Bat tree (oak)	Undertake tree work on terrace area to make a feature of retained dead tree. Install fencing.	Wildlife and Education team leader/Park Manager	£3k Ranger BBAA money. Interpretation boards funded by FOHP 106 money	2009/10 Complete 2010 Complete March 2011
	Encourage Kingfisher to breed in Holywells Park	Install artificial Kingfisher nesting habitat on big pond island	Park Manager/Rangers	£1000 plus staff time	2011/12 Complete Feb 2010
	Improve aquatic wildlife education opportunities	Install pond dipping platform(s) on pond 1 or 12	Park Manager/Rangers	£4000	Complete May 2012

	Pond 3 fence	Remove pond 3 chain-link fence	Park Manager	Staff time plus £500 to fence off areas highlighted in Open Water RA	2009/10 Complete Sep 2010
	Holywells Bowls Green	Fence off agreed areas	Park Manager	£1500 plus Community Payback	2009/10 Complete – Feb 2010
	Former paddling pool site	Install weir to raise water levels Install footbridge	Wildlife and Education team leader/Park Manager	£5k – SE Forum money Park Ranger team	2009/10 Funding obtained 2010 Complete – Jan 2012
	Wetland garden refurbishment	Dig out stream ditch and landscape the area including diversion of water to create flow into stream	Wildlife and Education team leader/Park Manager		2010/11 Complete Feb 2010
	Footpath between ponds 3 & 4	Create stone sluice, timber walkway and pipe drain Install fencing on either side of sluice	Park Manager	£7,500 £700	2011/12 Complete April 2011

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	Other ponds and outlets	Improve flow and reduce maintenance	Wildlife and Education team leader/Park Manager	£10	2011/12 Complete Jan 2012
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Appendix 4 Maintenance Specifications

Ref no.	Task	Standard
SR1	Cylinder/Rotary mow collected	<ul style="list-style-type: none"> Grass areas to be cut evenly across the whole surface, with the mower blades set so that no 'ribbing' occurs, to the agreed height for the area usage. Obstacles should have their bases maintained so that the mower can cut up to them leaving no long grass. All grass edges should be managed (sheared, strimmed or 'half mooned') to maintain a defined boundary with neighbouring surfaces. All arisings should be collected. The area should be visually inspected for litter and debris prior to mowing and left in a clean litter free condition on completion.
SR2	Cylinder mow dispersed	<ul style="list-style-type: none"> Grass areas to be cut evenly across the whole surface, with the mower blades set so that no 'ribbing' occurs, to the agreed height for the area usage. Obstacles should have their bases maintained so that the mower can cut up to them leaving no long grass (except around the base of trees). All grass edges should be managed (sheared, strimmed or 'half mooned') to maintain a defined boundary with neighbouring surfaces. Arisings should be dispersed evenly across the whole area. The area should be visually inspected for litter and debris prior to mowing and left in a clean litter free condition after mowing.
SR3	Strim grass	<ul style="list-style-type: none"> Grass areas to be cut evenly across whole surface. No strimming around the base of trees. The area should be visually inspected for litter and debris prior to strimming and left in a clean litter free condition after strimming.
SR4	Rotary mow dispersed	<ul style="list-style-type: none"> Grass areas are to be maintained to a maximum height of 50mm. The grass should be cut evenly across the entire area as close to obstacles as possible. Obstacles should be maintained so as not to detract from the grass area standard. All grass edges should be managed (sheared, strimmed or 'half mooned') to maintain a defined boundary with neighbouring surfaces. Arisings should be evenly dispersed over the grass area leaving the surrounding surfaces as clean as reasonably practicable. The area should be visually inspected for litter and debris prior to mowing and left in a clean litter free condition on completion.
SR5	Terra spike	<ul style="list-style-type: none"> Spikes should avoid areas where tree roots exist. The area should be visually inspected for litter and debris prior to spiking and left in a clean litter free condition on completion.

SR6	Chain harrow	<ul style="list-style-type: none"> • Areas should be checked for moisture levels prior to harrowing. • Ground should break up easily and not remain in clods. • Excessive ruts should be levelled prior to harrowing. • The area should be visually inspected for litter and debris prior to harrowing and left in a clean litter free condition on completion.
SR6	Wildflower cutting	<ul style="list-style-type: none"> • Grass areas should be cut evenly across the entire area • Obstacle bases may need to be cleaned once flailing is complete depending upon the areas function (meadow or flowering verge). • A high percentage of the arisings should be removed from site. • The area should be visually inspected for litter and debris prior to mowing and left in a clean litter free condition after mowing. • Leave over-winter refuge for invertebrates
SR6	Long grass cutting	<ul style="list-style-type: none"> • Grass areas should be cut evenly across the entire area • Obstacle bases may need to be cleaned once flailing is complete depending upon the areas function (meadow or flowering verge). • A high percentage of the arisings should be removed from site. • The area should be visually inspected for litter and debris prior to mowing and left in a clean litter free condition after mowing. • Leave over-winter refuge for invertebrates
SR7	Woodland paths	<ul style="list-style-type: none"> • Keep litter free • Walk every path twice (once in wet, once in dry). • Check for wear and tear, trip hazards, drainage/puddling and other issues. • Maintain short grass on path edge (up to 1 metre from path edge)
SR8	Car Park	<ul style="list-style-type: none"> • Visual check for damage and litter. • Check for misuse
SR9	Stable Block and Courtyard	<ul style="list-style-type: none"> • Ensure building is graffiti and litter clear • Ensure facilities are maintained in a safe manner • Ensure public drinking tap is in full working order and water supply is clean • Ensure vehicles, machinery and large plant enter and exit the courtyard in safe manor • Maintain a welcoming ambience •
SR9	Play area	<ul style="list-style-type: none"> • Keep litter free • Maintain even depth of bark chippings • Equipment and fixings must remain stationary and tight • When equipment is damaged – review its appropriateness • Daily inspection for glass on water play surface

		<ul style="list-style-type: none"> • Keep water play surface free from algae/moss • Maintain clean water supply to water play feature
SR10	Bowls greens	<ul style="list-style-type: none"> • The playing surface should be level. • The grass sward should be consistent and maintained to an acceptable height for the club league, normally 5mm. (EBA) during the playing season. • The playing surface should be pest & disease free, including worm casts. • The playing surface should be weed & moss free with no build up of 'thatch' • The playing surface should be fertilised & irrigated to maintain optimum growing conditions. • The playing surface should be maintained in a well drained condition across the entire surface area to reduce standing water and enable play to continue as soon as possible after irrigation or rain. • Re-instatement of worn areas should be attended to during autumn maintenance at the end of the playing season. • All grass banks & surrounds should be pest, disease and weed free to reduce contamination of the playing surface. Any banking should be of the correct profile for the club league requirements. • The perimeter gully should be maintained to the correct width & depth with all boarding in good serviceable condition. Gully base fill should be of an agreed specification, free from debris, weeds & leaves.
SR11	Toilets	<ul style="list-style-type: none"> • Maintain clean toilets • Keep litter and graffiti free
SR12	Leaf Yard	<ul style="list-style-type: none"> • Maintain clean yard • Provide space for all park equipment and short term storage for waste products
SR13	Pond 1	<ul style="list-style-type: none"> • Keep litter free • Maintain solid edges • Maintain 50% weed cover in pond • Maintain shrub cover on island (M8E) • Maintain wildlife shrub layer as variety of structures
SR14	Pond 2	<ul style="list-style-type: none"> • Keep litter free • Maintain solid edges • Maintain 50% weed cover in pond • Maintain shrub cover on island (M8E) • Maintain wildlife shrub layer as variety of structures
SR15	Pond 3	<ul style="list-style-type: none"> • Keep litter free • Maintain solid edges • Maintain 50% weed cover in pond • Maintain shrub cover on island (M8E) • Maintain wildlife shrub layer as variety of structures
SR16	Pond 4 + Moat	<ul style="list-style-type: none"> • Keep litter free • Maintain solid edges

		<ul style="list-style-type: none"> • Maintain 50% weed cover in pond • Maintain shrub cover on island (M8E) • Maintain wildlife shrub layer as variety of structures
SR17	Pond 5	<ul style="list-style-type: none"> • Keep litter free • Maintain solid edges • Maintain 50% weed cover in pond • Maintain shrub cover on island (M8E) • Maintain wildlife shrub layer as variety of structures
SR18	Pond 6	<ul style="list-style-type: none"> • Keep litter free • Maintain solid edges • Maintain 50% weed cover in pond • Maintain shrub cover on island (M8E) • Maintain wildlife shrub layer as variety of structures
SR19	Pond 7	<ul style="list-style-type: none"> • Keep litter free • Maintain solid edges • Maintain 50% weed cover in pond • Maintain shrub cover on island (M8E) • Maintain wildlife shrub layer as variety of structures
SR20	Pond 8	<ul style="list-style-type: none"> • Keep litter free • Maintain solid edges • Maintain 50% weed cover in pond • Maintain shrub cover on island (M8E) • Maintain wildlife shrub layer as variety of structures • Maintain revetments and drainage ditches
SR21	Canal	<ul style="list-style-type: none"> • Keep litter free • Maintain solid edges • Maintain 50% weed cover in pond • Maintain shrub cover on island (M8E) • Maintain wildlife shrub layer as variety of structures
SR22	Bowls Pavilion	<ul style="list-style-type: none"> • Keep litter and graffiti free • Maintain woodwork
SR23	Stable Block Toilets	<ul style="list-style-type: none"> • Keep graffiti free • Ensure toilets are cleaned to a high standard • Ensure facilities are maintained in a safe manner
SR24	Inspect for	<ul style="list-style-type: none"> • Area should be free from litter/graffiti. • All unauthorised obstacles should be removed.

	litter/damage	<ul style="list-style-type: none"> • Visual check for trip hazards, damaged furniture.
SR25	Inspect for appearance	<ul style="list-style-type: none"> • Visual check on landscaping situation. • Visual check on wear and tear.
SR26	Litter pick Park	<ul style="list-style-type: none"> • Follow set route • Remove all litter • Explore hidden areas • Use appropriate equipment including sharps boxes, gloves etc. where necessary.
SR27	Empty litter bins	<ul style="list-style-type: none"> • Follow set route • Remove all litter from bin and surrounding area. • Use appropriate PPE.
SR28	Clean litter bins	<ul style="list-style-type: none"> • Follow set route • Use appropriate PPE • Wipe clean with antiseptic wash and warm water
SR29	Empty dog bins	<ul style="list-style-type: none"> • Follow set route • Remove bagged dog waste from bin and replace bag. • Remove bagged dog waste within vicinity of bin. • Use appropriate PPE.
SR30	Clean dog bins	<ul style="list-style-type: none"> • Follow set route • Use appropriate PPE • Wipe clean with antiseptic wash and warm water
SR31	Check info boards	<ul style="list-style-type: none"> • Remove out of date posters • Ensure all posters are visible • Insert new posters • Check timeplates are visible and up to date
SR32	Clean info boards	<ul style="list-style-type: none"> • Clean exterior of boards with wet soft cloth • Clean plastic with vinegar based cleaner
SR33	Bedding	<ul style="list-style-type: none"> • Annual beds should be maintained weed free. • Bedding plants should be deadheaded as far as reasonable practicable. • Standard or 'dot' plants should be staked as needed to support them in an upright state. • The beds should be irrigated as required to maintain growth throughout the season. • Dead or dying plants shall be removed and affected areas replanted if reasonably practicable to do so. • Litter should not be allowed to accumulate in any annual bed.
SR34	Fuchsia bed	<ul style="list-style-type: none"> • Fuchsia bed should be maintained weed free • Litter should not be allowed to accumulate in the fuchsia bed • All plants should be cut to ground level at the end of season

SR35	Herbaceous Bed	<ul style="list-style-type: none"> • Herbaceous bed should be maintained weed free. • Plants should be deadheaded as appropriate. • Dead or dying plants shall be removed and affected areas replanted in the next season • Litter should not be allowed to accumulate in the herbaceous bed.
SR36	Rose beds	<ul style="list-style-type: none"> • Roses should be pruned in accordance with good horticultural practice for their variety and situation. • Fertiliser shall be applied in order to maintain healthy optimum growth. • Pest & disease should be identified and treated as far as reasonably practicable. • Mulched surfaces should be maintained in a clean condition totally covering any membrane and suppressing weed growth to a maximum depth of 3” – 75mm.
SR37	Shrub beds	<ul style="list-style-type: none"> • Shrubs should be maintained in a way that is suitable to their location, so that they do not suppress one another or obstruct, paths, windows, doorways or otherwise create a public hazard. • When pruning is undertaken, every attempt should be made to maintain the desired feature, e.g. flower production, coloured stems etc. • Dead wood should be removed from shrubs as far as reasonably practicable. • The border should be maintained in a weed free condition. • Mulched surfaces should be maintained in a clean condition totally covering any membrane and suppressing weed growth to a maximum depth of 3” – 75mm. • Litter should not be allowed to accumulate in any shrub border
SR38	Hedges	<ul style="list-style-type: none"> • Hedges should be trimmed according to their situation. • All cutting should be removed • Coppicing of hedges should be carried out only with specific species or specific sites – follow good practice and advise through Park Management Board
SR39	Trees	<ul style="list-style-type: none"> • Immature trees should have a supporting stake/ties in good serviceable condition as required for the species to grow vertically. • All guards should be in a good serviceable condition. • Damaged or broken branches should be removed. • Immature trees should be irrigated as required to maintain healthy growth. • Tree bases should be maintained in a clean defined condition and mulched where possible in grass areas. • Basal growth should be trimmed close to the trunk annually to maintain a good visual appearance. • Immature trees that die should be reported via the Assistant Manager - Arboriculture for replacement during the next planting season.
SR40	Benches	<ul style="list-style-type: none"> • Benches should be given a visual inspection for vandalism/other damage • Every two years the bench should be removed and cleaned/sanded/oiled before being replaced.
SR4I	Hard surface inspect	<ul style="list-style-type: none"> • Walk every path twice (once in wet, once in dry). • Check for wear and tear, trip hazards, drainage/puddling and other issues.

SR42	Path sweep	<ul style="list-style-type: none"> • Use of mechanical road sweep to remove excess organic matter at edge of path
SR43	Path clear	<ul style="list-style-type: none"> • Keep paths clear of leaves/other debris • Maintain short grass on path edge (up to 1 metre from path edge)
SR44	Fences/gates	<ul style="list-style-type: none"> • Walk fence lines inspect for damage/holes. • Check for build up of organic matter. • Oil gate hinges and padlocks.
SR45	Leaf removal	<ul style="list-style-type: none"> • Areas of open grassland to be raked and cleared at end of leaf fall. • Leaves removed to be stored in leafyard or taken to Colchester Rd compost bays • Majority of areas should be mulched and left (dependant on depth of leaf layer).
SR46	Drains	<ul style="list-style-type: none"> • Visual inspection of drain for damage and organic matter build up. • Remove all organic matter. • Check water flow in piped drains.
SR47	Buildings	<p>As two of the buildings are listed, the Council may be required to consult with English Heritage with regard to works to their historic fabric, other than basic maintenance as set out below.</p> <p>The advice and guidance of the architect should be sought where conservation and repair works affect the historic fabric. The architect for the project is Thomas Ford & Partners, 177 Kirkdale, Sydenham, London SE26 4QH. Tel: 020 8659 3250.</p> <p>The maintenance plan should be kept with the Building Manual/Health and Safety file provided by the Principal Contractor on completion of the project works. Maintenance and repair works should be recorded in the manual once completed. It is recommended that in addition to regular inspections as part of the maintenance regime, a formal programme of Quinquennial Inspections be implemented, with written reports prepared giving an assessment of the condition of the buildings and the needs for maintenance and/or repair.</p> <p>Items such as vandalism (e.g. broken glass etc.), storm damage (e.g. missing roof slates), blocked gutters or drains should be attended to as soon as they occur. This will ensure minimal damage to the building fabric.</p> <p>It is recommended that the following visual checks be carried out at frequent intervals and remedial works carried out as required:</p> <ul style="list-style-type: none"> • Note occurrence of slipped or damaged roof slates and remedy as appropriate (e.g. replace missing or broken slates). • Note occurrence of spalled masonry, defective render or failed pointing, which may occur as a result of frost damage, and remedy as appropriate (e.g. carry out localised repair and repointing of masonry). • Note occurrence of defective paintwork, which can give rise to wet rot in timber and corrosion of metalwork if left unattended. Carry out localised redecoration as necessary to maintain the paintwork in sound condition. • Note occurrence of dust falling from exposed structural timbers, including those in accessible roof voids, which may indicate

		<p>damage by wood boring insects. In this eventuality, it may be necessary to obtain advice from a specialist in timber decay before any remedial works are carried out.</p> <ul style="list-style-type: none"> • Note occurrence of water penetration and remedy as appropriate (e.g. replace broken glass, refix and/or renew glazing seals). • If sources of water penetration cannot be identified, or any of the above defects are persistent or widespread, it is recommended that the advice of the architect be sought. <p>Six Monthly</p> <p>It is recommended that the following routine maintenance operations be carried out at least twice yearly, say at Easter, (after the end of winter) and in the autumn (after all leaves have fallen from the trees). It would be beneficial for them to be carried out more frequently, as and when required:</p> <ul style="list-style-type: none"> • Remove leaves and other debris from roof slopes (slated and glazed) and flat roofs. • Clean out eaves gutters, valley gutters, parapet gutters (on west side of Orangery) and downpipes. • Clean windows/glass doors/screens to Stable Block, and windows/roof glazing to Orangery. • Clean out clayware gulleys at ground level (remove debris and flush through outlets). • Lift inspection chamber covers, clean and flush through chambers if required, clean, grease and re-fit covers. • Remove plant growth from the building fabric and adjacent footpaths. • Carry out inspection of green roof to Toilet Block to ensure that no rubbish has accumulated, surrounding shingle perimeters are kept clear and vegetation coverage to main roof area remains adequate. <p>Annually</p> <ul style="list-style-type: none"> • Inspect and service mechanical and electrical equipment, kitchen and sanitary fittings in accordance with manufacturer's recommendations • Inspect doors, sash windows and opening casements, including hinges, locks and fasteners, ease/adjust/lubricate as required. • Check tightness of fixings on pivot joints, check and lubricate all moving parts in the Orangery rooflight opening mechanisms. • Inspect green roof to Toilet Block as above. <p>Three Yearly</p> <ul style="list-style-type: none"> • Carry out full external redecoration (woodwork and rainwater goods).
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		<p>Five Yearly</p> <ul style="list-style-type: none"> • Carry out full inspection and test of electrical installations (to be carried out by NIEIC registered contractor). • Carry out full internal redecoration (walls, ceilings and woodwork). <p>Some of the above works can be carried out by the Council's own staff, however operations such as high level works to the Stable Block Tower and cleaning of the Orangery roof glazing would be best carried out by a specialist contractor, since difficult access issues have to be taken into consideration. The green roof to the Toilet Block should become well established after a few months so that it requires little maintenance other than periodic inspection as above.</p>
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January 2013
Holywells Park, Ipswich

Appendix 5 Cost Plan

HOLYWELLS PARK

MANAGEMENT & MAINTENANCE COSTS - 10 YEAR PERIOD

	Current Spend	2013/14 YEAR -1 Development : Construction	2014/15 YEAR 0 Construction	2015/16 YEAR 1 Warranty & Maintenance	2016/17 YEAR 2 Maintenance	Grant Ends 2017/18 YEAR 3 Maintenance	2018/19 YEAR 4 Maintenance	2019/20 YEAR 5 Maintenance	2020/21 YEAR 6 Maintenance	2021/22 YEAR 7 Maintenance	2022/23 YEAR 8 Maintenance	2023/24 YEAR 9 Maintenance	2024/25 YEAR 10 Maintenance	10 Year Total
MANAGEMENT AND OPERATIONAL COSTS														
Staff - Park Manager	11,300	11,526	11,757	11,992	12,231	12,476	12,726	12,980	13,240	13,505	13,775	14,050	14,331	154,588
Staff - Wildlife Ranger	8,100	8,262	8,427	8,596	8,768	8,943	9,122	9,304	9,490	9,680	9,874	10,071	10,273	110,811
Staff - Grounds Maintenance	24,430	24,919	25,417	25,925	26,444	26,973	27,512	28,062	28,624	29,196	29,780	30,376	30,983	334,210
Staff - Park Patrol	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	12,190	12,434	12,682	136,803
Evaluation & Monitoring	0	0	0	500	510	520	531	541	552	563	574	586	598	5,475
Training Costs	170	473	483	493	502	512	523	533	544	555	566	577	589	6,349
Health & Safety	120	122	125	127	130	132	135	138	141	143	146	149	152	1,642
Telephone	400	408	0	424	433	441	450	459	468	478	487	497	507	5,054
Broadband	6,850	6,987	7,127	7,269	7,415	7,563	7,714	7,868	8,026	8,186	8,350	8,517	8,687	93,710
Office Costs - stationery etc.	70	71	73	74	76	77	79	80	82	84	85	87	89	958
Equipment servicing	550	561	572	584	595	607	619	632	644	657	670	684	698	7,524
IT system updates	1,400	1,428	1,457	1,486	1,515	1,546	1,577	1,608	1,640	1,673	1,707	1,741	1,776	19,152
Water	2,570	2,621	0	2,726	2,781	2,836	2,893	2,951	3,010	3,070	3,132	3,194	3,258	32,473
Electric	3,200	3,264	0	3,395	3,462	3,532	3,602	3,674	3,748	3,823	3,899	3,977	4,057	40,433
M&E Utility Costs	0	0	0	10,976	11,196	11,419	11,648	11,881	12,118	12,361	12,608	12,860	13,117	120,184
CCTV maintenance	200	200	200	2,000	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	22,299
CCTV Monitoring	0	0	0	800	816	832	849	866	883	901	919	937	956	8,760
Totals	69,360	71,043	66,041	87,979	89,738	91,533	93,364	95,231	97,136	99,078	101,060	103,081	105,143	1,100,427
STABLE BLOCK														
External painting every 5 years	0	0	0	0	0	0	12,000	0	0	0	0	13,200	0	25,200
Gutter clearing every 12 months	0	0	0	900	900	900	1,000	1,000	1,000	1,300	1,300	1,300	1,600	11,200
Joinery and other sundry maintenance	0	0	0	0	100	500	110	110	500	120	120	500	130	2,190
Window cleaning every 6 months	0	0	0	500	500	500	600	600	600	700	700	700	800	6,200
Internal Cleaning of buildings	6,500	7,000	0	7,000	7,000	7,000	7,200	7,200	7,200	7,400	7,400	7,400	7,600	79,400
Clock maintenance	200	250	250	250	250	275	275	275	300	300	300	300	325	3,300
Lighting maintenance	50	100	0	0	100	1,000	110	110	1,000	120	120	1,100	130	3,890
Lime mortar maintenance	0	0	0	0	0	0	200	200	200	200	200	200	200	1,400
Legionella and descale, clean and disinfect water systems	200	450	0	450	450	1,000	460	460	1,100	470	470	1,200	480	6,990
Heating & Ventilation (Air Source Heat Pumps)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Disabled toilet alarms	70	80	0	80	80	80	90	90	90	100	100	100	110	1,000
Fixed wire testing	95	120	0	0	120	500	130	130	500	140	140	500	150	2,430
Fire alarms	160	180	0	180	180	180	190	190	190	200	200	200	210	2,100
Fire extinguishers	280	300	0	300	300	750	320	320	780	340	340	810	360	4,920
Emergency lighting	120	150	0	0	150	150	160	160	160	170	170	170	180	1,620
PAT	100	120	0	120	120	120	130	130	130	140	140	140	150	1,440
Emergency repairs	3,500	0	0	0	500	500	500	1,000	1,000	1,000	1,500	1,500	1,500	9,000
Drainage rates	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Building Rates (Exempt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11,275	8,750	250	9,780	10,750	13,430	23,475	11,975	14,725	12,700	13,200	29,320	13,925	162,280
ORANGERY														
External painting every 5 years	0	0	0	0	0	0	0	10,500	0	0	0	0	12,000	22,500
Joinery and other sundry maintenance	0	0	0	0	100	500	110	110	500	120	120	600	130	2,290
Window cleaning every 6 months	0	0	0	1,200	1,200	1,200	1,250	1,250	1,250	1,300	1,300	1,300	1,400	12,650
Internal Cleaning of buildings	0	0	0	300	300	300	300	300	500	500	500	500	500	4,000
Lighting maintenance	0	0	0	0	100	500	110	110	500	120	120	500	130	2,190
Legionella and descale, clean and disinfect water systems	0	0	0	200	200	500	210	210	520	220	220	530	230	3,040
Heating & Ventilation	0	0	0	500	500	500	500	500	500	500	500	500	500	5,000
Fixed wire testing	0	0	0	0	120	500	130	130	500	140	140	500	150	2,310
Fire alarms	0	0	0	150	150	150	160	160	160	170	170	170	180	1,620
Fire extinguishers	0	0	0	250	250	250	260	260	260	270	270	270	280	2,620
Emergency lighting	0	0	0	120	120	120	130	130	130	140	140	140	150	1,320
PAT	0	0	0	40	40	40	50	50	50	60	60	60	70	520
Emergency repairs	0	0	0	0	500	500	500	750	750	750	1,000	1,000	1,000	6,750
Totals	0	0	0	2,760	3,580	5,060	3,710	14,460	5,620	4,290	4,540	6,070	16,720	66,810
PLAY AREA TOILETS AND KIOSK														
General Maintenance	0	0	0	0	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,000
PARKLANDS														
Painting entrance gates (2 no. vehicular + 3 no. pedestrian)	0	0	0	0	0	0	500	0	0	0	0	600	0	1,100
Painting & decorating railings (boundary & play area).	0	0	0	0	0	700	0	0	700	0	0	800	0	2,200
Preservation treatment to timber ranch style fencing	0	0	0	0	0	500	0	0	500	0	0	600	0	1,600
Drainage clearance - annual	0	0	0	0	0	0	1,600	1,600	1,600	1,700	1,700	1,700	1,800	11,700
Interpretation	0	0	0	0	0	0	0	300	300	350	350	400	400	2,100
Furniture	0	0	0	0	0	0	0	500	500	550	550	600	600	3,300
Signs	0	0	0	0	0	0	0	520	520	540	540	560	560	3,240
Equipment replacement (play area & surface maintenance)	0	0	0	200	200	200	200	600	200	200	200	200	600	2,800
De-silting the remaining ponds	0	0	0	0	0	0	0	0	5,000	5,000	0	0	0	10,000
Updating welcome signs	0	0	0	0	0	0	0	520	520	540	540	560	560	3,240
Grounds Maintenance (See separate sheet)	56,497	57,627	58,780	59,955	61,155	62,378	63,625	64,898	66,196	67,520	68,870	70,247	71,652	772,902
Play Area Water Play Annual commissioning	3,463	3,532	3,603	3,675	3,748	3,823	3,900	3,978	4,057	4,139	4,221	4,306	4,392	47,375
Totals	59,960	61,160	62,383	63,830	65,103	67,601	69,825	72,916	80,093	80,538	76,971	80,573	80,564	861,557
Total Management & Maintenance Costs														
Operational	69,360	71,043	66,041	87,979	89,738	91,533	93,364	95,231	97,136	99,078	101,060	103,081	105,143	1,100,427
Stable Block	11,275	8,750	250	9,780	10,750	13,430	23,475	11,975	14,725	12,700	13,200	29,320	13,925	162,280
Orangery	0	0	0	2,760	3,580	5,060	3,710	14,460	5,620	4,290	4,540	6,070	16,720	66,810
Play Area Toilets & Kiosk	0	0	0	0	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,000
Parklands	59,960	61,160	62,383	63,830	65,103	67,601	69,825	72,916	80,093	80,538	76,971	80,573	80,564	861,557
Total	140,595	140,953	128,674	164,349	170,171	178,624	191,374	195,582	198,574	197,607	196,771	220,044	217,352	2,200,074

HOLYWELLS PARK	Current	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
	Annual Cost	Year -1	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	£	£	£	£	£	£	£	£	£	£	£	£	£
PARKLANDS MANAGEMENT & MAINTENANCE COSTS													
GROUNDS MAINTENANCE													
Grassed Areas		20,281.82	20,282	20,282	20,282	20,282	20,282	20,282	20,282	20,282	20,282	20,282	20,282
Grass edging	2,061.49												
Mow Regimes	14,479.14												
Strim regime	3,539.56												
Tree Maintenance - feather lime	201.63												
Bedding & Borders		8,771.59	8,771.59	8,771.59	8,771.59	8,771.59	8,771.59	8,771.59	8,771.59	8,771.59	8,771.59	8,771.59	8,771.59
Bedding maintenance	281.63												
Herbaceous Border	635.16												
Rose Maintenance	175.88												
Shrub maintenance	7,678.92												
Hedge Trim	266.01	266.01	266	266	266	266	266	266	266	266	266	266	266
Play Areas Re-Level surface	582.76	582.76	583	583	583	583	583	583	583	583	583	583	583
General Maintenance		24,235.40	24,235	24,235	24,235	24,235	24,235	24,235	24,235	24,235	24,235	24,235	24,235
Inspect Pond / Drains	1,283.10												
Leaf Rake Boxed Mown Areas	274.97												
Sweep floor	855.37												
Sweep solid surfaces - manually	1,501.12												
Toilet Clean	704.11												
Empty Litter Bins	3,231.82												
Litter Pick	16,384.91												
Park Operation		2,359.77	2,360	2,360	2,360	2,360	2,360	2,360	2,360	2,360	2,360	2,360	2,360
Gate Opening	2,359.77												
Total		56,497											
Inflation - Annual Allowance	2.00%	0	1,130	1,153	1,176	1,199	1,223	1,248	1,273	1,298	1,324	1,350	1,405
Enhanced Total		56,497	57,627	58,780	59,955	61,155	62,378	63,625	64,898	66,196	67,520	68,870	71,652

HLF Ref	Volunteer Time Description	Quantity	Skill Level	Volunteers Numbers	Time Days Per Annum
L1	Maze maintenance Planting maintenance - ornamental grasses and perennials Path clearance & Leaf removal Rose tending	407m2 27m2	Unskilled Skilled	5 1	10 10
L2	Terrace Planting Planting maintenance - shrubs, perennials and topiary	78m2	Unskilled Skilled	5 1	5 5
L5	Cliff Lane Entrance Planting maintenance - shrubs and perennials (adjacent to the car park)		See L2		
L7	Bishops Hill Entrance Planting maintenance - low woodland shrubs	63m2	Unskilled Skilled	5 1	3 3
L10	Refurbish Footpaths Woodland Path maintenance Car Park to Nacton Road Nacton Road to Bishops Hill Canal Path - Myrtle Road to Cliff Lane Canal path - Bridges Play area & around iplay Car Park upgrade to ensure accessibility for disabled users Dell footpath maintenance	265m 728m 540m 20m 400m2 100m	Unskilled Skilled	5 1	6 6
L12	Recreation of main pond network Revetments maintenance		Unskilled Skilled	5 1	1 1
L13	Recreate lower section of early 20th century garden Planting maintenance - shrubs and perennials	400m2	Unskilled Skilled	5 1	10 10
L17	Refurbish Ornamental Shrubberies (Mansion Gardens) Planting maintenance - shrubs and perennials		Unskilled Skilled	5 1	10 10
L19	Re-create the Wetland Gardens (Dell Gardens) Planting maintenance - shrubs and perennials	1600m2	Unskilled Skilled	5 1	10 10
L20	New Park Furniture Furniture maintenance - new benches	22	Unskilled Skilled	0 1	0 1
L21	New signage Signage maintenance - marker signs	20	Skilled	1	1
L23	Amphitheatre Path clearance & Leaf removal		Unskilled	5	12
N34	Trim trail / Sculpture Maintenance of trim trail and other trails		Unskilled Skilled	5 1	1 1
N35	Orchards Maintenance of Bee hives		Friends of Holywells Park Skilled	1	34
N37	Proposed footpaths Path clearance & Leaf removal		Unskilled	5	1
N38	Woodland Management Brimstone Alley Gainsborough View Bluebell Walk East of Canal path General maintenance of visitor attraction points, i.e. Interpretation Boards, Bird feeding station, eagles nest, spring		Unskilled Skilled Unskilled	5 1 5	3 3 3
N48	Outdoor Classroom Maintenance of outdoor classrooms		Unskilled	1	3

January 2013
Holywells Park, Ipswich

Appendix 6 Parks and Open Spaces Vision

PARKS & OPEN SPACES VISION

Ipswich has some glorious parks and a network of high quality open spaces covering some 442 hectares - a scale normally associated with much larger towns and cities, this is a key ingredient in what makes the town attractive to residents and visitors alike and supports our claim to being the greenest town in Suffolk.

Our aspirations are to:

- Make our parks and open spaces safe, secure and accessible to everyone**
- Improve community ownership and civic pride in our Parks and Open Spaces**
- Manage and protect our Parks and Open Spaces in a sustainable way**
- Encourage greater use of the parks and open spaces to encourage healthy lifestyles in all our communities**
- To review our delivery strategies with the aim of increasing the number of Green Flag Awards**
- Maximise use of resources and other sources of funding**
- Review and produce key policy documents and action plan detailing key aims and the proposed actions to take the vision forward**

Vision

Our Vision for Parks in the County's Greenest Town

To safeguard the environment and improve everyone's quality of life by working in partnership to ensure safe, attractively designed, well used, well managed parks and open spaces for the benefit of all our communities and visitors alike.

Key Actions and Targets:

Aim 1

To focus activity around the Borough's three flagship parks - Christchurch, Holywells and Chantry making them hubs for the support of the rest of our parks, open spaces and allotments. (List of sites attached)

1a Retain Green Flag Accreditation for Christchurch Park and achieve Green Flag status for Holywells Park in 2011 and Chantry Park in 2013

1b Review the location of parks management and support staff to best meet the needs of all parks and open spaces.

1c Review, re-launch and raise the profile of the Park Patrol Service based in these areas and improve enforcement capacity.

1d Work closely with local police and the 'Safer Neighbourhood Teams' in order to ensure the Council's Parks and Open Spaces are as safe as possible

1e Accessibility for all and a review of park by-laws.

Aim 2

Enable communities to become involved in the management and maintenance of their local park and / or open space by aiding the establishment of park friends groups, management boards and self-run clubs

2a Support existing and encourage the development of new constituted Friends Groups, establishing a Friends of Chantry Park in 2011

2b Establish a Management Board for Chantry Park in 2011 and pursue the option of allowing Park Management Boards to chair meetings

2c Review the terms of reference of the Park Management Boards.

2d Encourage self-management of bowling greens by bowls clubs, licence agreement entered into with Holywells Bowls Club in 2010

2e Explore management options for the improvement of allotment gardens.

Aim 3

Encourage input and assistance from individuals, the voluntary sector, community payback, business sector and other groups through improved partnership working.

3a Increase volunteer involvement (time / cash equivalent from £41,000 in 2009 to £43,000 in 2010) i.e. 5% annual increase

3b Number of successful projects completed by community payback increased year on year

3c Seek additional external financial support, including from the private sector, for park and open space projects

Aim 4

Work in partnership with colleagues in neighbouring councils and other key stakeholders to ensure that the natural environment and sensitive wildlife habitats are protected from damage, and safeguarded for future generations.

4a Support wildlife and conservation initiatives and protect, care for and plant more trees.

4b Subject to revenues, explore possibility of a new visitor centre at Orwell Country Park in the longer term.

4c Develop collaborative working to ensure due regard for parks and open space is given in assessing planning applications

Aim 5

Promote the town's parks and open space in order to raise awareness of their leisure and amenity value, heritage interest and high quality landscapes, encouraging use by existing communities and attracting new visitors helping to boost the local economy.

5a Update and develop a Parks and Open Spaces Policy statement and delivery Strategy by 2012

5b Promote the service via Council website

5c Provide legacy to 2012 Olympics, e.g. creation of Nordic health walks, trim trails, tree feature celebrating five rings

5d Promote the importance of parks & open spaces to health & as a resource for exercise & sport.

5e Promote and raise awareness of the benefits of the Council's play facilities

Aim 6

Organise and facilitate a range of events and activities in our parks and open spaces, improving social inclusion and providing increased opportunity for people to participate in an active lifestyle, addressing health inequalities especially among specific target groups, e.g. children in poverty and the lack of physical activity by 65+ age range.

6a Support Ipswich in Bloom and annual entry into Anglia In Bloom

6b Increase visitor numbers to flagship parks

6c Increase events in parks and open space

Aim 7

Provide cost effective services and invest in staff development and health and safety.

7a Agree an improvement plan in 2010 to deliver £600,000 of savings over the next three years

7b Assess annual training needs and implement action plan

7c Proactively seek to reduce the level work related accidents to achieve above average industry performance measure

7d Ensure an apprentice in each of Flagship parks Ensure an apprentice in each of the Flagship parks

January 2013
Holywells Park, Ipswich

Appendix 7 Planning Policy Context

Appendix 1 – Planning Policy context and capital funding sources

The Planning System

1. The current planning system is set out by the Planning and Compulsory Purchase Act 2004, as amended by the Planning Act 2008 and the Localism Act 2011. The 2004 Act set out the requirement for a Local Development Framework to be prepared for each area of England and Wales, consisting of a number of written statements and plans.
2. The Localism Act 2011 renamed the Local Development Framework the Local Plan. For Ipswich Borough, the Local Plan consists of Development Plan Documents (DPDs) - the Core Strategy and Policies DPD ('Core Strategy') adopted in 2011, and the Site Allocations and Policies DPD incorporating the IP-One Area Action Plan (still under preparation) - and some remaining 'saved' policies from the 1997 Local Plan. Some saved policies from 1997 remain in force, but will in time be replaced by the Site Allocations and Policies DPD. There are also Supplementary Planning Documents, which can be prepared to add detail to policies contained in DPDs to aid their implementation.
3. The Regional Strategy for Ipswich is set out in the East of England Plan 2008. Whilst this plan will be phased out in due course, it is currently (2012) part of the development plan for Ipswich, together with the Local Plan. It identifies among other things, that Ipswich is a key centre for development and a priority area for regeneration. The key requirements of the Regional Strategy are reflected within the Ipswich Core Strategy.
4. The development plan is relevant because section 38 (b) of the Planning and Compulsory Purchase Act 2004 states that, in the consideration of planning applications, '...the determination must be made in accordance with the plan unless material considerations indicate otherwise.'

Core Strategy Policies

5. The Core Strategy December 2011 sets out the development strategy for the Borough up to 2027. It is the key document for the determination of any application made to the Council under the Planning Acts.
6. Whilst the entire document should be referred to in conjunction with other planning information adopted as policy by the Council, the key policies for open space are set out below.

Policy CS16: Green Infrastructure Sport and Recreation

The Council will protect, enhance and extend the network of green corridors, open spaces, sport and recreation facilities for the benefit of biodiversity, people and the management of flood risk. It will do this by:

- a. requiring all developments to contribute to the provision of open space according to the Borough's standards, identified strategic needs and existing deficits in an area;

- b. requiring major new developments to include on-site public open spaces and wildlife habitat. On-site provision must create a network or corridor with existing green infrastructure where such a network exists beyond the site boundaries;
- c. supporting proposals or activities that protect, enhance or extend open spaces and sport and recreation facilities;
- d. working with partners to prepare and implement management plans for green spaces, including visitor management plans for key parts of European sites within the Suffolk Coast and Heaths AONB to be completed by 2015, and a plan for Orwell Country Park that will result in a reduced impact upon birds in the Orwell Estuary;
- e. supporting the Greenways Project in working with communities and volunteers to manage green corridors in Ipswich;
- f. working with partners to improve green infrastructure provision and link radial green corridors with a publicly accessible green rim around Ipswich;
- g. working with partners to ensure the provision of a new country park in the urban fringe of north eastern Ipswich (e.g. within any Northern fringe development - see policy CS10);
- h. promoting improved access to existing facilities where appropriate; and
- i. reviewing the town's estate of sports facilities to consider how they can best meet the needs of a growing population.

The IP-One Area Action Plan and Site Allocations and Policies development plan document will identify existing, new and proposed open spaces, sport and recreation facilities and green corridors.

Policy DM28: Protection of Open Spaces, Sport and Recreation Facilities

Development involving the loss of open space, sports or recreation facilities will only be permitted if:

- a. the site or facility is surplus in terms of all the functions an open space can perform, and is low value and poor quality, as shown by the Ipswich Open Space, Sport and Recreation Facilities Study 2009; or
- b. alternative and improved provision would be made in a location well related to the users of the existing facility.

Policy DM29: Provision of new Open Spaces, Sport and Recreation Facilities

All residential developments, and non-residential developments of 1,000 sq.m floorspace or more, will be required to provide and/or contribute to public open spaces and sport and recreation facilities, to meet the needs of their occupiers.

In all major developments (10 dwellings or 1,000 sq.m non-residential development or more), at least 10% of the site area, or 15% in high density developments, should consist of incidental green space (usable by the public in relation to residential schemes).

Further provision or contribution will be sought according to the size of the proposed development and the quantity and quality of existing open spaces and sports and recreation facilities within the catchment area of the site, as identified by the Ipswich Open Space, Sport and Recreation Study 2009 and subsequent monitoring. Provision will be made in accordance with the standards set out in Appendix 6.

One-for-one replacement dwellings will be exempt from the requirements of the policy, because they are likely to have a minimal impact on demand for facilities. In addition, only certain types of public open space will be required for elderly persons' accommodation and nursing homes.

The requirement will apply to all schemes, unless it can be demonstrated that this would lead to the scheme being unviable and/or site-specific matters so justify. In such cases, a reduced level of provision will be negotiated with the applicant.

7. A review of the Core Strategy will be started in 2012/13, which may result in modifications to the policies.

National Planning Policy Framework

8. The National Planning Policy Framework (NPPF) published on 27th March 2012 provides the background policy for planning decisions in England. The NPPF is the basis on which all planning decisions are made, in conjunction with the Core Strategy and other development plan documents adopted by the Council.
9. The NPPF replaces previous guidance provided in Planning Policy Guidance Notes (PPGs) and Planning Policy Statements (PPSs). Whilst the majority of PPGs and PPSs have been superseded by the NPPF there are a few exceptions such as the Waste Management PPS10. The majority of good practice guidance documents and companion guides associated with all of the former PPGs and PPSs remain in force. This includes the PPG17 Companion Guide.
10. The NPPF advises that the purpose of planning is to help achieve sustainable development. Whilst it relates to all development, one of the aims is to conserve and enhance the natural environment.
11. In paragraph 73 of the NPPF the Government recognises the value that high quality open space can give to the health and wellbeing of communities. It sets out an approach to protecting existing open spaces and addressing deficits.
12. The NPPF also introduces a new designation of open space called 'Local Green Space' which can be identified by local communities and allocated through neighbourhood and local plans. It would have the same status as green belt. The NPPF identifies the circumstances in which this new designation should and should not be used (paragraph 77), for example it should not be used for extensive tracts of land.
13. In relation to biodiversity, the NPPF requires local planning authorities to (paragraphs 109-117):
 - recognise the wider benefits of ecosystem services;

- minimise impacts on biodiversity and provide net gains in biodiversity where possible;
- establish coherent ecological networks that are more resilient to current and future pressures;
- plan positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure;
- plan for biodiversity at a landscape-scale across local authority boundaries;
- identify and map components of the local ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them and areas identified by local partnerships for habitat restoration or creation; and
- promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan.

Funding Streams associated with External Funding of Capital Projects

New Homes Bonus

14. The New Homes Bonus is a Government incentive to local planning authorities to enable the creation of new homes. The Government undertakes to match fund council tax raised as a result of residential development for 6 years. Additional funds are available for affordable homes. All homes built, converted or brought back into use are eligible. Payment is triggered by the home being registered as eligible for council tax and funds raised can be spent on any project, they are not ring fenced. Nationally £200 million was set aside for 2011/2012 then £250 million for next 3 years. Ipswich Borough Council received £520000 in the first year.

Business Rate Retention

15. Under this new scheme, local authorities will be able to keep a proportion of the business rate growth in their area resulting from new and expanding businesses – at present all the income goes to central government. In addition, there will be a ‘tariff’ and ‘top up’ system to even out some imbalances nationally. For every 1% increase in money collected, the fund will go up by 1%. The income will not be ring fenced.
16. Another potential funding mechanism related to business rates income is Tax Increment Financing (TIF). This has been made possible through the provisions of the Local Government Finance Act 2012. It enables Councils to borrow money against predicted future business rate growth in order to fund infrastructure projects or other capital projects to support growth. It has been successfully used in USA.

Sustainable Transport Fund

17. £560million has been set aside by the Government from 2010 for 4 years. The third and final instalment of funding of £266m was announced in June 2012. The fund allows local authorities to apply for funds for local sustainable travel measures. They are more likely to be successful if they can show value for money, deliverability and affordability and can only be successful with one bid.

Regional Growth Fund

18. The Regional Growth Fund is a £2.4bn fund for England operating from 2011 to 2015. It supports projects needed to support growth, particularly in areas that are dependent on public sector jobs. It is administered by the New Anglia Local Enterprise Partnership (LEP). Bids can be made by private bodies and public private partnerships. Bids likely to be awarded funds will be those that trigger private sector investment, which leads to private growth and jobs.
19. Total Bids has far exceeded monies available. It does not appear that further funding will be made available. In Ipswich, agreement in principle has been reached for Regional Growth Fund assistance for the tidal flood barrier project.

Planning Agreements (Section 106 Planning Obligations)

20. Planning agreements are made under S.106 of the Town and Country Planning Act 1990. They are an agreement between the Local Authority and the developer for the developer to provide funding for specific local infrastructure projects. Individual agreements specify timings of payment and amount. The funding is intended to mitigate the impact of new development. However, limited funds will be available post 2014 as Community Infrastructure Levy (CIL) is expected to be in place as of April 2014.

Community Infrastructure Levy (CIL)

21. Funding through legal agreements secured by planning permissions will likely be limited from April 2014 when the Council is expected to adopt its Community Infrastructure Levy (CIL) charges. These charges will be imposed on future developments based on the net increase in floorspace, with different rates potentially applying to different types of development and geographic areas. The money generated through this will fund infrastructure such as open spaces, although as opposed to the present situation the majority of any individual contributions paid will not be tied to the area in which the development is sited whilst a greater number of developments will be liable to this charge. The trigger for CIL payment will be when the development commences.
22. There will be no CIL charge for charities, affordable housing or exceptional circumstances where charge makes the development unviable.
23. An independent examination is needed to set the CIL schedule of charging rates.

Landfill Communities Fund

24. This is a tax introduced in 1996 to reduce the amount of land fill waste. The Fund supports community, built heritage and environmental projects in the vicinity of landfill sites or landfill operator depots. Landfill operators can pass on up to 6.8% of their tax liability to approved environmental operators who can then claim a tax credit. Other

potential LCF funders are BiffAward and SITA. 10% of the value of the grant is required as match funding from a third party. This fund cannot be used to meet planning conditions, but can be used to unlock other funding streams ie Heritage Lottery Fund.

Green Investment Bank

25. This is intended to support low-carbon and renewable energy infrastructure that represents an important source of jobs, investment and enterprise as well as assisting the UK to meet its national carbon reduction targets. £3 billion is available nationally. The aim is to lever private sector capital to fund eligible projects. The Bank will not be permitted to raise equity, borrow money, issue bonds or sell consumers savings products until at least 2015. The Bank was launched by the Government in November 2012. Likely projects include offshore wind, new nuclear plant, industrial energy efficiency, industrial renewable heat plant, commercial and industrial waste plant and waste-to-energy plant.

The Big Society Bank (Big Society Capital)

26. This has been created to act as an additional source of social finance to encourage growth within the wider social finance market. The Government is using capital from funds lying within dormant bank accounts plus an additional £200m supplied by high street banks. The bank was launched in July 2011 with a fund of around £100m plus to be loaned out to third sector organisations from the voluntary and community sector. They pay back the funds from income generated. The Co-operative bank will act as the wholesale bank, diverting funds to the Big Lottery Fund for distribution to borrowers. Suffolk County Council is applying for funding for use across Suffolk.

ERDF Competitiveness Fund

27. The European Regional Development Fund was started in 1975 to reduce economic disparities between European regions. The current allocation for England runs to 2013. Funding can be applied for by local authorities, private organisations and voluntary bodies and its purpose is to support economic growth. Funding is ring fenced and requires match funding (usually 50%). The Government announced in April 2012 that the European Commission has published proposals for the 2014-20 funding round. In early 2013 the Government will consult on how the funds will be deployed. It would then need to be agreed by the European Commission.

Heritage Lottery Fund

28. The Heritage Lottery Fund supports heritage projects which deliver a benefit to the public. There are a number of programmes under the Fund, including the 'Parks for People' programme. This offers the opportunity of funding of between £100,000 and £5m for projects related to historic parks and cemeteries in England. The Fund is jointly funded by the Big Lottery Fund. There is a bidding process for funding and decisions on bids are made twice a year, in June and December.

January 2013
Holywells Park, Ipswich

Appendix 8 Parks and Open Spaces Operational Plan 2012/13

DRAFT

PARKS & OPEN SPACES

OPERATIONAL PLAN

2012 / 13

**Eddie Peters
Operations
Manager
June 2012**

CONTENTS

- 1 Parks & Open Spaces Service Aims 2012/13**
- 2 Parks & Open Spaces Achievements 2011/12**
- 3 Action Plans**
- 4 Health and Safety**
- 5 Environmental Targets**
- 6 Training Plan**

1 Parks & Open Spaces Service Aims 2012/13

Ongoing Aims

The Council's underlying principle for the citizens of Ipswich are set out in its Corporate Plan 'Building a better Ipswich'. Parks & Open Spaces contribute directly to these principles in the following way:

To deliver the current Work Plan in accordance with the adopted 'Vision' for Parks & Open Spaces.

Aim 1

To focus activity around the Borough's three flagship parks - Christchurch, Holywells and Chantry making them hubs for the support of the rest of our parks, open spaces and allotments.

1a Retain Green Flag Accreditation for Christchurch Park and achieve Green Flag status for Holywells Park in 2011 and Chantry Park in 2013

1b Review the location of parks management and support staff to best meet the needs of all parks and open spaces.

1c Review, re-launch and raise the profile of the Park Patrol Service based in these areas and improve enforcement capacity.

1d Work closely with local police and the 'Safer Neighbourhood Teams' in order to ensure the Council's Parks and Open Spaces are as safe as possible

1e Accessibility for all and a review of park by-laws.

Aim 2

Enable communities to become involved in the management and maintenance of their local park and / or open space by aiding the establishment of park friends groups, management boards and self-run clubs

2a Support existing and encourage the development of new constituted Friends Groups, establishing a Friends of Chantry Park in 2011

2b&c deleted from vision

2d Encourage self-management of bowling greens by bowls clubs, licence agreement entered into with Holywells Bowls Club in 2010

2e Explore management options for the improvement of allotment gardens.

Aim 3

Encourage input and assistance from individuals, the voluntary sector, community payback, business sector and other groups through improved partnership working.

3a Increase volunteer involvement (time / cash equivalent)

3b Number of successful projects completed by community payback increased year on year

3c Seek additional external financial support, including from the private sector, for park and open space projects

Aim 4

Work in partnership with colleagues in neighbouring councils and other key stakeholders to ensure that the natural environment and sensitive wildlife habitats are protected from damage, and safeguarded for future generations.

4a Support wildlife and conservation initiatives and protect, care for and plant more trees.

4b Subject to revenues, explore possibility of a new visitor centre at Orwell Country Park in the longer term.

4c Develop collaborative working to ensure due regard for parks and open space is given in assessing planning applications.

Aim 5

Promote the town's parks and open space in order to raise awareness of their leisure and amenity value, heritage interest and high quality landscapes, encouraging use by existing communities and attracting new visitors helping to boost the local economy.

5a Update and develop a Parks and Open Spaces Policy statement and delivery Strategy by 2012.

5b Promote the service via Council website.

5c Provide legacy to 2012 Olympics, e.g. creation of Nordic health walks, trim trails, tree feature celebrating five rings.

5d Promote the importance of parks & open spaces to health & as a resource for exercise & sport.

5e Promote and raise awareness of the benefits of the Council's play facilities.

Aim 6

Organise and facilitate a range of events and activities in our parks and open spaces, improving social inclusion and providing increased opportunity for people to participate in an active lifestyle, addressing health inequalities especially among specific target groups, e.g. children in poverty and the lack of physical activity by 65+ age range.

6a Support Ipswich in Bloom and annual entry into Anglia In Bloom.

6b Increase visitor numbers to flagship parks.

6c Increase events in parks and open space.

Aim 7

Provide cost effective services and invest in staff development and health and safety.

7a Agree an improvement plan to deliver savings over the next three years.

7b Assess annual training needs and implement action plan.

7c Proactively seek to reduce the level work related accidents to achieve above average industry performance measure.

7d Ensure an apprentice in each of Flagship parks Ensure an apprentice in each of the Flagship parks.

2 Parks & Open Spaces Achievements 2011/12

- Review of Park Patrol and re-launch of a more focused service better able to deal with anti-social behaviour, and addressing community concerns.
- Efficiency gains and savings in revenue budget in excess of £1.5 million over three years.
- Supporting Murray Park Friends Group to help realise community aims and aspirations for improving local park.
- Work with social enterprise to make use of Chantry Park Nursery complex and help people with a range of disabilities back into main stream employment. Project entering new stage involving Suffolk New College.
- Winter Landscape Schemes: Deliver approved programme in accordance with 'client' requirements.
- Bramford Lane Play Area Improvement Scheme: Implementation of scheme to improve local play area.
- Long Grass Policy: Introduction of long grass maintenance regime aimed at improving biodiversity and wildlife habitat.
- Improved performance management: Introduction of Communication Plan, Service Improvement Plan, and Performance Improvement Plan.

Action Planning

Service Aim

Aim 2: Enable communities to become involved in the management and maintenance of their local park and / or open space by aiding the establishment of park friends groups, management boards and self-run clubs

Manager

Eddie Peters	Head of Service	Billy Brennan	Director	Jonathan Owen	Portfolio Holder	Cllr Rudkin
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Risk	Consequence	Controls	Residual Risk		Actions	Action Dates	Performance Management
			Likelihood	Impact			
Insufficient staff resource / time allocated to partnership.	Expectation raised and not fulfilled	Identify work as a priority and ensure sufficient involvement with project.	D	3	Attend stakeholder meetings and ensure involvement.	Meeting dates entered in diary.	Monitor via PIP

Action Planning

Service Aim

Aim 3: Encourage input and assistance from individuals, the voluntary sector, community payback, business sector and other groups through improved partnership working.

Manager

Eddie Peters	Head of Service	Billy Brennan	Director	Jonathan Owen	Portfolio Holder	Cllr Rudkin
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Risk	Consequence	Controls	Residual Risk		Actions	Action Dates	Performance Management
			Likelihood	Impact			
Failure to gain sufficient input from individuals etc.	Inability to deliver projects that rely upon volunteer input.	Promote opportunities to volunteers.	C	3	Advertise opportunities via IBC Press Office / web site	Regular promotional activities	Monitor via PIP

Action Planning

Service Aim

Aim 4: Work in partnership with colleagues in neighbouring councils and other key stakeholders to ensure that the natural environment and sensitive wildlife habitats are protected from damage, and safeguarded for future generations.

Manager

Eddie Peters	Head of Service	Billy Brennan	Director	Jonathan Owen	Portfolio Holder	Cllr Rudkin
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Risk	Consequence	Controls	Residual Risk		Actions	Action Dates	Performance Management
			Likelihood	Impact			
Neighbouring authorities have different priorities / political or professional differences.	Inability to agree on specific objectives.	Aim to foster / cement working relationships.	D	3	Increased networking / meeting of minds.	Agree dates for meetings	Monitor via PIP
Key stakeholders, e.g. Friends Group fail to approve IBC led initiative	May affect relationships and potential to secure external funding to achieve objectives.	Consult and encourage involvement at all stages.	D	2	Invite stakeholders to meetings and discuss objectives.	Agree regular meetings with stakeholder groups	Monitor via PIP

Action Planning

Service Aim

Aim 5: Promote the town's parks and open space in order to raise awareness of their leisure and amenity value, heritage interest and high quality landscapes, encouraging use by existing communities and attracting new visitors helping to boost the local economy.

Manager

Eddie Peters	Head of Service	Billy Brennan	Director	Jonathan Owen	Portfolio Holder	CIlr Rudkin
--------------	------------------------	---------------	-----------------	---------------	-------------------------	-------------

Risk	Consequence	Controls	Residual Risk		Actions	Action Dates	Performance Management
			Likelihood	Impact			
Promotion results in over use of facilities beyond accepted carrying capacity	Damage to infrastructure resulting in additional / un expected costs.	Ensure events are spread across all parks and open spaces and infrastructure is able to cope with use.	E	3	Work closely with events team and IBC Promotional teams.	Attend section meetings and discuss issues / safeguarding options	Monitor via PIP
Conflict of interest between visitors and residents adjacent to parks.	Complaints received from residents over noise, vehicle movements, parking etc.	Regulate activities and insist on effective marshalling by event organiser.	D	4	Communicate requirements effectively via events brochure etc keep residents informed of planned activities.	Regular meetings	Monitor via PIP

Action Planning

Service Aim

Aim 6: Organise and facilitate a range of events and activities in our parks and open spaces, improving social inclusion and providing increased opportunity for people to participate in an active lifestyle, addressing health inequalities especially among specific target groups, e.g. children in poverty and the lack of physical activity by 65+ age range.

Manager

Eddie Peters	Head of Service	Billy Brennan	Director	Jonathan Owen	Portfolio Holder	Cllr Rudkin
--------------	------------------------	---------------	-----------------	---------------	-------------------------	-------------

Risk	Consequence	Controls	Residual Risk		Actions	Action Dates	Performance Management
			Likelihood	Impact			
Promotion results in over use of facilities beyond accepted carrying capacity	Damage to infrastructure resulting in additional / un expected costs.	Ensure events are spread across all parks and open spaces and infrastructure is able to cope with use.	E	3	Work closely with events team and IBC Promotional teams.	Attend section meetings and discuss issues / safeguarding options	Monitor via PIP
Increase awareness leads to over expectation on part of visitor.	Users feel let down by facilities provided leading to increase number of complaints / increased pressure on existing budgets / resources.	Ensure level of provision is widely publicised to avoid possible disappointment.	E	3	Communicate effectively via various media channels.	Agree communication / action plan	Monitor via satisfaction levels, complaints / complements via PIP

Action Planning

Service Aim		Aim 7: Provide cost effective services and invest in staff development and health and safety.						
Manager		Eddie Peters	Head of Service	Billy Brennan	Director	Jonathan Owen	Portfolio Holder	CIlr Rudkin
Risk	Consequence	Controls	Residual Risk		Actions	Action Dates	Performance Management	
			Likelihood	Impact				
Budget restrictions prevent required level of staff investment.	Staff fail to receive required training and service standards adversely affected.	Prioritise training requirements and agree delivery programme with HoS	B	2	Complete training programme based on annual staff appraisals	Comply with corporate timetable to completion of appraisals	Monitor via PIP	
Pressure to achieve year on year savings curtails staff training and impacts adversely on H&S	Staff, members of public put at risk from injury.	Produce training programme and seek approval for budget requirements	C	2	Submit budget requirements and seek approval.	Budget review date	Monitor via PIP	

4 Health and Safety

4.1 Accident Statistics

	2006/7	2008/9	2009/10	2011/12	2012/13
Reportable	1	6	6	0	
Non Reportable	13	7	7	4	11
Near Misses	0	1	1	0	

4.2 Health and Safety Action Plan 2011/12

See separate plan (Gipping House)

This document scopes the Annual Health and Safety Plan for the period of April 2012 to March 2013.

This plan will cover the following operational service groups:

- Highways Services
- Transport and Parking Operations
- Waste & Environmental Services
- Parks and Open Spaces

5. Environmental Targets

Parks and Open Spaces environmental targets have been formulated to meet the objectives of the Council's Environmental Strategy and the Council's Impact Carbon Management Plan.

Environmental Strategy Objective	Parks and Open Spaces Target
Making Ipswich a low carbon community	Use sustainable products from renewable sources where possible
Review effectiveness of fleet vehicles and use	Identify and source fuel-efficient vehicles when renewing fleet
Reduce IBC's environmental impact (footprint) through good housekeeping	Reduce use, where possible of seasonal bedding, which is labour intensive and irrigation dependent by making greater use of perennial / drought resistant plants. Seasonal bedding to be concentrated in areas where their use will create maximum visual impact
Encourage use of local products and suppliers for IBC	Source produces from local suppliers where possible and cost effective

Impact Carbon Management Plan Objective	Parks and Open Target
Reduce CO2 emissions	<p>Improve recycling and composting (NI192)</p> <p>Support SWP Waste Minimisation Plan</p>
Improve staff awareness, communications and training relating to carbon management	<p>Provide representative to act as Transformer Champion and ensure all teams are aware of Impact Programme</p> <p>Provide representative on Impact Team</p> <p>Introduce carbon management awareness into induction process</p> <p>Remind all employees to switch off IT equipment</p>
To set individual operational areas carbon reduction targets based on the CO2 emissions directly under their control	<p>Incorporate set targets into Operational Plan and formulate action required e.g. migration to low emission vehicles</p>
Vehicle Fleet Manager to procure all vehicles for IBC	<p>Ensure new vehicles all achieve 130gCO₂ per km, where this information is available</p>
LGV Driver Training programme	<p>All HGV drivers have to have driver training, which includes how to drive economically. This element of the driver training should be extended to cover all fleet drivers. These are estimated to produce 5% savings in fuel use across a fleet</p>
Long term aims:	
Establish Green Routes / Corridors across Ipswich	<p>Endorse principles behind the Haven Gateway Green Infrastructure Strategy</p>
Create apiaries	<p>Conservation efforts should focus on rare bumblebee for example the threatened <i>Bombus humilis</i> and the native honeybee.</p> <p>Consideration to be given to creation of more suitable flora habitat, e.g. new meadow creation and species specific initiatives, e.g. Red Clover promoted in grassland – achievable via relaxed mowing regimes.</p> <p><i>Community involvement through local bee keeping groups.</i></p> <p><i>Consider using local/natural products/traditional and 'appropriate</i></p>

	<p><i>technology' for apiaries rather than shop bought ones.</i></p> <p>Allotment gardens Chantry Parks Christchurch Park Holywell Park Landseer Park <i>Orwell Country Park</i> <i>Opportunities explored via Greenways Project</i></p>
Commercial Waste Exchange	Convert recycle wood into wood chips for biomass boilers
Planting Programmes	Adhere to the IBC Tree Management Policy for tree planting particularly the 'Right place- right tree' approach
Increase Provision of Allotments	Level of provision to accord with IBC Allotment Strategy.
Establish Community Orchards	<p>Sites</p> <p>1 Christchurch Park 1 Chantry Park 1 Brunswick Rec</p>
Meadow Planting	Explore opportunities to extend and increase meadow planting and creation via modification of existing grassland management regimes across parks and other green space areas. Long grass policy adopted and scheme being implemented.
Establish 6 wildlife sites & trail	<p>Declare new LNR and CWS sites within the borough. For example existing parks and open spaces such as Holywells Park, Landseer Park, Pipers Vale Meadow and new sites as and when they become available.</p> <p>Attain a Biodiversity Benchmark Award for Orwell Country Park (become first local authority in England to do so)</p> <p>Explore options to establish wildlife sites</p>

	<p>within allotments</p> <p>Establish wildlife areas within “poor biodiversity” sites such as recreation grounds.</p> <p>Establish wildlife sites in new developments where possible, e.g. North Ipswich (Country Park?).</p> <p>Establish wildlife sites in agricultural land (including IBC agricultural land), e.g. Thorington Hall Farm, Corporation Farm and Pond Hall Farm.</p>
<p>Expansion of street trees & planning for replacement of ageing trees</p>	<p>Highways-Guided by COST Action ER ‘urban forest and trees’ Increase the ratio of street trees per 1,000 inhabitants to the highest level of <u>80 trees per 1,000 inhabitants</u>. Pro-actively plant trees to reflect 2021 predicted growth to 150,000 inhabitants (one Ipswich community strategy: everyone matters 2008/2010)</p>

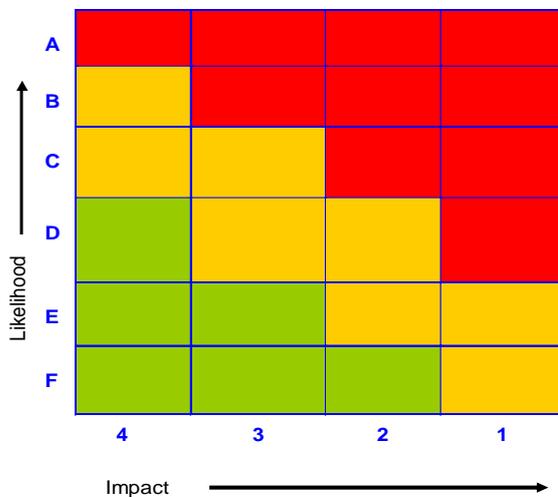
6 Training Plan 2011/12

All training requirements will support Underlying Principles as outlined in Corporate Plan: NB. ***Training requirements for service is currently being assessed via staff appraisal and development process. This is due to be finalised by August 2012.***

Training Title	No Employees requiring training	cost (ex. Vat)	Total	Comments/completion
Abrasive Wheel training		£ 90.00		
Aggresso		£ -		
Allotment managment		£ 150.00		
Appraisal course		£ -		
Basic First Aid		£ 260.00		
Brush cutter course		£ 300.00		
Brush cutter course maintenance		£ 30.00		
Budget management		£ -		
Chainsaw		£ 350.00		
Chainsaw refresher		£ 350.00		
Completion of bat licence training		£ 2,400.00		
Compulsory IBC training		£ -		
Creative thinking		£ -		
Diesel engines update		£ 400.00		
Eco driving		£ 15.00		
Events training		£ 600.00		
Excel Refresher		£ -		
Excel Training		£ -		
First Aid		£ 260.00		
First aid refresher course		£ 188.00		
GIS mapping		£ -		
H&S in the Workplace		£ -		
IBC GIS mapping		£ -		
IBC Planning framework		£ -		
Ladder training		£ 41.46		
Lever 3 Tree Inspector		£ 492.00		
Local Gvt Tree officer – AA LGTO		£ 492.00		
Landscape ins. CPD		£ 500.00		
management training		£ 4,400.00		
Managing absence		£ -		
Managing employees		£ -		
Managing Safely		£ 388.00		
Manual handling		£ 100.00		
Mini Digger training		£ 750.00		
NPTC Unit CS41 Dismantling ops		£ 330.00		
NPTC Unit CS48		£ 120.00		
NPTC Unit CS48 - assessment		£ 124.30		
NPTC Unit CS50 – dangerous trees		£ 350.00		
NPTC Unit CS50 – dangerous trees - assessment		£ 193.30		
NRSW Refresher course		£ 230.00		
PA1 & PA6 Training/exam		£ 430.00		
Planning Framework		£ -		

Planning/time efficiency	£	-
Plant Operator cert for 5000 kilo articulated dumper	£	300.00
Preparing for committee	£	-
Presentation skills	£	-
Project management	£	-
Refresher course with ROSPA	£	220.00
Risk Assessment course	£	100.00
ROSPA Play area	£	220.00
RoSPA play installation course	£	220.00
Safeguarding children	£	-
Servitor training	£	372.50
Small mammal ecology & Survey techniques	£	400.00
Stem injection of invasive weed species	£	90.00
Street works	£	230.00
Supervisors development course	£	-
Team leader training	£	-
Tractor/loader	£	400.00
Trailer test	£	550.00
Training on Excel, Outlook and GIS	£	-
Trees in the Planning framework	£	-
Wildflower ID	£	400.00
Outlook training	£	60.00

IBC Risk Management Matrix



- Likelihood:**
- A Very high
 - B High
 - C Significant
 - D Low
 - E Very low
 - F Almost impossible

- Impact:**
- 1 Catastrophic
 - 2 Critical
 - 3 Marginal
 - 4 Negligible

7. Project Priorities for 2012 / 13 (Endorsed by Corporate Management Team [CMT] June 2012)

	High Priority 2012/13	Start	Dead-line
1	Holywells HLF Project (Numerous Workstreams)	Jun-10	Feb-13
2	P&OS & Biodiversity Policy / Strategy		Feb-13
3	Front-line staff Restructure		TBC
4	Chantry hub relocation		Oct-12
5	Servitor Development		Jul-12
6	Meet savings targets for Housing & Bereavement Services via recharge	Dec-10	Apr-13
7	Play Strategy review		May-12
8	Allotment Strategy review		Jan-13
9	21 st Century transport		Mar-13
10	Murry road Rec improvements		Jul-12
11	Communication Plan		Mar-13
12	Staff competency framework and apprentice training programme	Apr-11	Aug-12
13	Self-management of bowling greens by bowls clubs	Apr-10	Mar-13
14	Chantry Park Green Flag Submission / development of M&M Plan		Jan-14
15	Chantry Nursery - Suffolk College	Sep-11	Sep-12
16	Patrol - Litter, Dogs, Flytipping Enforcement	Mar-12	
17	Zero based budgeting	Dec-11	Sep-12
18	Highways Agency / SLA	Apr-12	Mar-13
19	River Corridor MMP		

January 2013
Holywells Park, Ipswich

Appendix 9 Risk Assessment Report, Pond 2, Holywells Park, Ipswich

Management Area Parks & Open Spaces

Task or Activity Landscape feature of open water

Description of the Environment

Pond number 2 is one of twelve water bodies located in the centre of Holywells Park in an environment of approximately 70 acres of public urban parkland. The park is accessible 24 hours per day; however the main entrances are locked from dusk to dawn.

The park is frequented by walkers, cyclists, families and unaccompanied children. In summer months up to a thousand people may use the facility.

Description of the Pond

The pond has a surface area of 372m², which is currently fenced by a 1.2 metre high wooden post and rail fence with stock netting covering the bottom half. A balustrade wall adds further protection on the West side, which is flanked by the main tarmac footpath, which runs south to North through the park. One field gate used for maintenance access is positioned on the South side and a smaller pedestrian gate is located on the North side, these are both locked with padlock and chain. A natural earth/grass path runs to the North and East sides. These paths are short mown once per month.



General view of pond 2



West side balustrade wall



North side bank

Methodology

Matt Berry (Ranger Team Leader) and Nick Wilcox (Area Manager Grounds Maintenance) undertook this risk assessment on The 12th January 2012.

The site visit began at the North West corner and followed an anti-clockwise route around the pond circumference. The site visit included hazard identification, existing risk control measures, and further risk control measures required.

This risk assessment is to address risk control measures for public safety and work undertaken by Ipswich Borough Council employees on or near ponds.

Accident History

There have been no incidents or injuries at pond number 2 in the last 10 years.

Hazard Identification

Nature of the Water

The water is slow moving and generally clean. The depth and pond bottom base is currently unknown, but a full survey is planned by the end of 2009. There is likely to be higher silt levels at the western end, although significant levels of silt throughout the whole pond are visible from the waters edge. Surface vegetation covers approximately three quarters of the pond.

Waters Edge

The North and South side edges have a natural profile of no more than a 300mm drop to water. The West side has a 1.5 metre sheer drop from the path that is protected by balustrade wall and post and rail fence, preventing pedestrian access. A gentle slope of approx 1.2 metres leads to the waters edge on the East side. All edges were defined and clearly visible at time of inspection but in summer months most edges will be hidden by vegetation.



South side bank

Accessibility to the Water

All access to the water is protected by 1.2 metre high post and rail fence that prevents pedestrian access, with 600mm stock netting preventing access by dogs and small children. At the time of inspection several areas of fencing required minor repairs. The field gate on the South side and pedestrian gate on the North side are permanently locked by a chain and padlock and are only opened for maintenance purposes.

Hinterland Activities

There are pedestrian footpaths on the West and North sides.

A designated cycle path runs north to south within the centre of the park.

Walkers

Dog walkers

Recreational activities



North side edge

Risk Control Measures

Signage

All entrance will have informative signage and will include as a minimum:

- A map showing areas of open water
- Danger Deep Water and No Swimming Signs
- Location of Staff Office
- Ipswich Borough Council 24 hour emergency centre number

Nag signs

Miniature nag signs (205 mm x 150 mm) warning of danger of deep water and no swimming. Signs are to be located as per signage location map *Ref. M1*.

Signs will be to the standard of the National Water Safety Sign. BS 54991 2002

Signs will be checked for deterioration or vandalism on a monthly basis.

Footpaths

A designated footpath surrounds the pond on the West, North and East sides. The tarmac surfaced main footpath on the West side is protected by the balustrade wall and post and rail fence. The North and East side footpaths are of a natural type base, and are no closer than 3 metres to the waters edge, and are protected by post and rail fencing. There is no designated footpath on the South side and is inaccessible for most of the year due to it being very wet.

Fencing

Nine bays of fencing are to be repaired as identified in Hazard identification. The fence and stock netting has a monthly-recorded visual inspection for defects.

Balustrade

The balustrade protecting the vertical drop on the east side of the pond has a monthly-recorded visual inspection and a formal structural annual inspection.

Sight Lines

Generally there are clear sight lines to the pond.

Maintenance of Pond Edge

The North and South side edges will have all vegetation cut and cleared twice per year (Spring/Autumn) for nature conservation purposes. This will restrict growth to less than 1metre in height. Coppicing and pollarding works to willow trees will take place annually or when necessary, in winter. Treatment to a large infestation of Japanese Knotweed on both North and South sides have so far proved successful and will be monitored for signs of its return. Any further treatment will take place as necessary.

Underwater hazards

There are currently no obvious underwater hazards. Monthly, recorded visual checks from the banks will be undertaken for this purpose.

Accidental or Intentional Entry into Pond

In the event of an accidental entry from the bank in to the pond the depth of the water (600mm approx) should allow a person to stand with their head above water at a distance of two body lengths from the bank, although unknown levels of silt may inhibit this.

Risk of Flooding

There is potential risk of flooding however this can be controlled by water level management incorporating piped and open drainage systems. The outlet on the West side will be cleared or rodded once per week to remove any build up of detritus.

Date Completed: January 2012

Review Date: January 2013

Risk Assessment

Open Water – Holywells Park, Pond 2

Number:	OW2	Status:	Live	Issue Date:	Jan 2012	Review: Due	Jan 2013
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Document Owner:	Matt Berry / Nick Wilcox	Post:	Team Leader / Area Manager
Document Authors:		Post:	
Primary Contact:		Post:	

Approved by:	Eddie Peters	Post:	Manager – Parks & Open Spaces
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Scope	To address risk control measures for public safety and work undertaken by IBC employees on or near open water
Related Documents:	<p>Other relevant risk assessments: Working in or near water Lone working Manual handling Grass cutting Litter picking</p> <p>Risk Assessment Report for pond 2 (RAR2) Signage location map (M1)</p> <p>Applicable Safe Systems of Work SSW for boat work SSW Brushcutters SSW Chainsaws & tree work</p> <p>Management Procedures Applicable</p> <p>Outstanding actions required as a result of this assessment Pond survey to ascertain silt levels</p>

RISK ASSESSMENT To address risk control measures for public safety and work undertaken by IBC employees on or near open water.

DATE Jan 2012

RISK ASSESSORS NAME Matt Berry, Nick Wilcox

Task Element	Hazard identified and potential to cause harm	Persons at risk	Initial risk rating (without controls in place)			Control measures to reduce hazards	Residual risk rating (with control measures in place)		
			Severity	LIKELIHOOD	Risk LEVEL		SEVERITY	Likelihood	RISK LEVEL
All activities in and around open water – pond 2	Silt at bottom of pond with the potential for someone to become trapped or drown	Public and employees	High	Possible	Medium	Fencing with stock netting to restrict access to pond Signage at strategic points to inform about potential dangers Designated and maintained footpaths at safe distance from waters edge Maintain sufficient sight lines to pond Monthly-recorded inspections of fencing, steps, bridges, balustrade wall and footpaths surrounding pond. Balustrade wall has a formal annual inspection carried out B&D's	High	Unlikely	Med

	Accidental or intentional entry into pond with the potential to drown	Public and employees	High	Possible	Medium	<p>Fencing with stock netting to restrict access to pond</p> <p>Signage at strategic points to inform about potential dangers</p> <p>Designated and maintained footpaths at safe distance from waters edge</p> <p>Maintain sufficient sight lines to pond</p> <p>Monthly-recorded inspections of fencing, gates, steps, bridges and footpaths surrounding pond</p> <p>Monthly-recorded inspections for underwater hazards</p> <p>Correct PPE if using a boat</p> <p>Refer to relevant risk assessments and safe systems of work (see related documents)</p>	High	Unlikely	Med
	Flooding with the potential to cause harm via slips, trips and falls	Public and employees	Moderate	Possible	Medium	<p>Designated and maintained footpaths at safe distance from waters edge</p> <p>Maintain sufficient sight lines to pond</p>	Moderate	Unlikely	Low

						<p>Monthly recorded inspections & weekly checks/maintenance of inlets and outlets</p> <p>Refer to relevant risk assessments and safe systems of work (see related documents)</p>			
	<p>Iced over pond surface, or localised flooded and frozen areas with potential for someone to fall over or through ice and suffer injury, cold stress or drown</p>	<p>Public and employees</p>	<p>High</p>	<p>Possible</p>	<p>Med</p>	<p>Fencing with stock netting to restrict access to pond</p> <p>Signage at strategic points to inform about potential dangers</p> <p>Designated and maintained footpaths at safe distance from waters edge</p> <p>Maintain sufficient sight lines to pond</p> <p>Refer to relevant risk assessments and safe systems of work (see related documents)</p>	<p>High</p>	<p>Unlikely</p>	<p>Med</p>
	<p>Underwater hazards with the potential to cause injury</p>	<p>Public and employees</p>	<p>High</p>	<p>Possible</p>	<p>Med</p>	<p>Fencing with stock netting to restrict access to pond</p> <p>Signage at strategic points to inform about potential dangers</p>	<p>High</p>	<p>Unlikely</p>	<p>Med</p>

						<p>Designated and maintained footpaths at safe distance from waters edge</p> <p>Maintain sufficient sight lines to pond</p> <p>Monthly-recorded inspections for underwater hazards</p> <p>Refer to relevant risk assessments and safe systems of work (see related documents)</p>			
	Working in or near open water with the potential for slips, trips and falls, and drowning.	Employees	High	Possible	Med	<p>Monthly-recorded inspections for underwater hazards</p> <p>Correct PPE for the tasks involved.</p> <p>Employee training and toolbox talks</p> <p>Corporate pest control contract – monthly visits</p> <p>Refer to relevant risk assessments and safe systems of work (see related documents)</p>	High	Unlikely	Med

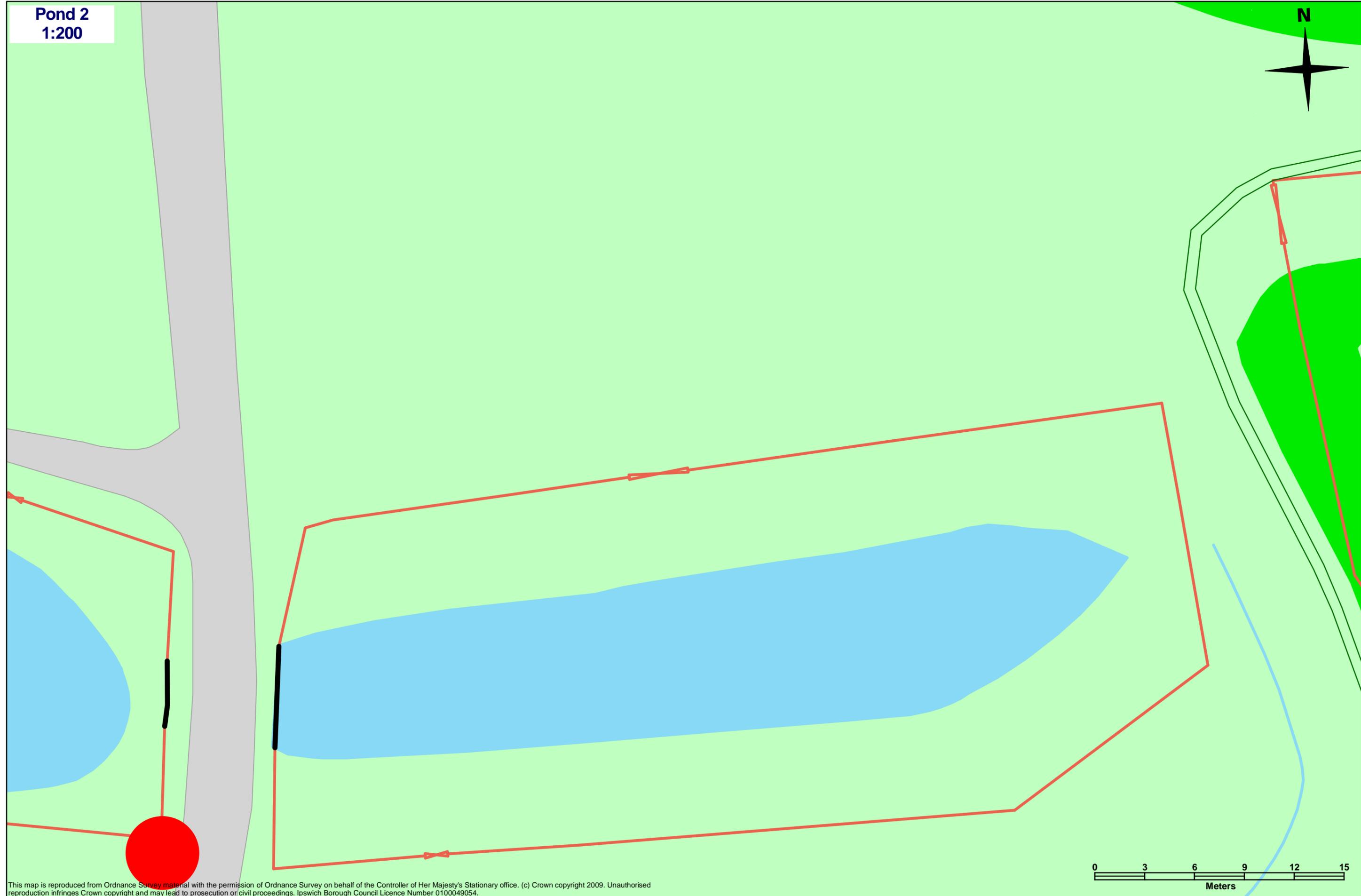
	Water borne diseases with the potential to cause harm	Public and employees	High	Possible	Med	<p>Correct PPE for the tasks involved.</p> <p>Employee training and toolbox talks</p> <p>Corporate pest control contract – monthly visits</p> <p>Refer to relevant risk assessments and safe systems of work (see related documents)</p>	High	Unlikely	Med
	Attempt by the public or employees to rescue animal or person with the potential for injury, disease or drowning	Public and employees	High	Possible	Med	<p>Fencing with stock netting to restrict access to pond</p> <p>Signage at strategic points to inform about potential dangers</p> <p>Designated and maintained footpaths at safe distance from waters edge</p> <p>Maintain sufficient sight lines to pond</p> <p>Monthly-recorded inspections for underwater hazards</p> <p>Correct PPE for the tasks involved.</p>	High	Unlikely	Med

						<p>Employee training and toolbox talks</p> <p>Refer to relevant risk assessments and safe systems of work (see related documents)</p>			
--	--	--	--	--	--	---------------------------------------------------------------------------------------------------------------------------------------	--	--	--

Risk Matrix for calculating risk ratings

		HAZARD SEVERITY				
		Negligible Very minor injury or absence from work	Slight Minor injury requiring first aid treatment	Moderate Injury leading to a lost time accident	High Involving serious injury or a single fatality	Very High Multiple deaths or catastrophic failure
Likelihood of Occurrence	1.1.1 Very Unlikely An unlikely combination of factors would be required for an incident to happen	LOW	LOW	LOW	LOW	LOW
	1.1.2 Unlikely A rare combination of factors would be required for an incident to occur	LOW	LOW	LOW	MEDIUM	MEDIUM
	1.1.3 Possible Could happen if all the factors are present, but still not likely	LOW	LOW	MEDIUM	MEDIUM	HIGH
	1.1.4 Likely Not certain but an additional factor may resulting an incident	LOW	MEDIUM	MEDIUM	HIGH	HIGH
	1.1.5 Very Likely All the indications are there that an accident will occur	MEDIUM	MEDIUM	HIGH	HIGH	HIGH

Pond 2
1:200



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January 2013
Holywells Park, Ipswich

Appendix 10 Play Area Daily/Weekly Visual Inspections Sheet



Play Area Daily / Weekly Visual Inspections.

Location.....

Item	Checked	Comments
Signage(present and clean)		
Fences (secure)		
Gates (working)		
Pathways (undamaged)		
Site (free of litter)		
Seating (complete and secure)		
Litter bins (empty)		
Planting (damage)		
Safety surface (undamaged)		
Loose fill (levels correct)		
Swings checked (seats, chains, frame)		
Slides Checked (undamaged)		
Roundabouts (undamaged)		
Rocking items (undamaged)		
Spring items (undamaged)		
Cable runways (seat, wire, frame)		
Sand play (free of rubbish)		
Ropes (undamaged)		
M.U.G.A (free of debris & undamaged)		
Modular/Climbing frames (undamaged)		
Graffiti (free of graffiti)		

Any serious hazards should be eliminated or equipment made inoperable before site is re-opened for use.
Please ensure all serious faults are reported to Geoff Tottle/Kat Goddard for immediate action.

Name Date

Play Area Daily / Weekly Visual Inspections.

Location.....

Item	Checked	Comments
Signage(present and clean)		
Fences (secure)		
Gates (working)		
Pathways (undamaged)		
Site (free of litter)		
Seating (complete and secure)		
Litter bins (empty)		
Planting (damage)		
Safety surface (undamaged)		
Loose fill (levels correct)		
Swings checked (seats, chains, frame)		
Slides Checked (undamaged)		
Roundabouts (undamaged)		
Rocking items (undamaged)		
Spring items (undamaged)		
Cable runways (seat, wire, frame)		
Sand play (free of rubbish)		
Ropes (undamaged)		
M.U.G.A.(free of debris & undamaged)		
Modular/Climbing frames (undamaged)		
Graffiti (free of graffiti)		

Any serious hazards should be eliminated or equipment made inoperable before site is re-opened for use.
Please ensure all serious faults are reported to Geoff Tottle/Kat Goddard for immediate action.

Name Date

January 2013
Holywells Park, Ipswich

Appendix 11 Wildlife Management Plan

HOLYWELLS PARK WILDLIFE MANAGEMENT PLAN

2010 - 2015



IPSWICH
BOROUGH COUNCIL

CONTENTS

FOREWARD

1. INTRODUCTION

- 1.1 The contents of the plan
- 1.2 The format of the plan
- 1.3 Who wrote the plan
- 1.4 Strategic context

2. WILDLIFE TARGETS

- 2.1 Establish canopy wide habitat around 5 significant trees
- 2.2 Kingfishers nest in the Park
- 2.3 Record Great Crested Newt in the Park
- 2.4 Attain a Biodiversity Benchmark Award
- 2.5 Designate Park as a Local Nature Reserve
- 2.6 Install reptile & amphibian habitat piles & survey species present
- 2.7 Install 10 new Stag Beetle pyramid log piles
- 2.8 Increase number of recorded dragonfly species
- 2.9 Reach 1000 species recorded in the Park species list
- 2.10 Enhance the environmental education facilities

3. PARK COMPARTMENT MAP

4. PARK COMPARTMENT PLANS

- 4.1 Compartment A Old Orchard
- 4.2 Compartment B Kissing Gate Lane and meadow
- 4.3 Compartment C New Orchard
- 4.4 Compartment D New Meadow
- 4.5 Compartment E The Canal
- 4.6 Compartment F Bishop's Hill Woodland
- 4.7 Compartment G Nacton Road Woodland
- 4.8 Compartment H Elmhurst Drive Woodland
- 4.9 Compartment I The Dell
- 4.10 Compartment J Pond 1
- 4.11 Compartment K Wetland Garden and Stream
- 4.12 Compartment L Pond 2
- 4.13 Compartment M Play Area and Moat
- 4.14 Compartment N Pond 3
- 4.15 Compartment O Pond 4
- 4.16 Compartment P Pond 5
- 4.17 Compartment Q Pond 6
- 4.18 Compartment R Pond 7
- 4.19 Compartment S Pond 8
- 4.20 Compartment T Parkland Core

5. ACTION PLANS

6. MONITORING, EVALUATION & REVIEW

APPENDICES

1. Species list
2. County Wildlife map & citation

FOREWARD

“Holywells Park shall be an exemplar Park for Ipswich and the wider region of Suffolk, with biodiversity integrated throughout the whole management of the site.”

“The vision for Holywells Park is of a thriving, attractive and multi-functional Park, for both people and wildlife. The Park shall be a diverse mosaic of habitats, including woodland, orchard, wetlands and grassland allowing wildlife to flourish, whilst also providing visitors with the opportunity to experience, enjoy, and understand nature close at hand. A state of equilibrium between visitor and wildlife needs will be maintained through effective and sensitive zoning of different activities throughout the Park.

Ipswich Borough Councils Wildlife Ranger Service has successfully managed the Park for wildlife during the past decade, as its County Wildlife Site designation attests. During this period wildlife habitats have been increased through creation of new long grass meadows, an orchard, and the revitalizing of water bodies such as the canal and moat surrounding the play area.

The critical element in achieving the vision for Holywells Park is to maintain the balance between the needs of people and wildlife that currently exists quite harmoniously. The actions contained within the management plan aim to sustain, and where possible, improve the situation.

The future preservation and enhancement of biodiversity in Holywells Park will continue to benefit from the partnership between Ipswich Borough Council and the community. This management plan has been prepared in consultation with the Friends group and the Park Management Board.

The Park & its wildlife has benefited from a friends group that plays an active role in caring for the habitats in the Park, and recording the species found within them. This valuable contribution has also increased in recent years thanks to another local wildlife enthusiast who has set up a website dedicated to recording and promoting the Park’s abundant wildlife (www.holywellsbirds.co.uk). The species list (Appendix x stands as evidence for the recording efforts being made).

Matt Berry
Wildlife Ranger Team Leader, Culture and Leisure Services.

1. INTRODUCTION

1.1 The contents of the plan

Holywells Park contains a significant number of different habitats that all require different management approaches to be taken. Therefore the Park has been compartmentalized in 20 individual and distinct areas. This is to enable detailed information of current habitat type and condition to be included in the plan and for close analysis of management needs to be designed and incorporated.

1.2 The format of the plan

The plan loosely follows the format from CABE Space's "A guide to Producing Park and Greenspace Management Plans" and recommendations from the Green Flag handbook, mainly because it sits within an overall ten year Park Management Plan document.

In addition the plan also contains a set of wildlife targets, entitled '**Biodiversity Performance Indicators**'. These will help to inspire positive action towards enhancing the biodiversity of the Park. Furthermore, they will provide one of the methods for measuring the success of the plan.

1.3 Who wrote the plan

The plan was collated and edited by the Wildlife Ranger Team Leader. The content was supplied from the Wildlife Ranger team. The Friends of Holywells Park and members of the community also provided additional information. Special acknowledgement for species records is attributed to Rob Garrod and Bill Stone.

1.4 Strategic context

The plan works within Ipswich Borough Council's Corporate Plan, specifically under the following headings and goals:

Clean and Green Ipswich

Aim 1 Protect and enhance biodiversity, by managing, developing and interpreting our valuable natural habitats and sensitive wildlife sites.

Strengthening the community of Ipswich

Aim 1 Encourage community development and involvement, and encourage young people to take advantage of the many opportunities available to them to participate in culture, leisure and sport.

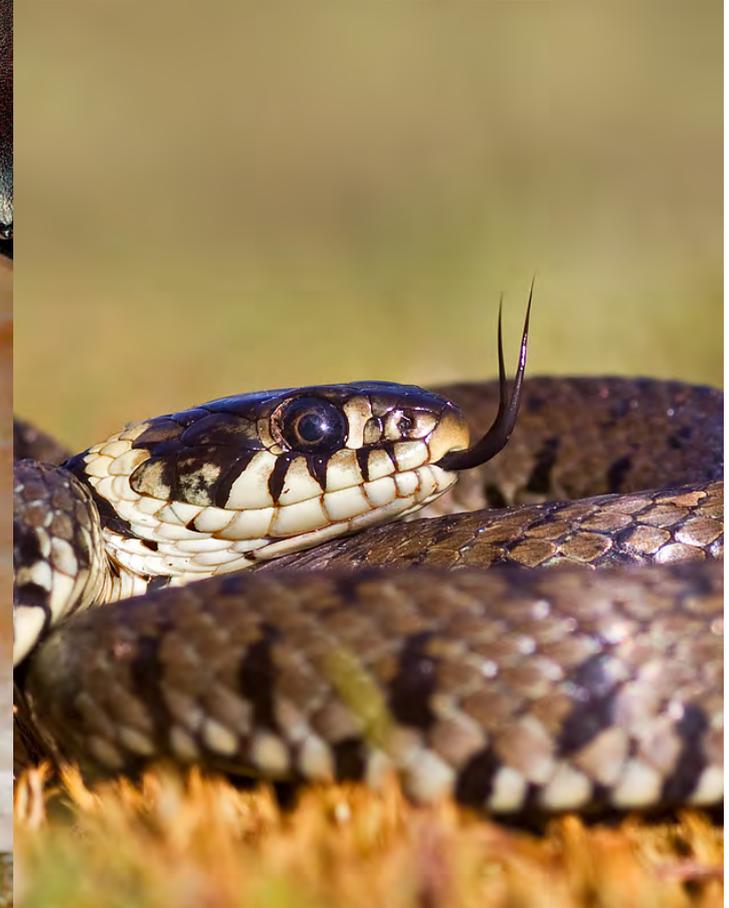
Vibrant Ipswich

Aim 6 Encourage greater uses of all sports facilities, parks and open spaces.

The plan fits within Ipswich Borough Council's Parks & Open Spaces Vision, helping meet the following aims:

- Aim 1 To focus activity around the Borough's three flagship parks - Christchurch, Holywells and Chantry
- Aim 2 Enable communities to become involved in the management and maintenance of their local Park and / or open space
- Aim 3 Encourage input and assistance from individuals, the voluntary sector, community payback, business sector and other groups through improved partnership working.
- Aim 4 Work in partnership with colleagues in neighbouring councils and other key stakeholders to ensure that the natural environment and sensitive wildlife habitats are protected from damage, and safeguarded for future generations.

2. WILDLIFE TARGETS



During the life of the management plan the following achievements will be aspired to, and used to help measure the biodiversity enhancements made in the Park as a result of the measures taken. They shall be known as 'Biodiversity Performance Indicators' (BPI).

- BPI1** Establish canopy wide long grass habitat around 5 significant trees
- BPI2** Kingfishers nest in the Park
- BPI3** Record Great Crested Newt in the Park
- BPI4** Attain a Biodiversity Benchmark Award
- BPI5** Designate Park as a Local Nature Reserve
- BPI6** Install reptile & amphibian grass and log piles and survey species present
- BPI7** Install 10 new Stag Beetle pyramid log piles
- BPI8** Increase number of recorded dragonfly species
- BPI9** Reach 1000 species recorded in the Park species list
- BPI10** Enhance the environmental education facilities

2.1 Establish canopy wide habitat around 5 significant trees

One English Oak of significant size and age (adjacent to pond five) has already had a canopy wide area of long grass established. The benefits of such a measure are:

- Increased wildlife habitat that directly supports invertebrates and fungi, and indirectly supports birds and small mammals (e.g. Bats, Voles). In addition, fallen branches and dead wood from the tree can be allowed to rest in situ, thus permitting natural processes to take place undisturbed.
- Supports the health of the tree in a number of ways - less compaction to the ground from heavy machinery, aids the positive & symbiotic relationship between trees and some species of fungi, and negates the need to remove any lower branches for machinery access.
- Cost saving – less man-hours and machinery are needed to manage the canopy wide areas and at most need only one cut (and arisings removed) per year.

At least four more trees will be identified for the establishment of canopy wide habitat. This measure supports the Council's own Tree Management Policy, 'The Council recognises the value of old single trees as a habitat, especially for birds and bats, but also invertebrates, fungi and other mammals. It will also ensure that the needs of such wildlife are taken into account in both the management of its own trees...' (TMP 2010, 15.14, p.66)

2.2 Kingfishers nesting in the Park

Kingfishers have been a regular visitor to the Park for many years, due to the number of water bodies supporting small fish for them to feed on. The quality and number of water bodies has increased in recent years, thus offering the Kingfishers more foraging opportunities. In 2010 an artificial nesting site containing 2 purpose built nest boxes was constructed on the island of pond 8. This provides a safe area away from people, dogs, cats and other possible threats. It would be a good indicator of biodiversity enhancements in the Park if Kingfishers were to choose to breed and rear a brood.

2.3 Record Great Crested Newt

A major feature of Holywells Park is the large number of diverse water bodies. Historically it is highly likely that at least some of these would have supported Great Crested Newt. In recent years they have not been recorded, possibly due to predatory and invasive species of fish, duck, and terrapin. An integral part of the management plan is to seek improvements to the water bodies by measures such as dredging and plant introduction to improve habitat for our native wildlife. It will be a very significant measure of success if Great Crested Newt is recorded as a result.

2.4 Attain a Biodiversity Benchmark Award

Awarded from the Royal Society of Wildlife Trusts the Benchmark is recognition that the management of a site is contributing to the ongoing preservation and enhancement of biodiversity. If it can be gained for Holywells Park it will be the first time that a local authority has been awarded the Benchmark and as such would be a great landmark achievement.

2.5 Designate Park as a Local Nature Reserve

Holywells Park is an ideal candidate for declaration as a Local Nature Reserve and it already fits the criteria set by Natural England. Local Nature Reserves (LNRs) are for both people and wildlife. They are places with wildlife or geological features that are of special interest locally. They offer people special opportunities to study or learn about nature or simply to enjoy it. In addition, because Local Nature Reserve is a statutory declaration, it is a very clear signal to a local community of the local authority's commitment to nature conservation.

LNRs can also help local authorities meet Biodiversity Action Plan (BAP) and Sustainable Development targets. Following research, Natural England, recommended in 1996 that LNRs ought to be provided at the level of 1 ha per thousand population and accessible natural green space at levels ranging from a 20ha site within 1km of home to a 500 ha site within 10km of home (Natural England, 2009).

2.6 Install reptile & amphibian grass and log piles and survey for species present

Reptiles & Amphibians are suffering population declines nationally, recognised by the fact that almost all are now BAP species. The Park currently has records of Grass Snake, Common Frog, and Common Toad. To aid the conservation of these and to attract possible new species into the Park a number of habitat piles will be constructed in key locations such as meadows, woodland edges and so on. These will be monitored on an annual basis by the Rangers to ascertain the species that use them and that are thus present in the Park. Slow worm and Viviparous Lizard are target reptile species, whilst Great Crested Newt are a key amphibian species.

2.7 Install 10 new Stag Beetle pyramid log piles in woodland edges

The Stag Beetle is a nationally rare and protected species. Ipswich is a major part of its stronghold in the UK, where numbers are reasonably high. The Rangers have installed several log piles in the Park over the years, and left as much dead wood as possible to help maintain a healthy population. It is necessary to regularly add to the existing habitat and therefore at least 10 new log pyramids will be constructed.

2.8 Increase number of recorded dragonfly species

As the ponds are such a major landscape and wildlife feature in the Park, associated species are a useful indicator as to the water quality and general habitat quality. Dragonfly and Damselfly species should be abundant in Holywells but general observations suggest this hasn't been the case. The measures contained in the management plan aim to improve the habitats to preserve current populations and to attract new species to colonise in the future. The Rangers will undertake annual surveys to identify species and numbers present, in order to measure the success of any habitat management measures taken.

2.9 Reach 1000 species recorded in the Park species list

The figure stands at approximately 700 species. Annual surveys will be undertaken, under the supervision of the Wildlife Rangers. A further 300 species to record in the next 5 years is an achievable target because of the strong input from the community. A further way of helping to reach this target would be to engage with the County recorders in the Suffolk Naturalists Society.

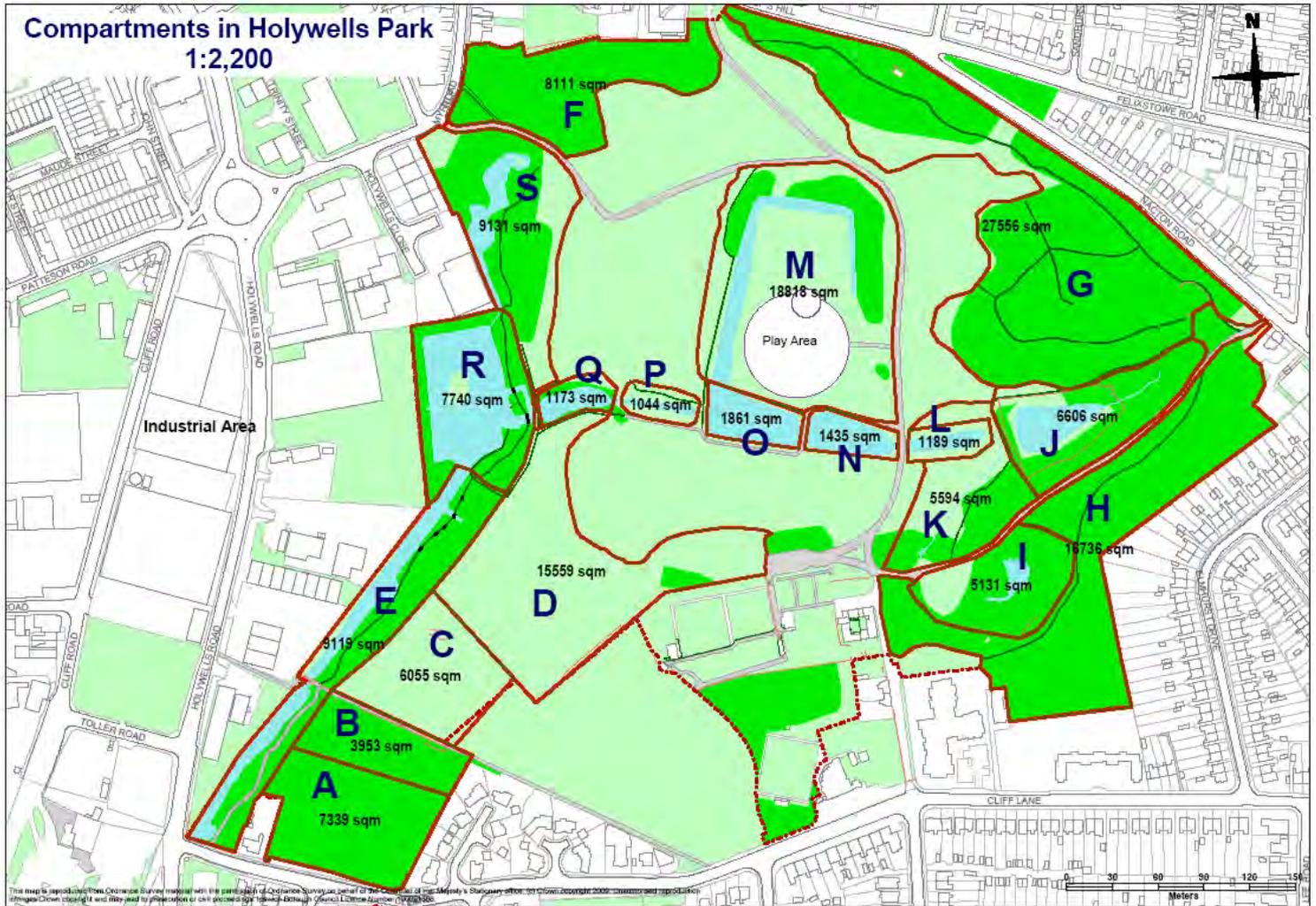
2.10 Enhance environmental education facilities

The Rangers host many environmental education workshops for Primary Schools (KS1 & KS2). The activities that are undertaken include pond dipping, invertebrate safaris, tree identification, and other art and sensory based nature studies. There are currently strict limitations on what can be offered due to the space that is available in the Stable Block complex. The use of a room large enough to accommodate relevant equipment and a group of children would provide new facilities that would extend the service the Rangers currently offer into classroom based studies, based upon findings out in the Park.

The pond dipping facilities are also in need of enhancing. There is currently only one location at one pond where a purpose built platform allows a small number of children to pond dip. During the life of this plan this will be replaced and a further one or two new platforms constructed to allow a greater number of sessions to take place, and to alleviate the disturbance that currently occurs on the one location.

Finally, in conjunction with the above, at least one pond will be landscaped to provide a purely wildlife focused pond. This will be planted with native species and managed with minimal intervention. The Dell pond, Pond 2, and Myrtle Road pond are all possible locations for this project.

3. PARK COMPARTMENT MAP



4. PARK COMPARTMENT PLANS

For the purpose of the management plan the Park is divided into 20 compartments (labelled as A – T). Each compartment has a plan which contains an ecological evaluation, management priorities and the prescriptions required to meet them.

Compartment A	Old Orchard
Total area	0.48 Hectares (4800m ²)
Grid Ref	TM1729443231
Designations	County Wildlife Site, Conservation Area
Written by	Matt Berry & Joe Underwood
Date	July 2010

A.1 Management priorities & long-term vision

- A.1.1 The area forms part of a much larger package of land parcels in the park, which are managed primarily for nature conservation. As a package these areas are very valuable due to the diversity of habitat and the much-reduced disturbance to wildlife compared with the rest of the park. It is therefore a priority to maintain the character of the area and all future management should reflect this. Furthermore, the amenity value that the canopy cover makes needs to be taken into consideration and the protective visual and physical buffer between the Park and the road needs to be maintained.
- A.1.2 The fruit trees are an important asset in the local landscape. They are by far the largest aggregation of fruit trees in Holywells Park (especially when put together with the nearby New Orchard). In addition they offer a potential site for a Traditional Orchard to be created, to form part of the overall Ipswich Traditional Orchard Project, run by IBC Parks & Open Spaces department. It is recommended that where feasible other tree species (particularly Sycamore) are thinned out and removed in order to increase light levels and space around the fruit trees. A traditional orchard project could also be set up to maintain the existing group near the southern boundary, with additional planting and maintenance taking place.
- A.1.3 The two ponds should be cleaned out and light levels increased to the stone pond to benefit its ecology. Newts and frogs have been recorded in the brick pond, which is not currently under a dense tree canopy and holds more water. Furthermore, because both ponds have straight-sided edges some form of ramp should be constructed to enable wildlife easy access and egress. The toad population (and other resident amphibians) that migrate between the two parks should be aided by the installation of log piles, the wood coming from any of the aforementioned tree work. The locations of any dead wood habitat piles should centre on the area nearest to the toad tunnel crossing (southern side of the compartment). This should provide nearer and more numerous shelter opportunities for any migrating toads.
- A.1.4 Dead (or dysfunctional) wood should be retained from any tree work in the compartment, or indeed added to by the importation of appropriate material from elsewhere. The exact amount can be agreed between relevant IBC officers. The type of wood should be as variable as possible, both in terms of

tree species and form. For example, standing dead wood, naturally fallen dead branches and trees, felled tree trunks, felled tree stumps left high, stacked log piles, partially buried log piles, and wood chip (scattered and piled). This should provide beneficial habitat to as wide a range of fungi species as possible, whilst benefiting other wildlife at the same time, e.g. Stag Beetle.

- A.1.5 The long-term aim is three fold: firstly, to enhance the biodiversity value of the area by maintaining its undisturbed character and by increasing habitat structural diversity. Secondly, the landscape history will be maintained and interpreted by the protection of existing features such as the ponds and fruit trees. Finally, and in conjunction with the first aim, the landscape character should be maintained by protecting the canopy cover that exists between the Park and the adjoining road.

A.2 Area description

- A.2.1 Due to natural succession the area has developed into secondary woodland with the predominate species being Sycamore and Ash. Previously the area would have been part of the formal gardens that the site owners landscaped prior to it becoming a public park in 1935. There are still one or two remnant features of its past use; two small circular formal ponds, one built of stone, the other of brick; and a small group of mature fruit trees planted in rows, next to the southern boundary between the park and the private residence called Holywells Cottage. Furthermore, there is a number of other fruit tree species scattered throughout the area, including a large Pear on the southeastern corner, next to Cliff Lane.

A.3 Adjacent land & use

- A.3.1 Along the entire southern boundary is the minor road known as Cliff Lane, and a single domestic dwelling called Holywells Cottage. Directly opposite is a woodland belt that forms part of Landseer Park. To the west is Holywells Road and light industry. To the east are domestic dwellings and to the north lie Kissing Gate Lane meadow and then the rest of Holywells Park.
- A.3.2 There is a toad tunnel linking Holywells Park and Landseer Park via Cliff Lane. It was constructed in 2002. As part of the tunnel feature there is a low plastic fence all along the eastern boundary of the site. There is currently no public access into this part of the park. The tunnel needs regular inspections and maintenance that should consist of flushing every 2-3 years, clearance of debris on the ground surface (to maintain light levels below), clearance of debris over fencing (to keep toads following the correct path), and any running repairs to fencing or the tunnel overall.

A.4 Possible threats

- Vandalism to the toad tunnel fence
- Fruit trees becoming swamped by woodland species and Ivy
- Public access altering the nature of the site and adjacent land parcels in the park
- Encroachment and fly tipping from domestic dwellings

- Loss of historical significance and landscape character i.e. sense of place

A.5 Ecological evaluation

- A.5.1 The compartment is heavily populated by trees and could be classified as secondary woodland. By the nature of the word secondary, there is an implication that these woodlands are a second rate, poor relation to ancient woodlands. However just because secondary woodlands do not have all the characteristics of an ancient woodland, this does not mean they have no or little value and they can often be just as important for their biodiversity, landscape or social value as many ancient semi natural woodlands. The current state of the compartment lends itself to having perhaps slightly more value for landscape than biodiversity. However, with appropriate management the pendulum can swing towards biodiversity in time to create more an equilibrium between the two.
- A.5.2 The most abundant tree species are Sycamore and Ash. In addition there is a mixture of fruit species and some Hawthorn and Blackthorn (mostly on the south and north boundaries). Increasing the structural and species diversity could easily improve the biodiversity value of the area. For example, the number of insect species associated with Sycamore is approximately 15, for Blackthorn 109 and Hawthorn 149 (Southwood, 1961).
- A.5.3 The fruit trees in the compartment are a valuable habitat for wildlife and roughly mimic an orchard. Trees within old orchards can be over 60 years old. Fruit trees decay more quickly than most British hardwoods and therefore provide good habitats for deadwood dependent invertebrates. Additionally crevices and hollows provide nesting sites for birds such as spotted flycatchers and roosts for bats. The bark also supports a wide variety of mosses and lichens. The fruits can provide a valuable source of food for wintering birds such as thrushes and for invertebrates including butterflies, bees, wasps and ants (Buckinghamshire & Milton Keynes Traditional Orchard Biodiversity Action Plan).
- A.5.4 There is potential for the presence of the Red-belted Clearwing *Synanthedon myopaeformis*, a local species, occurring in the southern half of England, occupying orchards, gardens and woodland. The larvae live under the bark of old fruit trees, especially apple (*Malus*), but sometimes pear (*Pyrus*), almond (*Prunus amygdalus*) and others (UkMoths.org). Surveys for these and others relating to fruit trees should be carried out, particularly before and after significant tree work is carried out, to inform management, and to monitor successes. The clearance of undesirable tree species such as Sycamore from around mature fruit trees should increase the likelihood of the site supporting such species.

A.6 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
A1	Tree survey, concentrating on fruit trees and feasibility study for Traditional Orchard Project.	Tree inspector / Rangers & volunteers	Summer	1
A2	Inspect and maintain toad tunnel and specialist toad fencing (see A.3.2)	Rangers & volunteers	Summer	Annually
A3	Restore the 2 small formal pools by clearance of surrounding vegetation and hand removal of silt and other debris.	Rangers & volunteers	Autumn / winter	2
A4	Retain and install different dead wood habitats (see A.1.4)	Rangers & volunteers / Arborists	Any	1,4
A5	To increase species diversity plant native understory tree species (Hawthorn, Hazel, Blackthorn etc) where appropriate, and after any Sycamore felling.	Rangers & volunteers	Autumn / winter	2-3
A6	Rear of 100 Cliff Lane. Old Pear (now dead + No ID number). Reduce to stock of 4m. Rangers to assess for wildlife issues and advise on appropriate action.	Arborists	Autumn / winter	1-2
A7	Ash, number 5559 crown lift to 5.2m to clear footpath /road	Arborists	Autumn / winter	1, 3
A8	Sycamore number 5562. Fell to open up old orchard area to rear, and to benefit aesthetically pleasing hedge along Cliff lane.	Arborists	Autumn / winter	1-2
A9	Sycamores, numbers 5573, 5574,5575. Fell – for benefit/ development of hedgerow along Cliff Lane	Arborists	Autumn / winter	1-2
A10	Ash, number 5576 crown lift to 5.2m and also cut back from streetlight no. B946	Arborists	Autumn / winter	1, 3
A11	East of 'Holywells Garden Cottage'. Sycamore, number 5581. Cut back canopy from building to give 2m clearance from roofline+ remove deadwood	Arborists	Autumn / winter	1, 4
A12	Hedge bordering footpath from canal entrance to rear boundary of 100 Cliff Lane. Cut back overhanging vegetation for footpath access. Cut back from Streetlights as required.	Arborists	Autumn / winter	1, 3

A.7 Map



References

Additional Orchards Habitat Action Plan, 2007. *Buckinghamshire and Milton Keynes Biodiversity Partnership* [online] Available at:

<http://www.buckinghamshirepartnership.gov.uk/assets/content/Partnerships/BMKBP/docs/Traditional%20Orchards.pdf> [accessed 13 August 2010]

Red-belted Clearwing *Synanthedon myopaeformis* species data, 2009. *UK Moths* [online] Available at: <http://ukmoths.org.uk/show.php?id=1076> [accessed 02 October 2009]

Southwood, T.R.E. 1961. *The numbers of species of insect associated with various trees.*

[online] The Value of Different Tree Species for Invertebrates and Lichens. Available at:

http://www.countrysideinfo.co.uk/woodland_manage/tree_value.htm [Accessed 13 August 2010].

Compartment B	Kissing Gate Lane and Meadow
Total area	0.6 Hectares (6180m ²)
Grid Ref	TM1732443294
Designations	County Wildlife Site, Conservation Area
Written by	Matt Berry & Joe Underwood
Date	August 2010

B.1 Management priorities & long-term vision

- B.1.1 The long-term aim is to protect and enhance the biodiversity value of the area via the continuation of appropriate management using good practice for wildlife. The compartment forms part of a larger parcel of land, with the various components of it being managed principally for wildlife. The long-term goal should be to recognise the value of keeping all the pieces together and therefore to ensure that public access is managed appropriately.
- B.1.2 Dead (or dysfunctional) wood should be retained from any tree work in the compartment, or indeed added to by the importation of appropriate material from elsewhere. The exact amount can be agreed between relevant IBC officers. The type of wood should be as variable as possible, both in terms of tree species and form. For example, standing dead wood, naturally fallen dead branches and trees, felled tree trunks, felled tree stumps left high, stacked log piles, partially buried log piles, and wood chip (scattered and piled). This should provide beneficial habitat to as wide a range of fungi species as possible, whilst benefiting other wildlife at the same time, e.g. Stag Beetle. The wood should be located in scrub and woodland / hedgerow margins around the meadow edges so that it is not disturbed by meadow management and is in semi to full shade, of benefit to the most amount of species.
- B.1.3 The meadow is a haven for a whole host of wildlife. To maximise the attractiveness of it to as many different types of wildlife as possible the mowing regime should include areas that are not cut for approximately 3-5 years to benefit small mammals, reptiles, and amphibians. Furthermore, a key aim should be to reduce the amount of aggressive plant species such as Hogweed and Bindweed, so as to encourage species diversity into the future.

B.2 Area description

- B.2.1 The major component of compartment B is an area of lowland meadow, known locally as 'Kissing gate lane meadow'. The gently sloping, rectangular shaped meadow is sheltered and enclosed on all four sides by a mixture of hedgerow and woodland. There is also a public right of way known as 'Kissing Gate Lane' that runs from northwest to southeast, parallel with the eastern side of the meadow. It connects Cliff Lane at the top with Holywells Road at the lower end and effectively dissects the park in two. There is currently no recognised public access into the meadow, although it is visited by a small

number of people that tend to use it as a short cut onto the top section of Kissing Gate Lane.

B.3 Adjacent land & use

B.3.1 To the west is the Park canal (compartment E) and beyond that private industrial land. To the north is the new orchard (compartment C). To the northeast (outside the park) and towards Cliff Lane is the Holywells allotment field. Private domestic dwellings, built above significantly high gabion walls, border the eastern edge of the meadow. To the south lies the old orchard (compartment A).

B.4 Possible threats

- Hogweed and bindweed invasion in the meadow
- Trees being allowed to encroach from surrounding hedgerows and woodland onto meadow
- Excessive public access, altering the nature of the meadow and adjacent land parcels in the park
- Loss of landscape character i.e. sense of place.
- Fly tipping from domestic dwellings

B.5 Ecological evaluation

B.5.1 The hedgerow on the western side consists of a number of mature Ivy clad Hawthorn, some of which have fallen or are likely to fall, due to the weight of the Ivy. The meadow has a number of interesting plant species (Meadow Saxifrage, Common Knapweed, Ox-eye Daisy, Ox-lips, Cowslips etc). However, there is a dominance of Hogweed that has spread throughout the meadow in recent years, to the detriment of other more desirable species. There has also been a spread of bindweed into the meadow, most probably introduced in woodchip that was used to mulch the new hedge on the northeastern edge approximately 8 years ago.

B.5.2 National BAP species recorded include Grass Snake and Stag Beetle. The meadow supports a wide range of invertebrate species. For example some of the numerous butterflies recorded include Common Blue, Brown Argus, Holly Blue, Painted Lady, Clouded Yellow, Brimstone, Comma, Peacock, Small Tortoiseshell, Large White, Small White, and Orange-tip

B.5.3 Overall the area is a haven for wildlife and the rural landscape character makes it a special place, particularly for such an urban setting.

B.6 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
B1	Cut, leave for a few days, and remove material from meadow, leaving a reptile and small mammal zone (B1a) in the top half that will have approximately 30% cut once every 3-5 years. All cut material to be kept on site as grass heaps.	Rangers & volunteers / GM	Autumn	Annually for most of meadow but year 4 for rest (see prescription)
B2	Treat Hogweed by hand using a combination of flower head removal and weed wipe system (review treatment success after 2 years).	Rangers & volunteers / GM	Spring & summer	1,2
B3	Construct / top up grass heaps for reptiles	Rangers &	Autumn	Annually

	on the edges of the meadow (currently concentrated on northern and western edges).	volunteers / GM		
B4	Coppice remaining Ivy clad hedgerow tree. Tree numbers 5629, 5630 (Hawthorns).	Rangers & volunteers	Autumn / winter	1-2
B5	Re-coppice Ash tree in meadow. Tree listed as 'Stump'	Rangers & volunteers	Autumn / winter	1-2
B6	Repair or replace wooden fence next to young hedge and gap up to stop undesirable access points into the meadow from the lane.	Rangers & volunteers	Autumn / winter	1
B7	Add to existing dead wood habitat and create more around all edges of the meadow.	Rangers & volunteers	Any	1,5
B8	Coppice a different section of the hedge on northern side of meadow, that runs parallel with the lane.	Rangers & volunteers	Winter (to ensure any berries are taken by wildlife)	2,5

Compartment C	New orchard
Total area	0.7 Hectares (7360m ²)
Grid Ref	TM1735943339
Designations	County Wildlife Site, Conservation Area, Regionally Important Geological Site
Written by	Matt Berry & Joe Underwood
Date	August 2010

C.1 Management priorities & long-term vision

The vision is to create an exemplar community orchard that managed in harmony with nature and as a community space for all to enjoy. The long-term objective is to manage a number of the fruit trees as standard and tall-stemmed, as these offer the best opportunities for wildlife and help to keep a diverse structure in the orchard. In time it is hoped that the orchard will make the transition into a Traditional Orchard, linking in with the Council's Ipswich wide Traditional Orchard Project.

B.1.2 Dead (or dysfunctional) wood should be retained from any tree work in the compartment (except Cherry spp that could infect trees with Silver Leaf), or indeed added to by the importation of appropriate material from elsewhere. The exact amount can be agreed between relevant IBC officers. The type of wood should be as variable as possible, both in terms of tree species and form. For example, standing dead wood, naturally fallen dead branches and trees, felled tree trunks, felled tree stumps left high, stacked log piles, partially buried log piles, and wood chip (scattered and piled). This should provide beneficial habitat to as wide a range of fungi species as possible, whilst benefiting other wildlife at the same time, e.g. Stag Beetle. The wood should be located in orchard and woodland / hedgerow margins around the meadow edges so that it is not disturbed by meadow management and is in semi to full shade, of benefit to the most amount of species.

C.2 Area description

C.2.1 The 'New Orchard' was once part of the Holywells allotment field until approximately 20 years ago when it was abandoned for cultivation due to a large infestation of *Equisetum telmateia* (Great Horsetail). The area was then fenced and became part of the Park. In approximately 1992 it was planted as a 'fruit and nut orchard' by Park staff. The concept was for an Orchard comprising of local varieties for an education message about sustainable food production and protection of local and national diversity. The main aggregation of fruit trees is in the centre of the compartment, in an approximate circular formation. Surrounding that is a crescent of native trees and shrubs including *Corylus avellana* (Hazel) and *Malus sylvestris* (Crab Apple) to continue the fruit and nut theme. The original concept for this area was to include an example of every British native tree species (32). That concept was not fulfilled, although there is still a reasonable number of species present. It is deemed that the compartment is not large enough to accommodate this, and if desired another area of the Park (or indeed another site, e.g. Landseer) should be used.

C.2.2 The site is permanently locked and only open to the public for special events and education visits. The Friends of Holywells Park group maintain a strong interest, working in partnership with Parks & Open Spaces staff to manage the site. They also undertake public events in the orchard, most notably an annual Apple Day in October.

C.3.3 The New Orchard has provided the Park with a replacement for the orchard that once used to cover the moated plateau, now the location for the play area.

C.3 Adjacent land & use

C.3.1 The orchard is surrounded by parkland apart from Holywells allotment field adjacent to the east. Kissing Gate Lane (part of compartment B) borders the southern edge. The orchard forms part of a significant parcel of land that is highly valuable to wildlife due to its myriad of habitats, sensitive management and low level of public access.

C.4 Possible threats

- Public access altering the character of the orchard and introducing dog faeces to an otherwise 'guaranteed' clean site for school visits.

C.5 Ecological evaluation

C.5.1 The orchard¹ makes a valuable addition to the Park in terms of adding another habitat type. This makes it a very distinctive place. In addition the very low level of disturbance by the public or dogs provides an area of safety for wildlife to thrive. For example foxes and evidence of their dens are frequently seen here.

C.5.6 The dense woodland and scrub habitat bordering most of the orchards perimeter offers valuable habitat for foraging and nesting birds. Species recorded include *Carduelis spinus* (Siskin), *Aegithalos caudatus* (Long-tailed Tit), *Pyrrhula pyrrhula* (Bullfinch), *Sylvia communis* (Whitethroat) and *Sylvia atricapilla* (Blackcap). The grassland amongst the fruit trees and bordering the woodland is valuable for invertebrates and amphibians, particularly *Rana temporaria* (Common Frog) and *Bufo bufo* (Common Toad). Just outside the orchard and to the northwest there is a linear formation of very large hybrid poplars and a pair of *Falco tinnunculus* (Kestrel) is regularly seen nesting in one of them from the orchard and a *Vulpes vulpes* (Red Fox) is also a regular visitor to the area.

C.5.7 There is *Primula vulgaris* (Primrose) and *Galanthus Nivalis* (Snowdrop) growing at the northern end of the site. These, along with a clump of *Galium odoratum* (Woodruff) in the woodland area bordering the allotment were all introduced in the last 5 years.

¹

Orchards defy tidy categorisation. They are neither woodland, grassland, hedgerow, or wood pasture. The wonder of these places stems from the fact that they can be all these habitats at once. At their best, orchards offer a patchwork attractive to everything from beetles and bats to badgers and butterflies. On the scaly bark of old Bramley trees in No Man's Orchard, Kent's first Community Orchard, sharp-eyed botanists have spied at least 33 species of lichens and mosses. 'Biodiversity' thrives in places that are themselves diverse, and have been that way for a long time.

If the orchard is surrounded by an old and varied hedge, all the better. The hedge itself may contain locally distinctive fruit trees, such as damsons in Shropshire or cherries in Norfolk, while it provides another refuge for nesting and feeding.

Traditional orchards of tall-stemmed trees offer the best opportunities. Full-sized fruit trees harbour valuable spiders, grubs and beetles for trunk feeders such as nuthatches and treecreepers, which will find rich pickings under the bark flakes of apple and in the crevices between the chequerboard scales of pear. Orchard trees, with the exception of walnut and pear, rot relatively quickly, allowing colonisation by hole-dwelling birds including woodpeckers, which are among the most common orchard birds (England in particular, 2009).

C.5.8 The fruit trees provide a valuable source of spring nectar for invertebrates. The abundance of fruit (including windfalls) provides food for invertebrates, birds and mammals.

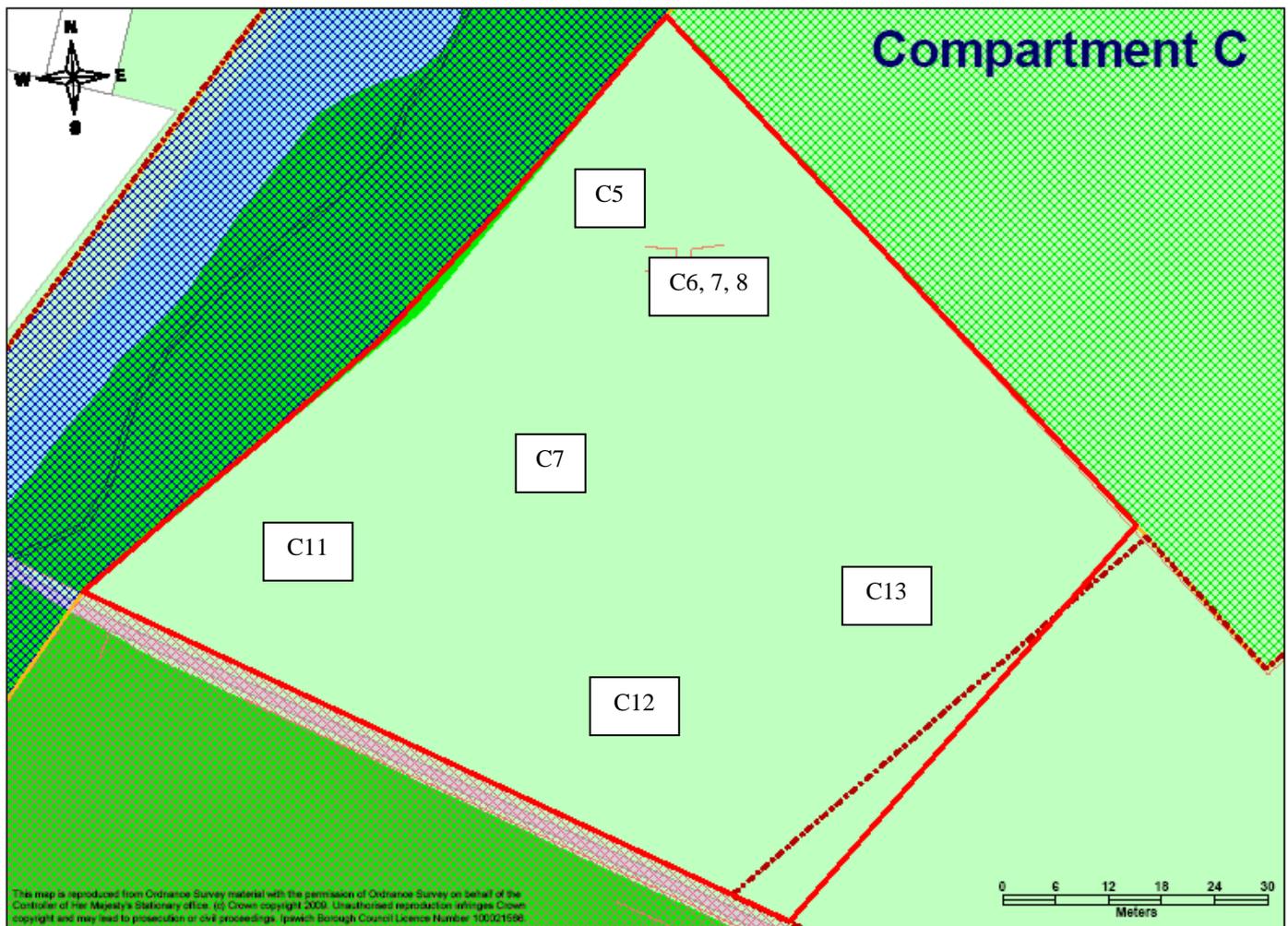
C.5.9 A number of bird boxes are installed in the woodland areas. These offer supplementary nesting opportunities but do require monitoring and maintenance / replacement. Other habitats installed include a number of log piles and grass heaps and these should be topped up as material becomes available – as a result of annual management tasks.

C.6 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
C1	Tree survey, paying particular attention to the fruit trees to map and identify varieties.	Arbs / Rangers & volunteers	Any	1
C2	Coppice proportion of woodland trees in close proximity to the fruit tree cluster in the centre. Northeast side 1st southwest side 2 nd .	Rangers & volunteers	Winter	2,4
C3	Fruit tree pruning.	FOHP	Winter, Summer (Prunus spp)	Annually
C4	Cut and remove main area of grassland and the 2 paths that criss-cross the orchard 5 times a year for event access.	Rangers & volunteers / FOHP	Spring / Summer / Autumn	Annually
C5	Cut and remove nettle terrace (50% at a time). Monitor breeding seasons of butterflies to ascertain appropriate cutting time (e.g. Small Tortoiseshell).	Rangers & volunteers	Mid summer and late autumn	Annually
C6	Remove fencing from around pond	Rangers & volunteers	Winter	1
C7	Cut and remove vegetation around pond	Rangers & volunteers	Winter	1
C8	Dig out pond(s) as appropriate to maintain as open water. Reline with locally sourced London clay and profile banks as gently sloping to benefit wildlife. Also, create and maintain silt traps further up the pond system.	Rangers & volunteers	Winter	1,3,5
C9	Top up habitat piles with fresh logs and grass cuttings.	Rangers & volunteers	Autumn / winter	Annually
C11	Manage bramble and other scrub in Northwest corner by cutting approx one third of the total area.	Rangers	Winter	Annually
C12	Remove old mushroom seats and add to a log piles as habitat. Replace with new seats as and when they become available.	Rangers	Any	1

C13	Cut woodland path and do any necessary tree pruning to maintain access	Rangers / FOHP	Any	Annually
C14	Introduce a selection of native wildflower plants that are proven to do well in nearby locations. For example Cowslips.	Rangers	Spring	1,2
C15	Maintain living willow tunnel	FOHP	Any	Annually
C16	Control invasive plants from under fruit trees. For example, Horsetail & Bindweed	FOHP	Any	Annually

Map



References

The Orchard Path: Orchards and Wild Life, 2009. *England in particular* [online] Available at: <http://www.england-in-particular.info/orchards/o-wlife.html> [accessed 06 October 2009]

Compartment D	New meadow
Total area	1.4 Hectares (14600m ²)
Grid Ref	TM1742943404
Designations	County Wildlife Site, Conservation Area, Regionally Important Geological Site
Written by	Matt Berry & Joe Underwood
Date	July 2010

D.1 Management priorities & long-term vision

D.1.1 The long-term aim is to maintain the area as a key wildlife habitat in the Park, by ensuring that correct management and uses are sustained. A key element is education and some on site interpretation will be installed to help promote the meadow and the value of it to the public.

D.2 Area description

D.2.1 The vast majority of the compartment comprises of lowland meadow habitat. Topographically, the meadow is a large gently sloping bank. There are numerous natural springs and flushes situated towards the top end of the meadow that hydrate it, producing some lush vegetation in places. To the south and west sides of the meadow there is a mixture of scattered parkland such as *Quercus robur* (English Oak) and *Tilia europaea* (Common Lime) trees and woodland scrub with a good diversity of native woodland trees and shrubs. The area is fully open to the public, with grass paths regularly mown under a cut and disperse regime.

D.3 Adjacent land & use

D.3.1 The meadow is surrounded on three sides by the rest of the Park. To the north is a narrow band of woodland and the canal, to the west is the new orchard and to the east are ponds and areas of amenity grassland in the parkland core. The south side borders the Holywells allotment field.

D.4 Possible threats

- Lack of understanding about value of the meadow habitat, leading to negative attitudes

D.5 Ecological evaluation

D.5.1 The meadow is an integral part of a large parcel of the parks land that consists of a myriad of different habitats that is managed principally for wildlife. It is therefore of great ecological value. Most of the meadow area is NVC classified as MG10a *Holcus lanatus* –

Juncus effusus rush-pasture. The wet areas adjacent to the orchard are classified as OV24a *Urtica dioica* – *Galium* community – *Equisetum telmateia* variant. Along the northern edge there are areas of OV25a *Urtica dioica* – *Cirsium arvense* community and *Urtica dioica* – *Galium aparine* community (Jonny Stone, 2003).

D.5.2 *Lowland meadows are taken to include most forms of unimproved neutral grassland across the enclosed lowland landscapes of the UK. The habitat comprises not only grasslands cut for hay, but also unimproved neutral pastures where livestock grazing is the main land use. Additional examples may be found in recreational sites, churchyards, roadside verges and a variety of other localities. Aside from the few scarce species listed, many relatively frequent insects form particularly strong populations in lowland meadows. It is also important to recognise the valuable role that meadows can play within larger habitat mosaics where they may be combined with woodland, re-vegetated quarries, flood plains, gravel or sand pits or river corridors to create a richness of biodiversity that would not occur if the different habitats existed in isolation from one another (Buglife, 2009).*

D.5.3 The meadow does not have a high number of floristic species, however *Centaura nigra* (Common Knapweed) and *Cirsium vulgare* (Common Thistle) provide a rich source of nectar during the summer, supporting a range of butterfly and other invertebrates. The Knapweed has been spreading in recent years and thus is a good indication that if the current management regime is sustained the diversity of flora should increase in time. The grasses themselves are invaluable regardless and support larval stages of butterflies such as *Maniola jurtina* (Meadow Brown) and *Aphantopus hyperantus* possibly (Ringlet), plus a more recent arrival from the continent – the *Argiope bruennichi* (Wasp Spider) that preys on the abundance of *Metrioptera roeseli* (Roesels Bush Cricket) and *Conocephalus discolor* (Cone-head Bush Cricket).

D.5.4 The scrub habitat that adjoins the orchard is a very valuable buffer zone for both the orchard and meadow. It creates a dynamic interface between the varying structural layers, thus is utilized by a broad range of fauna species. The species planted have been selected to benefit native wildlife, for example *Rhamnus alnus* (Alder Buckthorn) for *Gonepteryx rhamni* (Brimstone butterfly). This scrub area has been increased in recent years with plantings of *Prunus spinosa* (Blackthorn) and *Salix caprea* (Sallow).

D.5.5 Furthermore, there are a number of significant trees in the southwest corner of the meadow. In particular mature – ancient English Oaks. A line of Oaks extends from this point and runs parallel with the boundary between the park and the allotments. A Common Lime intersects this line and to maintain the oak boundary feature it would be advantageous to remove the Lime. This act would also benefit the hedgerow that was planted along this fence line approximately 9 years ago, increasing levels of light and growing room. The hedge could be laid to add habitat variation and to maintain it at an acceptable height (due to proximity with allotment plots).

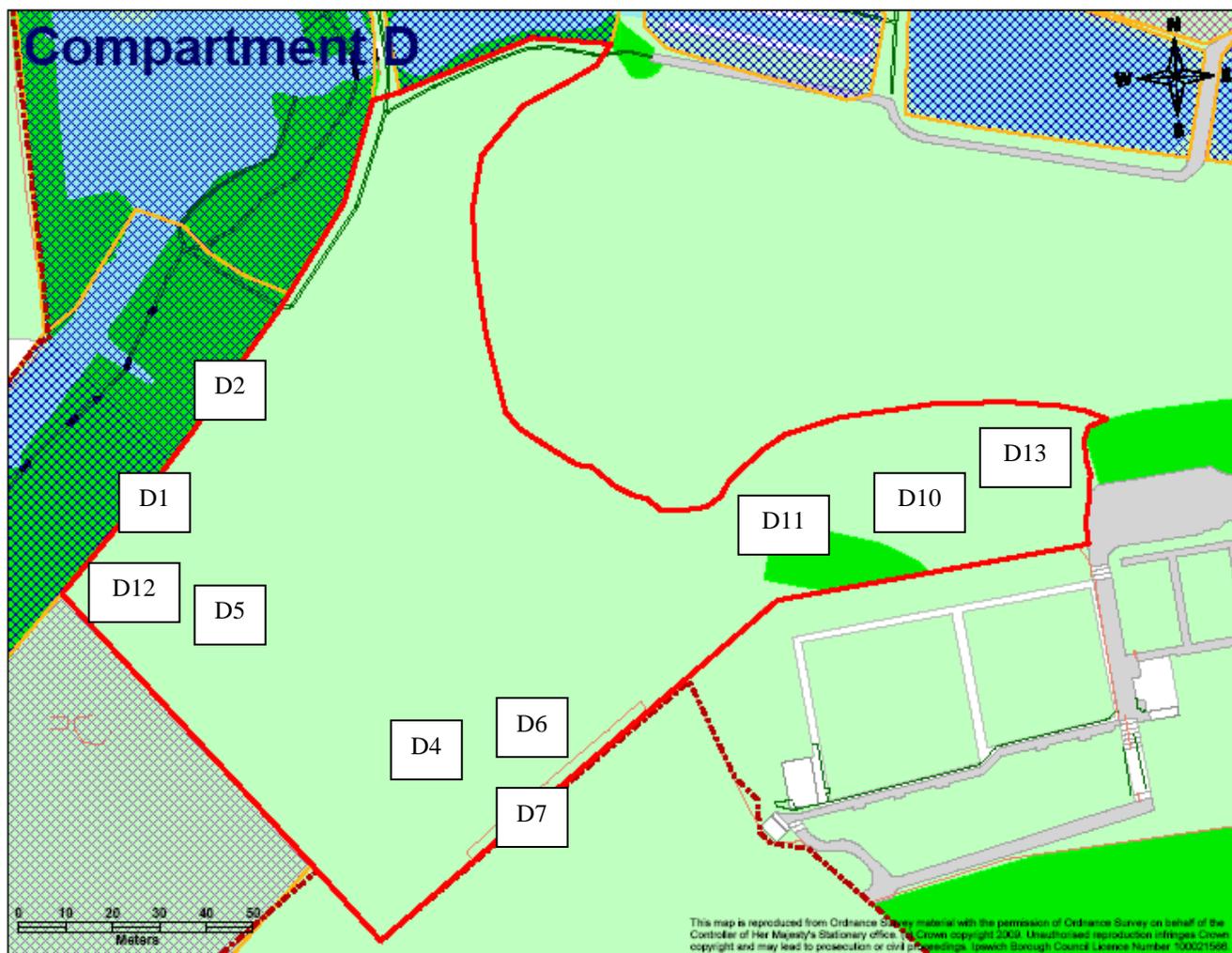
D.5.6 Along the northern edge of the meadow compartment there is a mixture of Nettle, Bramble, Elder and other scrub, backing onto trees next to the canal (primarily Oak, Ash, Willow and hybrid Poplar). It is an important habitat for invertebrates and birds, structural layers are vital in helping towards the maximum biodiversity potential being attained and this habitat should be managed accordingly and to hold it in its current desirable state of natural succession.

D.6 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
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D1	Cut approximately 25% of the nettle / bramble / Elder scrub habitat along the north to northwest edge and pile on site for habitat. Pay special attention to protecting Buckthorn trees.	Rangers & volunteers	Winter	Annually
D2	Coppice and stump treat young poplars that encroach into meadow edge along northwest boundary. Identify a small number on the canal side to be allowed to mature in order to replace the huge over mature specimens that are a landscape feature of the Park. Small trees not numbered on CAD drawings	Rangers & volunteers	Winter	1
D3	Cut and remove meadow, leaving a different 25% uncut each year.	GM	Autumn / winter	Annually
D4	Maintain area of meadow on south to southeast side as reptile & small mammal habitat – only cut 25% every 4 years to complement adjacent slow worm habitat in allotments.	Rangers & volunteers	Winter	4
D5	Cut and remove Horsetail area next to the orchard	Rangers & volunteers	Late summer	Annually
D6	Remove Common Lime from allotment hedge. Tree nos. 5836, 5838, 5839, for benefit and long term development of meadow area	Rangers & volunteers	Winter	1
D7	Lay hedge along the boundary with the allotments	Rangers & volunteers	Winter	1
D8	Install and top up grass heaps as reptile habitat	Rangers & volunteers / GM	Autumn	Annually
D9	Design and install on site interpretation for meadow and bat tree	Rangers & volunteers	Any	1-2
D10	Fence around bat oak tree as part of the grant aided project.	External contractor	Winter	1
D11	Remove bamboo from area next to bat oak tree	GM	Winter	1-2
D12	Selectively thin the trees outside the orchard gate. Trees not numbered on CAD drawings	Rangers & volunteers	Winter	1,5
D13	Plant native trees (Hawthorn, Blackthorn, Buckthorn) inside Bat Oak fenced area.	Rangers & volunteers	Winter	1-2

Map



References

Lowland Meadow, 2009. *Buglife* [online] Available at:
<http://www.buglife.org.uk/conservation/adviceonmanagingbaphabitats/lowmeadows.htm>
[accessed 6 October 2009]

Stone, J. (2003) 'Vegetation survey of Holywells Park compartments' in *NVC Survey*

Compartment E	The Canal
Total area	0.8 Hectares (8270m ²)
Grid Ref	TM1732643398
Designations	County Wildlife Site, Conservation Area
Written by	Matt Berry & Joe Underwood
Date	July 2010

E.1 Management priorities & long-term vision

- E.1.1 To maintain the open water habitat by strategic coppicing along both sides of the canal, and dredging operations.

E.2 Area description

- E.2.2 The Canal is 300 metres long, 10 metres wide, and a slowly moving shallow water body. Most of the Park's water flow culminates in it, before exiting the park via a pipe next to the lower Cliff Lane entrance where it ultimately ends up in the River Orwell. There is a footpath running along its entire length on the south side. The area is quite wooded, although the density of tree cover has been reduced significantly from the area immediately next to the canal in the past 5-10 years. The footpath starts at the wooden field gated entrance into the Park, leading into the Park interior, with its first major destination being the large pond. The area has a quiet, rural character, spoilt only by the close proximity of the light industrial estate on the north side of the canal.

E.3 Adjacent land & use

- E.3.1 A light industrial estate skirts the entire length of the north boundary of the canal and is clearly visible and unfenced in many places. There is a connection to it via kissing gate lane that crosses the canal via a wooden bridge. To the south (beyond the ribbon of woodland) lie the Old Orchard, Kissing Gate Lane Meadow, the New Orchard, and the new meadow. Together with the canal these compartments make up a large landmass of wildlife habitats and thus are of great local significance. To the west is the Park entrance and Cliff Lane and to the east is the large pond that is connected to the Canal itself.

E.4 Possible threats

- Environmental pollution from the industrial estate (frequent issue over the years)
- External site development on the north side of the canal
- Damage to canal bank on north side, caused by trees falling over and by intrusion with retaining walls made by industrial estate owners.

E.5 Ecological evaluation

E.5.1 The direct connectivity to other habitats in this corner of the Park makes the canal of great local importance to wildlife. Together the canal and various adjacent compartments make up a significant landmass of diverse habitat (open water, woodland, meadow, orchard). There are numerous BAP species found here, for example Kingfishers, that can regularly be seen and Grass Snake have been recorded in recent years.

E.6 Management prescription

Ref number	Prescription	Staff resources	Season	Year(s)
E1	Cut both sides of footpath along entire length of canal twice a year, cutting some larger areas where appropriate to increase floral structural and species diversity.	Rangers	Spring & Summer	Annually
E2	Clear approximately one third of the reedbed from in front of the weir at Cliff Lane entrance.	Rangers	Any	1,4
E3	Coppice small trees along the banks of the canal on the park side.	Rangers	Autumn / winter	1,3,5
E4	Remove Himalayan Balsam (before flowering) from Northern end	Rangers	Summer	Annually
E5	Replace chain link with post and rail fencing at cliff lane gate. Coordinate tree work at same time (2 small dead Elm & 1 medium Sycamore).	External contractor & Arborists	Autumn / winter	1-2
E6	Cut vegetation that encroaches from park into the highway at Cliff Lane entrance	Rangers	Summer / autumn	Annually
E7	Woodchip path from north end of canal out into the meadow	Rangers	Autumn	Annually
E8	Coppice one third of Willow plot next to the path at northern end	Rangers	Autumn / winter	1,3,5
E9	Survey flora and fauna, paying particular attention to reptiles & amphibians	Rangers	Spring / summer	Annually
E10	Inspect and maintain path drainage channels to keep the path accessible and dry.	Rangers	Any	Annually
E11	Ash trees 5011 & 5012. Cut back canopies from building to give 2m + clearance. Cut back /shape canopy over road. Reduce Ivy cover, clear base for inspections.	Arborists	Autumn / winter	1-2
E12	Cornus sp. Cut back overall reduction 20% to open up view from gateway	Arborists	Autumn / winter	1-2
E13	Various vegetation along chain link fence to junction with Holywells Road as in E5 Cut back / remove to allow installation of post /rail fence and to open up views of park canal from Cliff lane	Rangers	Autumn / winter	1-2
E14	Corylus sp Coppice multi-stemmed Hazel below tree number 5010 (Ash)	Arborists	Autumn / winter	1-2
E15	Dead Elm/s, number 5003, dead Sycamore (as suggested by Rangers work plan) Fell/ clear	Arborists	Autumn / winter	1-2
E16	Sycamores, numbers 5004 & 5005	Arborists	Autumn / winter	1-2
E17	Ash, number 5013. Clear Ivy from around base to improve visibility, + remove lower limb	Arborists	Autumn / winter	1-2
E18	Dead Elder + line of Hawthorns to east of	Arborists	Autumn / winter	1-2

	Oak, number 5014 – overhanging outbuilding in cottage garden			
E19	Ash, number 5018 Clear Ivy from around base up to 3m to improve visibility along footpath	Arborists	Autumn / winter	1-2
E20	Beech, number 5023	Arborists	Autumn / winter	1-2
E21	Holly, number 5501. Reshape to improve visibility	Arborists	Autumn / winter	1-2
E22	Old retrenching Ash, number 5033 – extensively decayed main trunk – hollowing etc' Further veteranise – retrench by 10% To predispose failure towards meadow area	Arborists	Autumn / winter	1-2
E23	Ash, number 5073 adjacent to lane footbridge Remove deadwood from over pathway – climbing inspection to better assess main forks of this ivy covered tree	Arborists	Autumn / winter	1-2
E24	Oak, number 5074 on footpath edge Crown lift to improve visibility	Arborists	Autumn / winter	1-2
E25	Sweet Chestnut, number 5076 Remove lower epicormic growth to improve visibility along footpath	Rangers	Autumn / winter	1-2
E26	Sweet Chestnut, number.5077 Crown lift low branches < 3m remove epicormic	Arborists	Autumn / winter	1-2
E27	Ash, number 5086 (T13) on edge of canal embankment (park side) Tall leaning tree – already identified for felling work order S403 –leave 1m tall stump for wildlife habitat (targeting Stag Beetle BAP species) Also retain between 30-50% of the timber and branch wood as habitat in the form of path edging and semi-subterranean Stag Beetle piles	Arborists	Autumn / winter	1-2
E28	Ash, number 5089 to east / overhanging footpath Reduce to 4m stock. Retain 30-50% of timber and branch wood as wildlife habitat in the form of path edging and semi –subterranean Stag Beetle piles	Arborists	Autumn / winter	1-2
E29	Poplar, number 5097 (T11) Canopy shaping / reduction of major limbs <20% over footpath	Arborists	Autumn / winter	1-3
E30	Oak, number 5101	Arborists	Autumn / winter	1-2
E31	Poplar, number 5104 (T7) Reduce /reshape canopy 20% long overextended limbs over footpath	Arborists	Autumn / winter	1-3
E32	Coryllus before footbridge to east of footpath Un numbered tree to front of Alder, number 5106 - Coppice	Arborists	Autumn / winter	1-2
E33	Ash, number 5110 Reduce / reshape 15-20%	Arborists	Autumn / winter	1-2
E34	East of footpath – Dead Elm, number 5113 Fell	Arborists	Autumn / winter	1-2
E35	Willow, number 5114 Leaning tree/s – coppice ground level	Arborists	Autumn / winter	1-2
E36	Ash, number 5120 Leaning tree – reduce 50% to prevent failure	Arborists	Autumn / winter	1-2
E37	Goat Willow, number 5127 Coppice – request from Rangers	Arborists	Autumn / winter	1-2
E38	Canal course. Clear various fallen trees & debris	Arborists	Autumn / winter	1-4

Compartment F	Bishops Hill Woodland
Total Area	8.1 ha (81111m ²)
Grid Ref	
Designations	County Wildlife Site, Conservation Area
Written By	Matt Berry & Joe Underwood
Date	December 2009

F.1 Ecological management priorities & long-term vision

- F.1.1 The ecological priorities for compartment F differ from others as this compartment could be described as more of a blank canvas. There are areas of secondary woodland that could do with active management to improve structural diversity and benefit native trees. These areas of secondary woodland straddle the Myrtle Road boundary and only take up roughly 25% of the compartment.
- F.1.2 A new generation of trees could and should be planted to ensure that any veterans that die off are being replaced. Where possible species planted should be the same as the ones being lost (Oak for Oak). This ensures continuity and provides opportunities for species to migrate from the older trees that are being lost.
- F.1.3 Any tree work undertaken in compartment F should be completed with wet rot holes and Golden Hoverflies in mind and their potential for supporting them appraised prior to any work commencing, with findings acted upon appropriately. This is particularly important when work is required on older trees with Horse Chestnut, Sycamore and Oak the most favoured.
- F.1.4 The long-term vision is to improve the structural diversity of the woodland to encourage an increase in flora and fauna. An increase in viable habitat for wildlife will also be achieved through a relaxed mowing regime and increased planting.

F.2 Area Description

- F.2.1 Due to previous management and natural succession the area has developed into patches of secondary woodland that are interspersed with gang mown short grass. There are a number of large trees such as Oak, Pine and Horse Chestnut that are scattered through the compartment that are typical trees of old parkland. It was previously part of the formal gardens that the site owners landscaped prior to it becoming a public park in 1935.

F.3 Adjacent land use

- F.3.1 Along the northern and western boundaries of compartment F are residential dwellings in the form of Bishops Hill flats and Myrtle Road. Along part of the eastern

boundary of compartment F is part of the path that runs from Bishops Hill through to Cliff Lane. Short mown grass straddles the remainder of the south and eastern boundaries and there is a path coming in from Myrtle Road that is situated to the south west of compartment F.

F.4 Possible threats

- Vandalism and damage of trees and woodland
- Litter and or fly tipping from residential areas on north and west boundaries
- Erosion of banks down to concrete path (Myrtle Road)

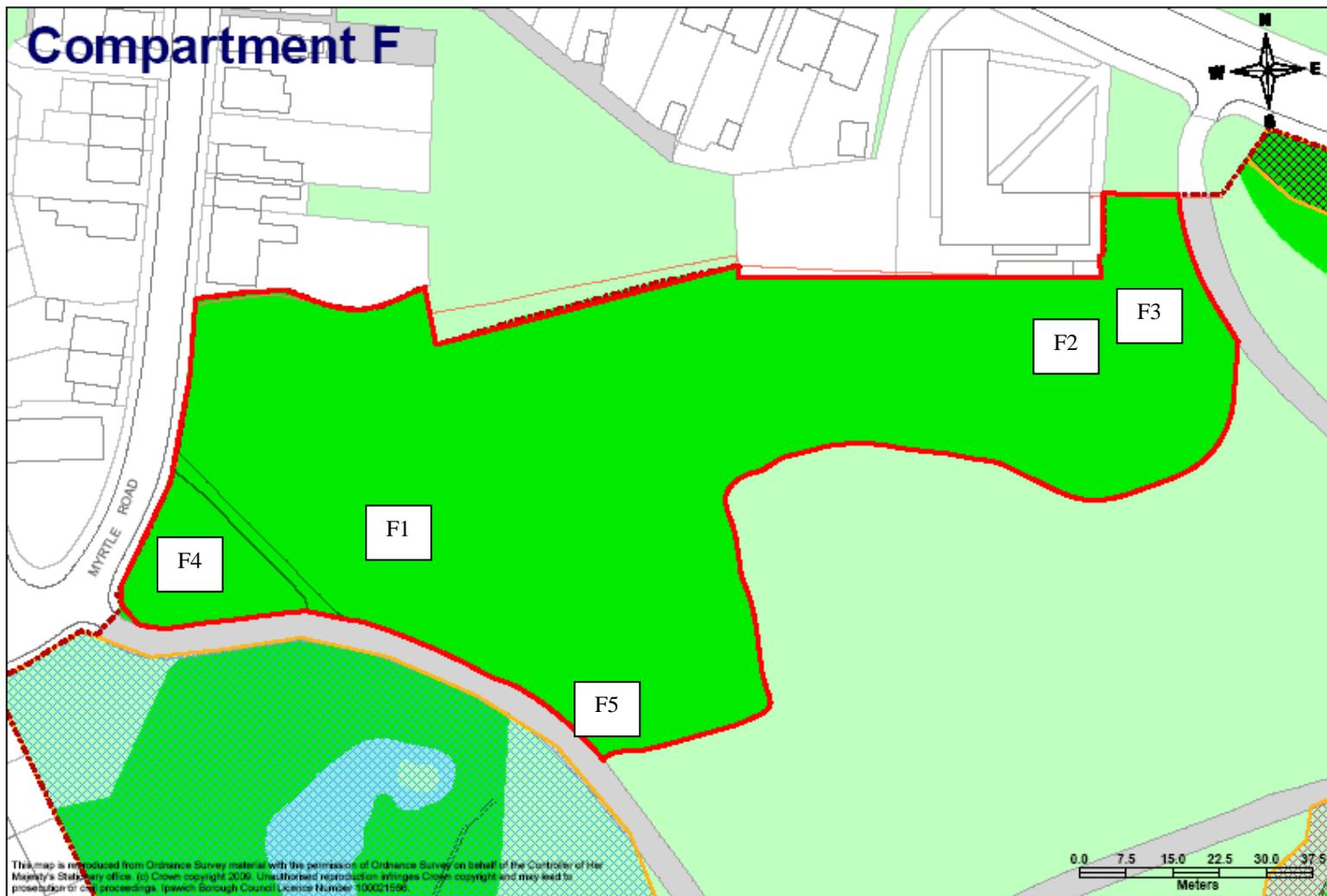
F.5 Ecological evaluation

- F.5.1 The vegetation in compartment F comprises mainly of secondary woodland. The word secondary implies that these woodlands are of second rate and a poor relation to ancient woodlands. However, this is not always the case as secondary can be and often are just as important for biodiversity, landscape and social reasons even though they do not have the same features and flora and fauna as ancient woodlands.
- F.5.2 Secondary woodland can often be conducive to rich flora and fauna but many secondary woods are without the specialist plants and animals characteristic of ancient woodlands (early purple orchids, dogs mercury and dormouse). Secondary woodlands that develop near to ancient woodland are of greatest value as they offer corridors for migration and colonisation. With time and careful management secondary woodland can develop some of the characteristics of ancient woodlands thus becoming more ecologically important.
- F.5.3 Secondary woodland can also link previously isolated areas of ancient woodland or act as a stepping-stone between ancient semi natural woodlands. Secondary woodland can also act as a buffer zone that protects areas of ancient semi natural woodland from the effects of intensive agriculture (fertiliser and pesticide drift) and built developments (road run off, noise and light pollution). (Hampshire County Council 2009).
- F.5.4 Veteran trees in the form of Oak, Horse Chestnut and Pine are heavily represented in this compartment. These trees are particularly important for the amount of dead wood they house and the specialist species the dead wood supports. European protected species such as bats use the old trees to roost thus making them ecologically very important.
- F.5.5 The last habitat found in compartment F is short mown grass. Obviously this is of minimal ecological importance but is known to support some species. Certain species of Ant tend to thrive in the short mown grass and these provide food for Green Woodpeckers that are frequently seen in the surrounding veteran trees.

F.6 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
F1	Remove Sycamore that is concentrated in one area of woodland next to Myrtle Road path. Replant with native understory species – Hawthorn, Hazel etc.	Ranger / Arbs	Winter	3-4
F2	Establish canopy wide long grass areas around 2 large trees (Oak and Sweet Chestnut) from where Poplar Island once stood.	GM	Any	1
F3	Remove intertwined Sycamore and Pine by Bishops Hill entrance	Arborists	Autumn / winter	1-2
F4	Remove 2 Common Lime from triangle next to Myrtle Road entrance. Also remove Holly close to wall by Myrtle Road entrance	Arborists	Autumn / winter	1-2
F5	Remove section of Holly next to main path	Arborists	Autumn / winter	1-2

Map



References

Hampshire County Council [online] <http://www3.hants.gov.uk/biodiversity/environment-biodiversity-landmanagement/woodland/woodland-hampshires-woodlands/woodland-secondary.htm> (accessed 5th January 2009)

Compartment G Nacton Road and Bishops Hill Woodland

Total Area 2.7ha (27556m²)

Grid Ref TM1777743627

Designations County Wildlife Site, Conservation Area

Written By Matt Berry & Joe Underwood

Date December 2009

G.1 Management priorities & long-term vision

- Maintain the balance between the needs of public recreation and wildlife.
- Enhance the structure of the woodland to encourage an increase in flora and fauna diversity.

G.2 Area description

G.2.1 The woodland along this edge of the Park is undoubtedly one of its most attractive and valuable areas of habitat. Due to an extensive programme of woodland management during the past 5-10 years the area has been greatly enhanced for biodiversity and for recreation, with a reduction of dominant species and improvement in the path network. The woodland is of vital importance to the landscape character of the Park and acts as an important buffer between the adjacent roads and residential areas.

G.3 Adjacent land use

G.3.1 Along the entire north and eastern boundary are reasonably busy roads in the form of Nacton Road and Bishops Hill. To the south is the start of the valley, natural springs and the beginnings of pond one. To the west of the compartment is short grass and more formal areas of Parkland in the topographically interesting 'snow hill'.

G.4 Possible threats

- Litter from over the wall on north and eastern boundaries
- Disturbance due to heavy public use

G.5 Ecological evaluation

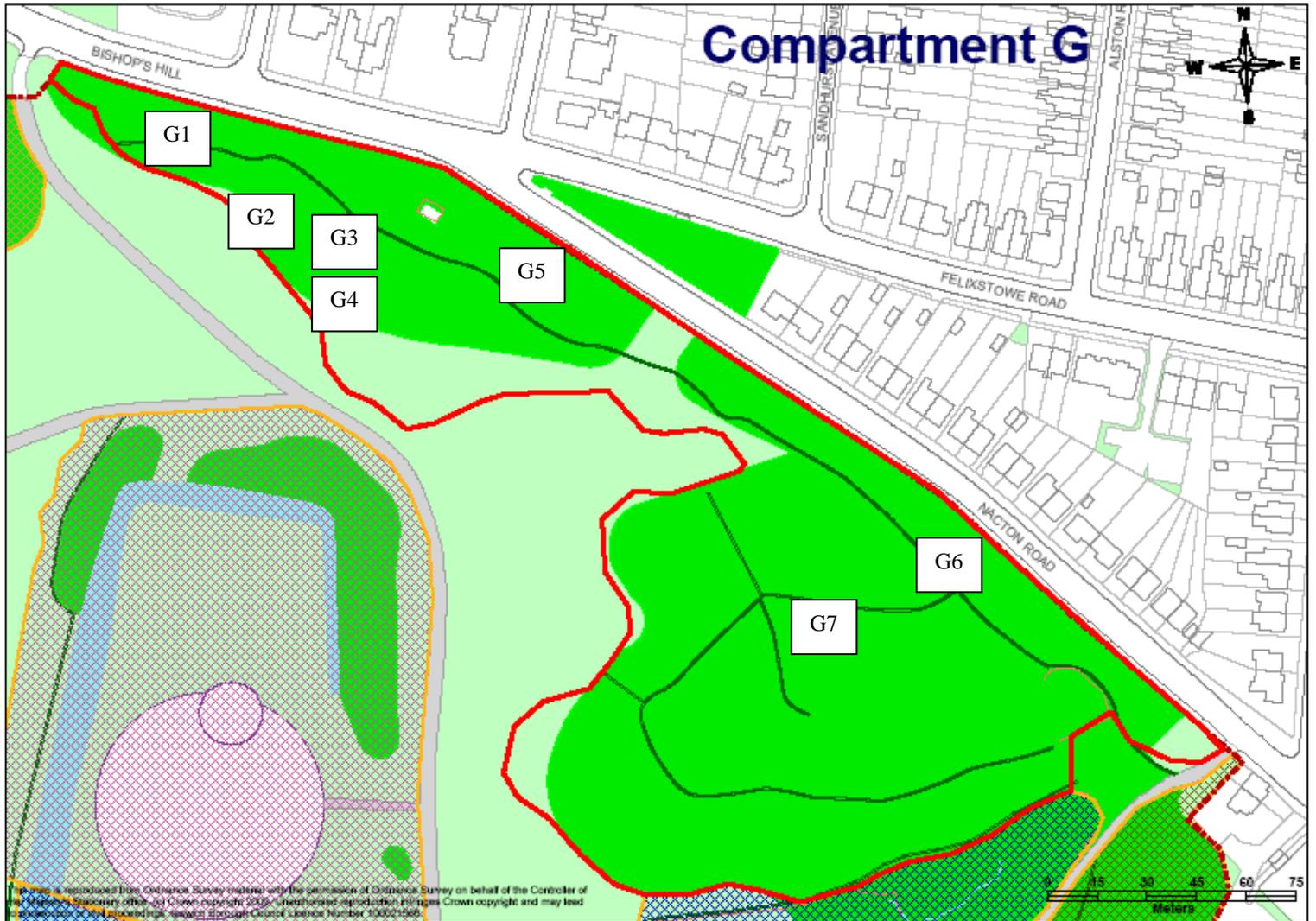
G.5.1 The vegetation in compartment H is primarily secondary woodland. The word secondary implicates that these woodlands are of second rate and a poor relation to ancient woodlands. However, this is not the case as secondary woodlands can often be just as important for bio diversity, landscape or social reasons even though they do not have the same characteristics as ancient woodland.

- G.5.2 Secondary woodlands can have a rich flora and fauna but many are without the specialist woodland animals and plants characteristic of ancient woodland (early purple orchid, dogs mercury etc). Secondary woodlands that develop near to ancient woodlands can act as a site for migration and colonisation of the plants and animals associated with ancient woodlands, and with time and careful management these woodlands will flourish and develop a richer flora and fauna. Secondary woodland can also link previously isolated areas of ancient woodland or act as a stepping-stone between ancient semi natural woodlands. Secondary woodland can also act as a buffer zone that protects areas of ancient semi natural woodland from the effects of intensive agriculture (fertiliser and pesticide drift) and built developments (road run off, noise and light pollution) (Hampshire County Council 2009).
- G.5.3 The area forms part of a belt of woodland that runs round the perimeter of the park and has high value both in terms of amenity and wildlife. The long-term aspiration for the woodland is to enhance structural and species diversity through a coppicing management system that favours native tree species.
- G.5.4 The tree species currently present are Sycamore, Pine spp, Sweet Chestnut, Holly, Horse Chestnut, Silver Birch, English and Holm Oak, Elm, Hazel, Buckthorn, Hawthorn and Rowan.
- G.5.5 The woodland has already benefited from some removal of Sycamore and replanting with a mix of native species. This should continue and include removal of remaining areas of Sycamore & Rhododendron. The improved woodland structure provides sunny spots that benefit a great deal of insects and in particular woodland butterflies. Woodland flora such as Bluebells also flourishes under a coppiced woodland regime. New areas of scrub and bramble also develop that provide nesting sites for Chiffchaff and Blackcap whilst also offering opportunities for Nightingales.
- G.5.6 Any wood generated from the coppicing will be used for bench legs, path edging, brash piles, or dug in as habitat for Stag Beetles that are reasonably common in the Park but rare nationally. Any tree work should be completed with wet rot holes and Golden Hoverflies in mind and the potential for supporting them appraised prior to any work commencing, with findings acted upon appropriately.
- G.5.7 Access should be controlled to maintain a healthy balance between public use and protection of sensitive habitats and wildlife. Consideration could be given to closure of footpaths that dissect the area and are potentially causing disturbance throughout large areas of habitat. Instead, paths could be restricted to the outer edges, thus maintaining larger blocks of undisturbed woodland.

G.6 Management prescription

Ref number	Prescription	Staff resources	Season	Year(s)
G1	Remove 6 mature Holm Oaks near Bishops Hill end of woodland and replant area with a selection of woodland natives	Arbs / Rangers	Autumn / winter	2-3
G2	Selectively coppice Elms throughout woodland to maintain vitality and structural diversity of woodland edges.	Rangers	Autumn / winter	2-3
G3	Remove area of Sycamore above previous plot and replant with woodland natives	Rangers	Winter	5
G4	Re-coppice Sycamore in 'bowl' area and treat stumps	Rangers	Winter	1
G5	Remove Rhododendrons and replant with native woodland understory species	GM / Rangers	Winter	1
G6	Remove 2 medium Sycamores	Arbs / Rangers	Winter	1
G7	Remove Rhododendrons and replant with native woodland understory species	GM / Rangers	Winter	1

Map



Compartment H	Elmhurst Drive woodland
Total Area	1.6ha (16736m ²)
Grid ref	TM1778743439
Designations	County Wildlife Site, Conservation Area
Written By	Matt Berry & Joe Underwood
Date	December 2009

H.1 Management priorities and & long-term vision

- H.1.1 The area forms part of a belt of secondary woodland that runs round the perimeter of the park and is managed almost exclusively for nature conservation with fairly low levels of public use via managed footpaths. The long-term aspiration for the secondary woodland is to increase structural and species diversity through targeted coppicing that will favour native tree species.
- H.1.2 Any wood generated from the coppicing will be used for bench legs, path edging, or dug in as habitat for Stag Beetles that are reasonably common in the Park. Any tree work should be completed with wet rot holes and Golden Hoverflies in mind and their potential for supporting them appraised prior to any work commencing, with findings acted upon appropriately.
- H.1.3 The woodland has already benefited from some removal of Sycamore and replanting with a mix of native species. This should continue and include removal of remaining areas of Sycamore & Rhododendron. The improved woodland structure provides sunny spots that benefit a great deal of insects and in particular woodland butterflies. Woodland flora such as Bluebells also flourishes under a coppiced woodland regime. New areas of scrub and bramble also develop that provide nesting sites for Chiffchaff and Blackcap whilst also offering opportunities for Nightingales.
- H.1.4 The long-term vision is to improve the structural diversity of the woodland to encourage an increase in flora and fauna.

H.2 Area description

- H.2.1 The area has over time developed into secondary woodland with the predominate species being Sycamore, Sweet chestnut, Silver birch, Oak and Holly. Previously at least part of the area would have been part of the formal gardens that the site owners landscaped prior to it becoming a public park in 1935. There is still a remnant feature of the areas past use in the form of an icehouse which is situated near the car park. There is a glade at the top of the footpath with a bench that provides a sunny spot for people to sit and relax.

H.3 Adjacent land use

H.3.1 To the west of compartment H is the main driveway, the public car park and the Mc Carthy and Stone retirement home boundary. The southern and eastern boundaries encompass residential dwellings on both Cliff Lane and Elmhurst Drive. The northwestern boundary of compartment is where the leaf yard is situated and there is a tarmac path that runs all the way through the compartment from northeast to southwest.

H.4 Possible threats

- Erosion of banks down onto concrete path (Alan Road).
- Encroachment and fly tipping from residential dwellings
- Invasion of non-native plant species from neighbouring gardens
- Poor / inappropriate woodland management

H.5 Ecological evaluation

H.5.1 The vegetation in compartment H is primarily secondary woodland. The word secondary implicates that these woodlands are of second rate and a poor relation to ancient woodlands. However, this is not the case as secondary woodlands can often be just as important for biodiversity, landscape or social reasons even though they do not have the same characteristics as ancient woodland.

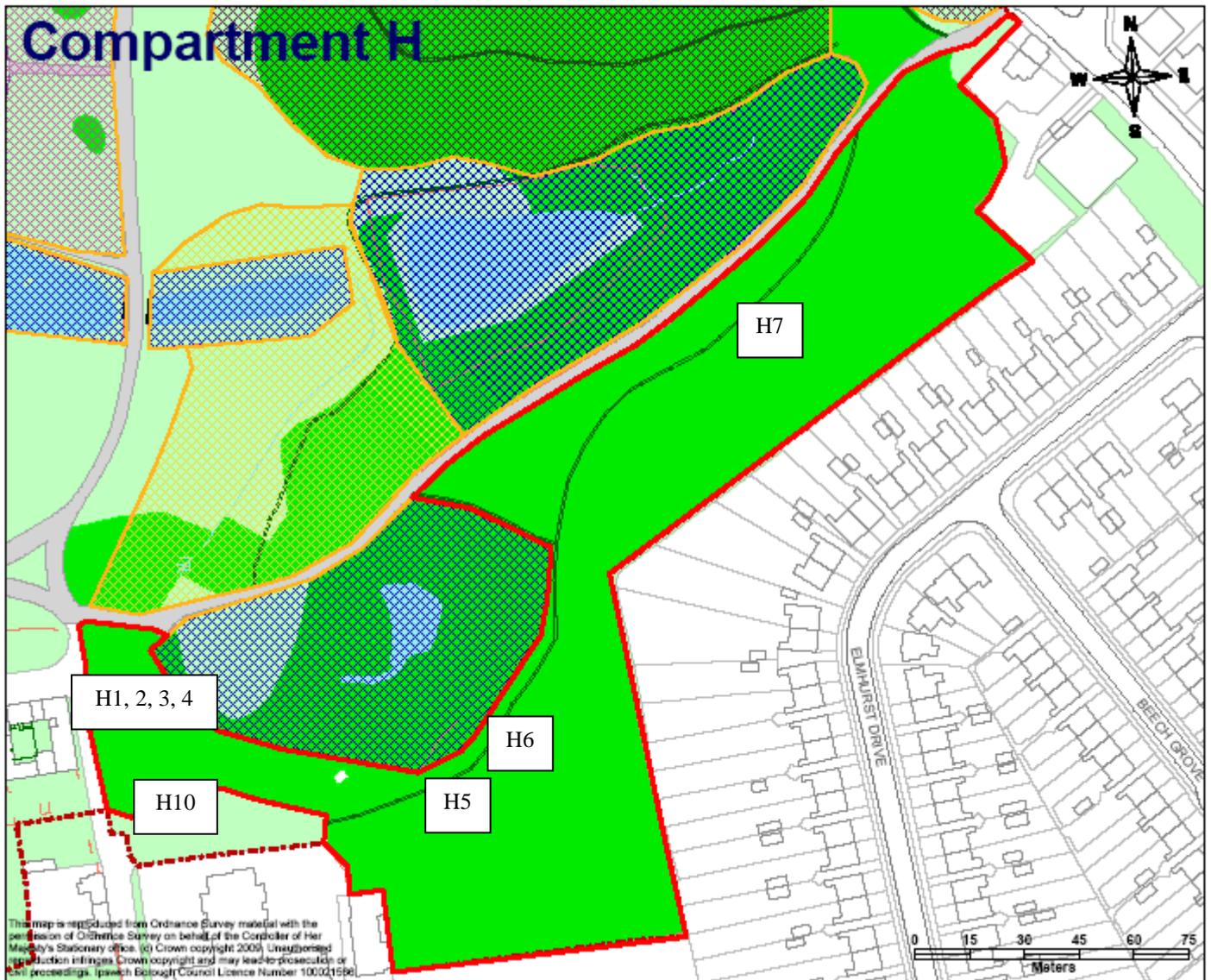
H.5.2 Secondary woodlands can have a rich flora and fauna but many are without the specialist woodland animals and plants characteristic of ancient woodland (early purple orchid, dogs mercury etc). Secondary woodlands that develop near to ancient woodlands can act as a site for migration and colonisation of the plants and animals associated with ancient woodlands, and with time and careful management these woodlands will flourish and develop a richer flora and fauna. Secondary woodland can also link previously isolated areas of ancient woodland or act as a stepping-stone between ancient semi natural woodlands. Secondary woodland can also act as a buffer zone that protects areas of ancient semi natural woodland from the effects of intensive agriculture (fertiliser and pesticide drift) and built developments (road run off, noise and light pollution) (Hampshire County Council 2009).

H.5.3 One of the key features of the woodland is the carpet of Bluebells in the spring. Dead wood is also retained and formed into specially designed Stag Beetle pyramids to provide valuable habitat for them and myriad of other species.

H.6 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
H1	Remove Horse Chestnut	Rangers	Winter	1
H2	Clear Bamboo	GM	Winter	1
H3	Fell and treat Turkey Oak	Rangers	Winter	1
H4	Create bird-feeding station, including blocking desire path from car park.	Rangers / GM	Summer / Autumn	1
H5	Coppice sweet Chestnut, bulk up and create more Stag Beetle piles	Rangers	Winter	2,5
H6	Manage Bramble & Holly edge, approx 30% at a time	Rangers	Winter	Annually
H7	Remove mature Sycamore next to coppice plot	Arborists / Rangers	Winter	5
H8	Cut and remove the open glade adjacent to steps by the Dell. Also maintain Bramble edge so it doesn't encroach too far into the grassland.	Rangers / GM	Autumn / winter	Annually
H9	Plant & maintain native trees and shrubs where appropriate, e.g. after coppicing or thinning operations.	Rangers	Autumn / winter	When necessary
H10	Remove 2 Holly from corner of car park & lift crown of others.	Rangers	Autumn / winter	1-2

Map



References

Hampshire County Council [online] <http://www3.hants.gov.uk/biodiversity/environment-biodiversity-landmanagement/woodland/woodland-hampshires-woodlands/woodland-secondary.htm> (accessed 02 October 2009)

Compartment I	The Dell
Total Area	0.51ha (5131m ²)
Grid ref	TM1774143405
Designations	County Wildlife Site, Conservation Area
Written By	Matt Berry & Joe Underwood
Date	December 2009

I.1 Management priorities & long-term vision

- I.1.1 The main priority until a long-term plan for the site is devised is to manage the pond and surrounding trees. It is recommended that to increase the ponds biodiversity value a regime of rotational coppicing of the Willow that have grown up around it should be introduced. Further tree work is also required on some of the steep banks, one large tree in particular has fallen over and now lies over the pond and it would be beneficial to remove it. Once the pond has been opened up it would be advantageous to carry out some dredging to deepen it.
- I.1.2 The long-term aspiration is to create an interesting landscape feature with a somewhat exotic feel, to build upon past use of the site. To balance this with the modern ethos of integrating biodiversity within Parks, the landscaping and management of the Dell should not be solely formal or rely on exotic species alone, rather a blend with native species. The issue of public access will need addressing and dealt with sensitively to ensure the character of the Dell is not lost.

I.2 Area description

- I.2.1 The Dell is an interesting topographical feature in the landscape. In essence it is a steep sided bowl with a spring fed water feature at its base (much like a miniature version of the entire park). There is evidence of the sites past use as some type of formally landscaped area, notably the presence of *Trachycarpus fortunei* (Chusan Palm) and Bamboo spp. In modern history and up to the present day the site has been largely fenced off and closed to the public. It has been left unmanaged and trees have thus increased and now dominate the area, particularly around the pond and the western side of the Dell. To the west the water egresses from the pond via a narrow channel into the leaf yard, where it is fed through underground pipes to a large chamber and then through more pipe work into the park where it finally exits into pond 2.
- I.2.2 The leaf yard section is a council yard facility for storage of materials and for deposit of waste into three large skips. It is notable that the skips are kept tight along the western boundary of the Dell and as such significant amounts of rubbish have been taken from them and left throughout the Dell area, in the form of dens, or just thrown into the pond.

I.3 Adjacent land use

I.3.1 To the north and northwest is the tarmac path that leads to the Nacton Road gate, beyond that is a small area of woodland between the Dell and the wetland garden stream. To the East and South is woodland that backs onto Cliff Lane and Elmhurst Drive. To the West is parkland core and the stable block complex.

I.4 Possible threats

- Erosion of steep banks
- Fly tipping from leaf yard
- Lack of tree and pond management
- Disturbance to wildlife from increased public access

I.5 Ecological evaluation

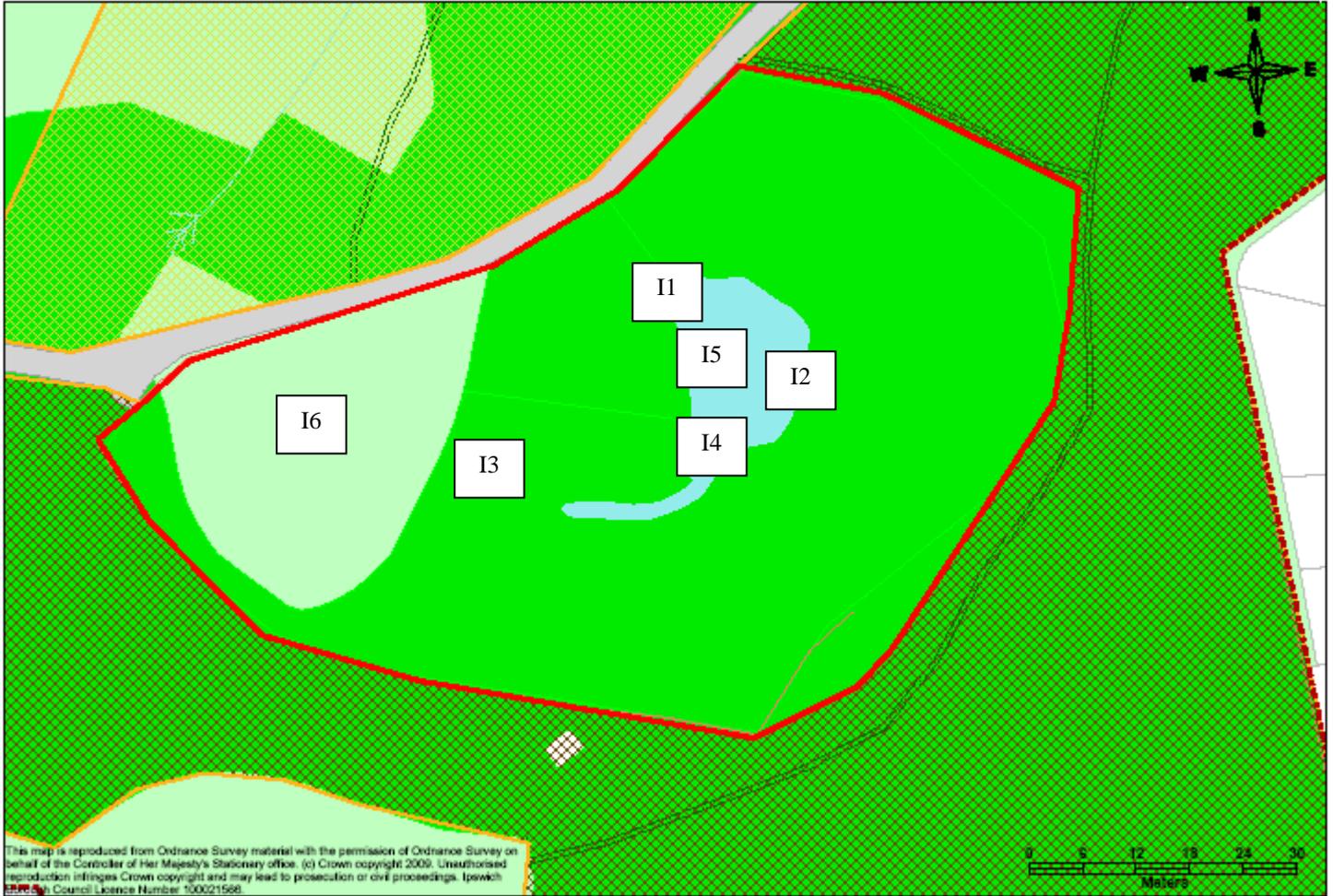
I.5.1 There has not been much time spent on studying the ecology of the area so records of species are few and far between. The pond is the most notable feature and with the right management its biodiversity value would be vastly increased. Due to the topography of the Dell it has its own microclimate, evident from the Chusan Palm that requires some shelter to thrive in England. Other tree species present are Horse Chestnut, Sweet Chestnut, Oak, Goat Willow, and Holly.

I.6 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
I1	Coppice willows around pond	Rangers	Autumn / winter	1
I2	Remove large fallen tree over pond	Arbs	Autumn / winter	1-2
I3	Create access for dredging	GM / External contractor	Autumn / winter	1-2
I4	Dredge pond	External contractor	Autumn / winter	1-2
I5	Remove rubbish from Dell area	Rangers / GM	Any	Annually
I6	Formalise and secure leaf yard	External contractor	Autumn / winter	5
I7	Plant suitable mix of native and exotic plant species	Rangers / GM	Autumn / winter	2

Map

Compartment I



Compartment J	Pond 1 & environs
Total area	0.7ha (6606 m ²)
Grid ref	TM1776543509
Designations	County Wildlife Site, Conservation Area and RIGS
Written by	Matt Berry & Joe Underwood
Date	December 2009

J.1 Management priorities & long-term vision

- J.1.1 Compartment J forms part of a significant watercourse that is managed primarily for nature conservation. As a package these ponds and associated wetland communities are very valuable due to the diversity of habitat. It is therefore a priority to maintain the character of the area and all future management should reflect this.
- J.1.2 There are a number of veteran trees situated in and around pond one. There are two Ash trees, one Sycamore and one Oak that are of considerable ecological value. These trees support a variety of bat species that are protected by European law and also provide feeding and nesting sites for specialist birds such as Greater spotted woodpecker and Treecreeper.
- J.1.3 As mentioned in the ecological evaluation there is an area of scrub of high ecological value on the eastern edge of the compartment. This area of scrub and its associated wildlife would benefit from a regular coppicing regime. The main species to target for coppicing would be Hazel as it provides good structure for nesting warblers. Ash, Beech and Elder could be reduced to retain the scrubby character of the area before they become too large and abundant and thus dominate the habitat structure and obscure views up and down and across the valley.
- J.1.4 The long-term aim is two fold. Enhance the biodiversity of the area by maintaining the undisturbed character and by increasing habitat structural diversity. Secondly the landscape history will be maintained through the preservation of the pond and the natural spring feature

J.2 Area description

- J.2.1 Compartment J (pond 1), forms the starting point of all the ponds in Holywells Park. The geology of the area means water is forced up to the surface, as it is unable to penetrate the London Clay thus forming a natural spring. This natural spring then cascades all the way down the valley, ensuring a healthy system of ponds for Holywells Park.
- J.2.2 The whole of pond one is enclosed by secondary woodland and fairly dense scrub making it very valuable for wildlife as there is limited disturbance. The compartment boasts a mosaic of other habitats that include bramble scrub and wet grassland. To

allow the public enjoyment of the natural spring area steps leading to a timber viewing area have been installed.

J.3 Adjacent land use

J.3.1 Along the entire northern boundary of compartment J is a path that is known as Brimstone alley. To the west of compartment J running north to south is a footpath that brings you out onto the tarmac path that leads to the Nacton Road entrance gate. The south of compartment J is straddled in its entirety by the tarmac path and there is scrub forming the eastern boundary opposite the Nacton Road gate.

J.4 Possible threats

- Erosion of steep banks
- Fly tipping from leaf yard
- Lack of tree and pond management
- Wildlife disturbance

J.5 Ecological evaluation

J.5.1 Pond one, in terms of ecology, is probably one of the most important compartments in the Park. The natural spring that feeds pond one provides the source of most of the water in the pond system. This type and size of system of ponds is not replicated anywhere else in Ipswich so its importance cannot be overstated. The geological rarity of this compartment is highlighted by the fact it has a RIGS designation for geological interest/ importance.

J.5.2 The eastern boundary of the compartment provides a good buffer down to the natural spring in the form of scrub of high ecological value. There is a good mix of native species with differing age ranges, this scrub provide home for nesting warblers such as Blackcap, Chiffchaff and a Nightingale has been heard in the area last spring.

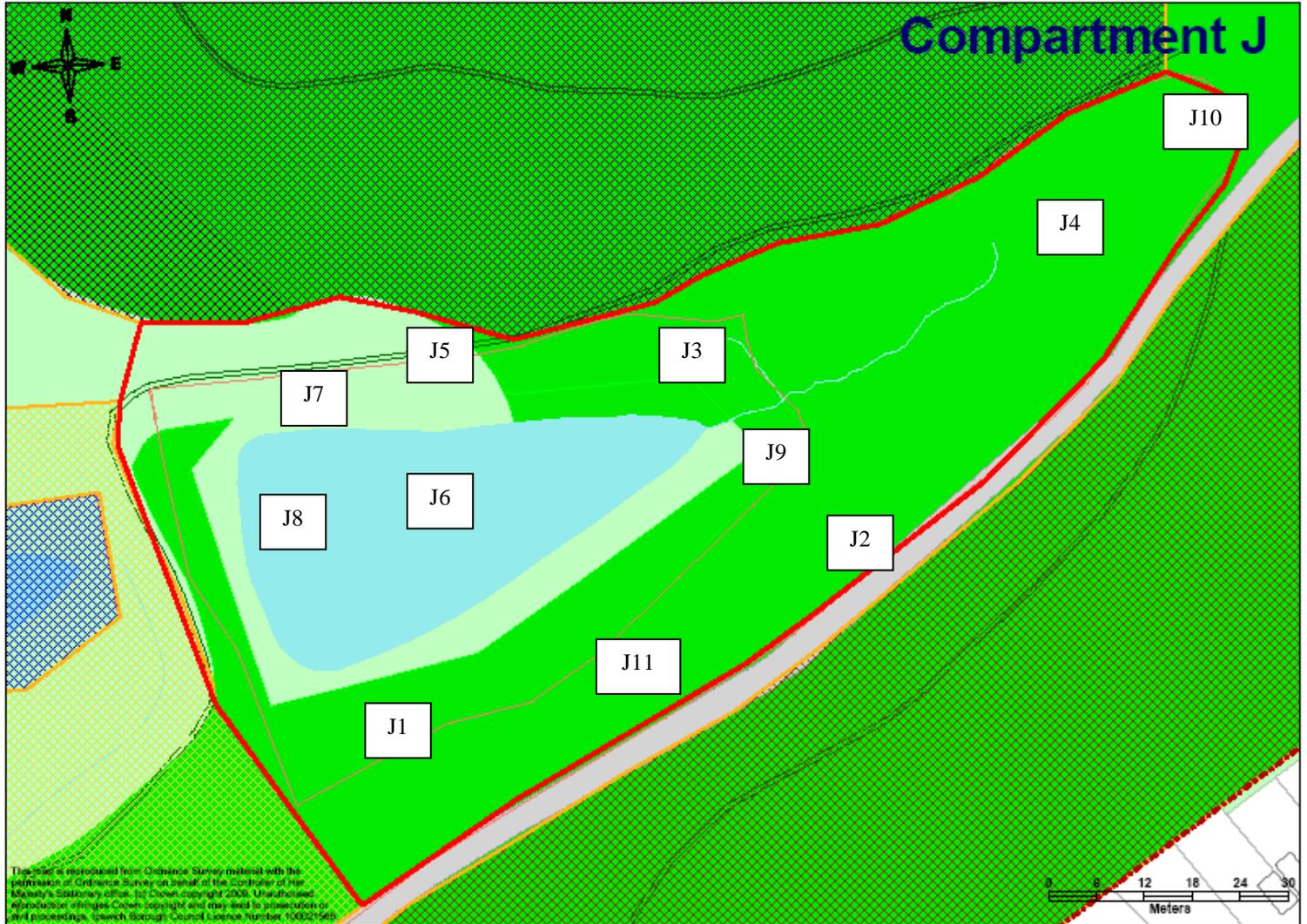
J.5.3 The pond itself is an important wildlife feature as it is spring fed and the water is unpolluted. The amount of water birds observed in recent weeks (Snipe, Water Rail, Grey Heron, Little Egret and Kingfisher) shows just how valuable a habitat the pond is for birds. Two large Ash trees that have significant storm damage are more than likely to house roosting bats whilst also providing habitat for Woodpeckers, Tawny Owl and Treecreepers.

J.6 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
J1	Remove Rhododendron	Rangers	Winter	2
J2	Remove Bamboo from Nacton Road path boundary	GM/Rangers	Winter	2
J3	Coppice and treat Sycamore	Rangers	Winter	3
J4	Targeted coppicing of Beech, Elder and Ash	Rangers	Winter	1

J5	Cut Bramble and coppice willow inside fence of pond next to Brimstone alley	Rangers	Winter	2
J6	Desilt/dredge pond		Late Autumn/	3
J7	Cut and rake grassland	Rangers	Autumn	Annually
J8	Remove 75% of fallen trees from pond	GM / Rangers	Winter	2-3
J9	Plant up with Blackthorn and add to existing log piles to restrict access to south side of pond	Rangers	Winter	2-3
J10	Install rustic chestnut fencing from top of slope down to Brimstone Alley	External Contractor	Any	1-2
J11	Cut bramble on bank on rotation, approx one quarter per annum.	Rangers	Autumn / winter	Annually
J12	Treat any growth of Japanese Knotweed	GM	Spring / summer	Annually

Map



Compartment K	Wetland garden stream and environs
Total area	0.6ha (5594 m ²)
Grid ref	TM1771043462
Designations	County Wildlife Site & Conservation Area, RIGS
Written by	Matt Berry & Joe Underwood
Date	January 2010

K.1 Management priorities & long-term vision

- K.1.1 The ecological priorities for compartment K can be split into four main areas. The first priority is to manage the wetland stream appropriately. The stream was dug out in 2009 and will need digging out again every five to seven years. Best practice would be to dredge a small section of the stream each year to prevent too much disturbance to fresh water invertebrates and mammals.
- K.1.2 The wet grassland is also an important component of the mosaic of habitats found in compartment K. The best practice for cutting wet grassland is to cut and rake off an area (no more than 80%) at the end of summer between August and October. By leaving a percentage of the grassland uncut it enables invertebrates to over winter and also provides cover and food for birds and mammals.
- K.1.3 The other grassland will also need managing with regard to the wildlife it provides habitat for. The best method again is to cut the meadow (no more than 80%) and rake of the cuttings at the end of the growing season (usually September or October). This will ensure that all species using the meadow can complete their life cycles. Care should be taken to ensure that the most floristically diverse area is left uncut. This will provide a good source of seed that can move into the open area and is likely to support the highest number of invertebrates.
- K.1.4 The long-term vision is to maintain the open water habitat of the stream and manage wet meadow habitat appropriately.

K.2 Area description

- K.2.1 Compartment K lies in the valley to the west and southwest of pond one (compartment J). The area contains mature trees in the form of Pine, Holm Oak, Beech and Alder. The wetland stream and path are situated within the compartment and pond two is close. This helps to maintain an area of wet grassland to the north of pond two that contains some interesting and not so common plants.
- K.2.2 To the south of pond two there is an area of meadow that is usually dry but has been known to flood in wet winters. There is also a great deal of Bamboo in the compartment that straddles the eastern boundary with compartment J. There is an

overflow pipe from the leaf yard that distributes water down the valley on the eastern boundary. This helps to support a wetland community that includes willow herb and other species that prefer damper conditions.

K.3 Adjacent land use

K.3.1 Along the entire eastern boundary of compartment K lies pond one and the wetland stream path with its associated secondary woodland. To the west there is the main drive and an area of short grass leading down into the valley. To the north is short grass with a large mature Copper Beech, a significant feature tree. To the south and southwest is the tarmac path that leads to the Nacton Road entrance.

K.4 Possible threats

- Fly tipping from leaf yard
- Poor grassland and tree management
- Encroachment of Bamboo onto sensitive grassland areas
- Pollution of wetland stream

K.5 Ecological evaluation

K.5.1 Within the boundary of compartment K is the wetland stream. This is of ecological importance as it provides habitat for a number of insects such as Dragonflies and Damselflies as well as birds such as Grey Wagtail and Water rail. Mammals likely to use the stream include Water Shrew and Bank Vole the first of which being in decline and fairly uncommon.

K.5.2 There is an area of wet grassland to the north of pond two that supports a variety of species. For example, *Cardamine pratensis* (Cuckoo flower) that provides areas for Orange-tip butterflies to lay their eggs, enabling them to have a stable population in the park. This area of wet grassland is also known to support a good population of common frogs in late summer. The large amount of invertebrates the wet grassland supports is obviously drawing the frogs in from nearby ponds.

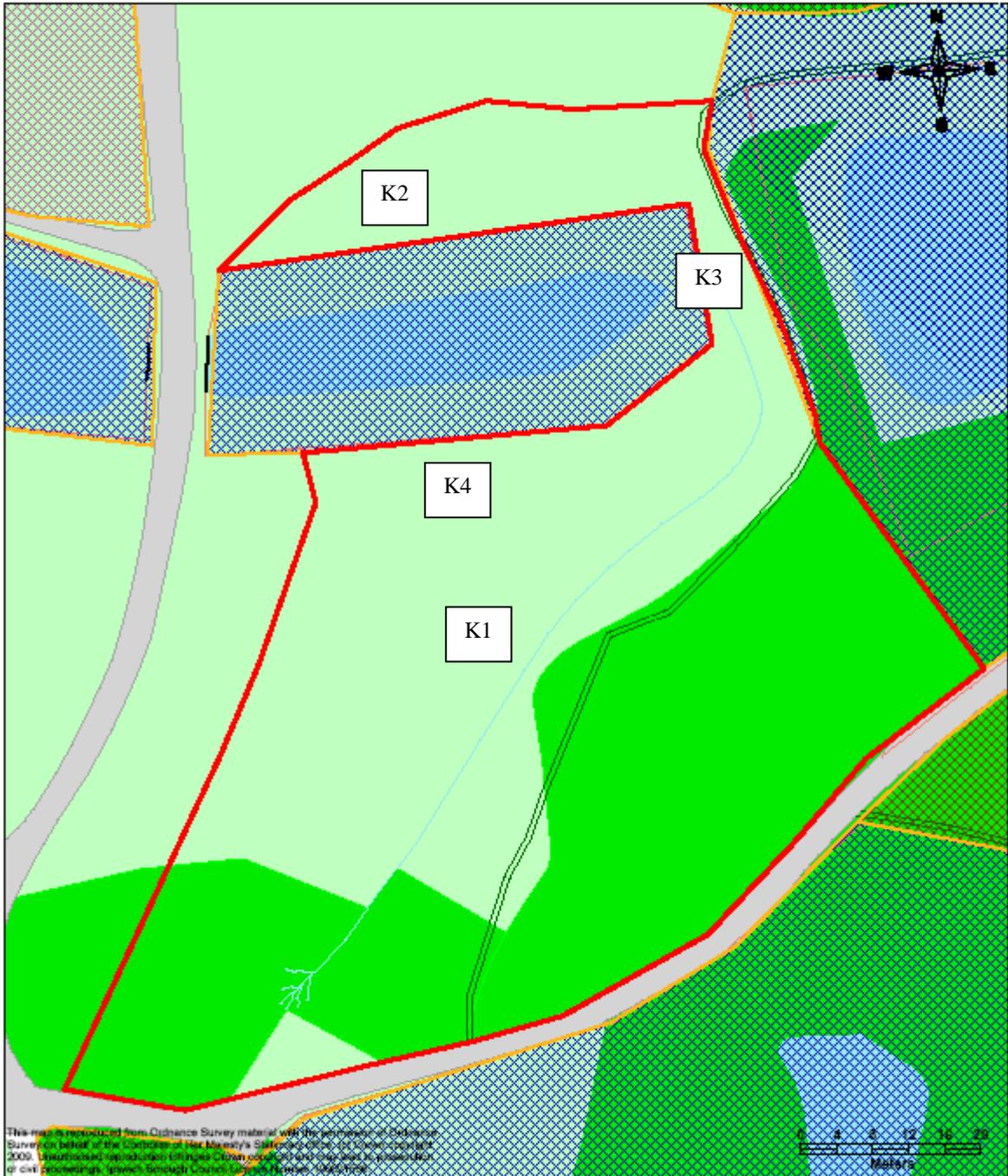
K.5.3 The section of grassland to the south of pond two also provides valuable habitat for a wide range of species. Common shrews that use the thatch layer as cover from predators whilst finding food regularly use it, as do Field Voles. The rich composition of grassland also offers sanctuary for many invertebrates and butterflies such as Common Blue, Meadow Brown, Gatekeeper, Small Tortoiseshell, Painted Lady, Red Admiral, Peacock and Comma - all been recorded in this area. It is a significant location for *Lotus pedunculatus* (Greater Bird's-foot-trefoil), which is able to compete with the tall grass species and provides valuable nectar and possible larval food plants for several butterfly species.

K.6 Management prescriptions

Ref Number	Prescription	Staff resources	Season	Year(s)
K1	Remove the majority of the bamboo	GM	Winter	2
K2	Cut and rake wet grassland	Rangers	Autumn / winter	Annually
K3	Coppice Alder & Beech	Rangers	Autumn / winter	3
K4	Cut and rake drier grassland	Rangers	Autumn / winter	Annually
K5	Relocate the large pile of wood and debris currently located at the southern end of the stream to improve the views and entrance to the area.	GM	Winter	1

Map

Compartment K



Compartment L	Pond Two
Total area	0.1ha (1189 m ²)
Grid ref	TM1769543495
Designations	County Wildlife Site
Written by	Matt Berry & Joe Underwood
Date	January 2010

L.1 Management priorities & long-term vision

- L.1.1 The area forms part of a much larger watercourse in the Park that is managed primarily for nature conservation. Grouped up as a package the ponds are very valuable due to the diversity of habitat and the extensive size of open water when added together. Pond two is one of the smallest out of all the ponds in Holywells Park but should not be seen as any less valuable because of its size.
- L.1.2 As previously stated, the wet grassland surrounding the pond is of high ecological value. It has a range of flora that if managed correctly will increase in number and diversity, and thus provide habitat for many species. Blocks will need to be cut and raked off in rotation to ensure that areas are left for over wintering invertebrates. Log piles and compost heaps could be left to encourage Grass Snake to breed whilst also providing habitat for Frogs, Toads and a wide range of invertebrates.
- L.1.3 The pond itself would benefit from a program of regular silt removal. Common reed has taken over about 75% of the open water in the pond and is in need of knocking back. This job can be easily achieved using the grounds maintenance digger and is vital to maintain open water for breeding amphibians and feeding Kingfishers. The reed left after the dredging operations can be split into four different areas and cut on rotation to prevent a build up of thatch.
- L.1.4 The final management priority for pond two is to ensure that it remains free from too many trees. This will be accomplished by regularly coppicing the solitary Alder to ensure it remains manageable and regularly coppicing the willow that has started working its way in from the east. There is also a single willow pollard that will need cutting back roughly every 3-5 years in order to keep it manageable.
- L.1.5 The long-term aim is two fold. Conserve and enhance biodiversity through appropriate habitat management whilst maintaining the landscape history through the preservation of ponds and other historical features.

L.2 Area description

L.2.1 Pond two (compartment L), is the second in a series of ponds that runs from east to west down the valley in Holywells Park. The pond itself lies in the centre of the compartment and is buffered by wet grassland to the north, south and east. Good views of the compartment can be had from the main footpath that lies to the west of the pond where a historic bridge forms part of the western boundary of the compartment.

L.3 Adjacent land use

L.3.1 To the west of pond two is the main path through the Park and pond three. To the north and south of the compartment is wet grassland that acts as a buffer zone to the pond. Further away are areas of fairly formal parkland with scattered mature trees; leading then into woodland, and slightly further away is the Parks large formal play area.

L.4 Possible threats

- Pollution of watercourse (pond)
- Succession leading to pond suffocating with reeds and drying out
- Invasion of Bamboo to the detriment of native species
- Japanese Knotweed reappearing near pond
- Duck feeding reducing water quality

L.5 Ecological evaluation

L.5.1 Compartment L is made up exclusively of the area fenced off and known as pond two. This consists of a relatively small rectangular pond that is fringed by wet grassland and has common reed encroaching from the eastern end of the pond. The pond itself has a number of trees on its surrounds; these include a pollarded willow, a small Oak, an alder near the footpath and a number of other smaller willows. Strangely, a Copper Beech is also located at the eastern tip of the pond and is quite out of keeping within this wetland setting.

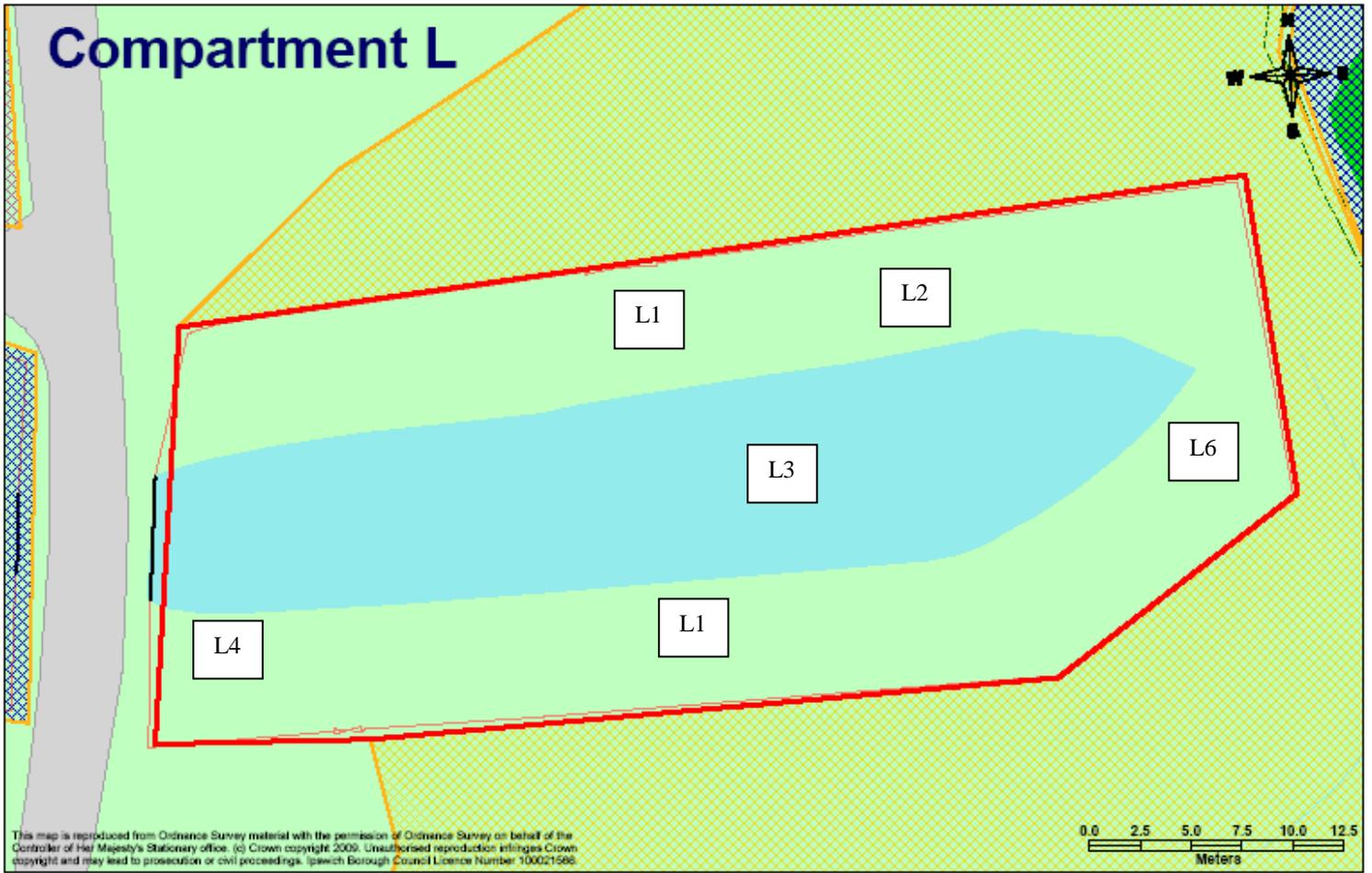
L.5.2 The area of wet grassland inside the fenced off area has quite a diverse range of species. For example *Cardamine pratensis* (Cuckooflower) is present throughout the grassland and provides opportunities for the Orange-tip butterfly to complete its life cycle. Common sedge is also represented and provides good cover and feeding opportunities for amphibians such as frogs and toads.

L.5.3 The pond provides refuge for a wide range of flora and fauna. Kingfishers are regularly seen using the overhanging branches on the Alder as a site from which to fish. Sticklebacks and Minnows are both easily seen in the summer months from the bridge separating ponds two and three. The pond also supports a large number of fresh water invertebrates (refer to species list for complete list of species).

Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
L1	Cut long grass around pond	Rangers	Autumn / winter	Annually
L2	Pollard Willow	Rangers	Autumn / winter	2
L3	Partially dredge pond	GM / Contractor	Autumn / winter	2
L4	Coppice Alder on corner of pond next to bridge	Rangers	Autumn /winter	1
L5	Check & treat any Japanese Knotweed regrowth	GM	Summer	Annually
L6	Remove Bamboo	GM	Autumn / winter	2

Map



Compartment M	Play Area & Moat
Total area	1.9ha (18818 m ²)
Grid ref	TM1759543594
Designations	County Wildlife Site, Conservation Area
Written by	Matt Berry & Joe Underwood
Date	April 2010

M.1 Management priorities & long-term vision

- Surveys to ascertain flora and fauna species
- Maintain trees to screen the play area from the majority of the surrounding areas
- Dredge north side of the canal

M.1 The long-term aim is to have a moat that is also reasonably open and with a sunny aspect, thus maintaining a healthy plant populated water body that can provide a home to a diverse range of species.

M.2 Area description

M.2.1 The moat is a horseshoe shaped body of water that wraps around a central plateau of short mown grass; upon which is situated the Parks play area. It is in a central position and draws large crowds of people, particularly during the summer. The moat itself is not heavily disturbed due to tree and scrub cover and some steep sides that deter most people from exploring into the wilder areas.

M.3 Adjacent land use

M.3.1 The area is surrounded on most sides by open areas of the parkland core, with a mix of short mown grass and scattered trees. The south side of the moat joins pond 4 and the necklace of ponds that dissect the centre of the site.

M.4 Possible threats

- Wildlife disturbance from increased use and access
- Litter from nearby play area
- Water pollution, including from water play facility (e.g. cleaning detergents)

M.5 Ecological evaluation

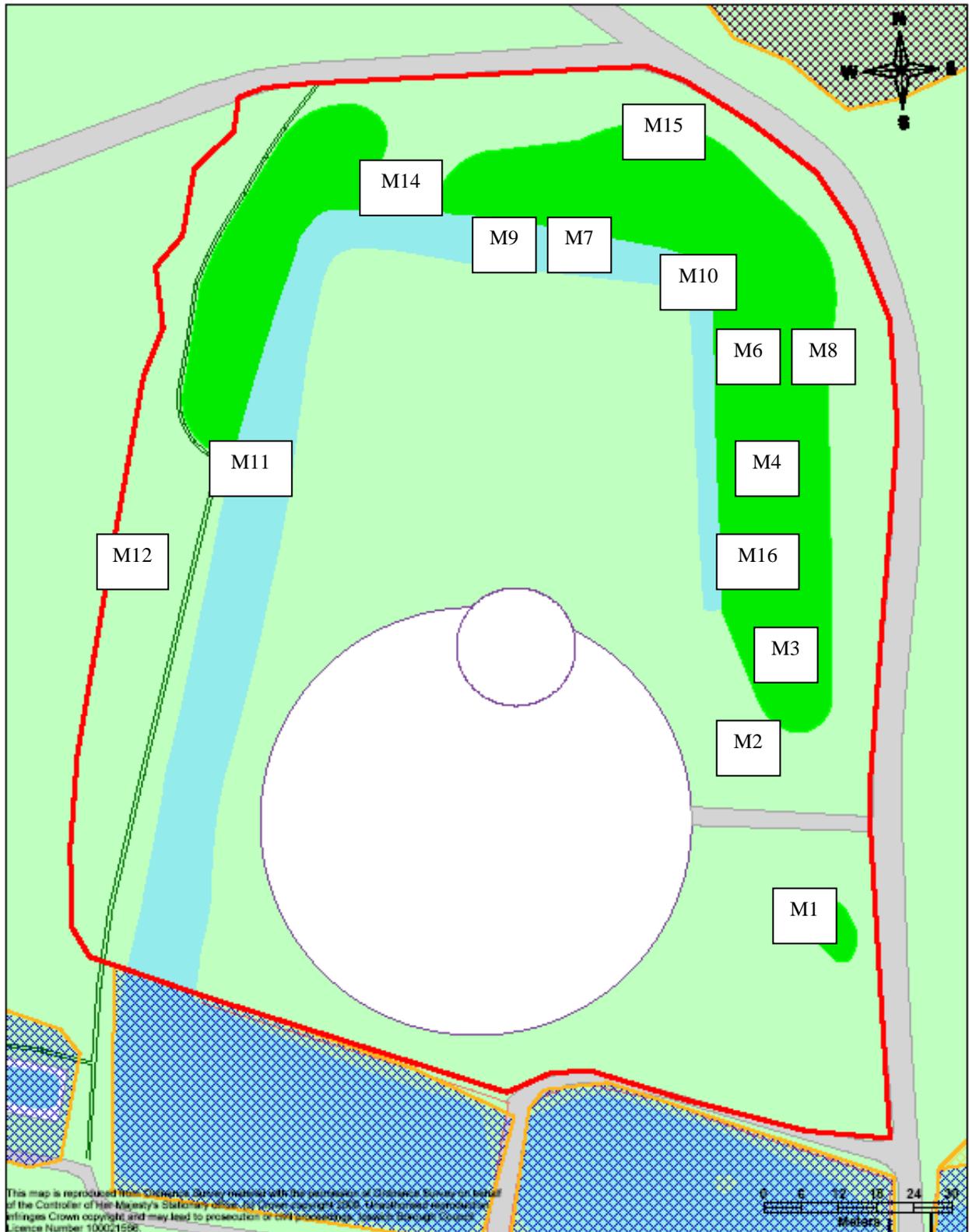
- M.5.1 Water shrew has been recorded in the moat, prior to some dredging work that took place approximately 2 years ago. However, one side of the moat (north) was left untouched to minimise disturbance but it is not known if the shrews are still frequenting the location.
- M.5.2 The dredging has greatly increased the areas of open water and provided opportunities for aquatic life to establish. Small fish have colonised and as Kingfishers are often seen in the area they are undoubtedly a food source for them. As the work was only done recently it has taken time to heal over and for new species to be identified that have come in, and a detailed survey would be beneficial during the next 1-2 years.
- M.5.3 There is an interesting area of spring fed saturated wet ground on the eastern side of the moat. A survey here would also be of value to ascertain plant and other species present.
- M.5.4 The trees that line the edges of the moat provide an excellent wildlife and landscape feature, and act as a screen to the man made play area that would otherwise stand out in such a way that would be to the detriment of the character of the Park. Therefore, a large proportion of the trees should be retained and managed carefully with this in mind. A small number of Sycamores could be removed to benefit native wildlife, with consideration given to replanting with native species such as Ash or Alder that associate well with waterscapes.
- M.5.5 The area of Bamboo on the south side of the compartment should be either retained or gradually replaced with dense native scrub (e.g. Blackthorn) to maintain the screening effect and protection from disturbance to the Kingfishers that are often present on the adjoining pond.
- M.5.6 The east side of the moat would benefit from a dam / weir on its northern most point to maintain a higher level of water.

M.6 Management prescriptions

Ref Number	Prescription	Staff resources	Season	Year(s)
M1	Remove young Holm Oak and Rhododendrons, and coppice Hazel next to play area path.	Rangers / GM	Autumn / winter	1
M2	Coppice 3 Goat Willow	Rangers	Autumn / winter	1
M3	Remove bamboo	GM	Autumn / winter	1-2
M4	Remove 2 dead conifers	GM / Rangers	Autumn / winter	1
M5	Survey flora and fauna	Rangers	Spring / summer	2
M6	Coppice / brushcut to maintain open wetland habitat	Rangers	Autumn / winter	2
M7	Coppice trees in preparation for dredging in future.	Rangers	Autumn / winter	2
M8	Remove 3 Rhododendrons	GM / Rangers	Autumn / winter	1
M9	Dredge north side of moat	External contractor	Autumn / winter	2-5
M10	Construct dam / weir to maintain higher water levels on east side of moat	External contractor	Autumn	2-5
M11	Remove mature Sycamore from moat edge and replant with native scrub species	Arbs	Autumn / winter	2-3
M12	Cut wildflower margin on west side, leaving a different 30% uncut over winter each year	GM	Autumn	Annually
M13	Install notice board at play area entrance	IBC / FOHP	Any	1
M14	Remove Sycamore x 3 from entrance to viewing platform & pollard Ash tree in centre of platform.	Arborists	Autumn / winter	1
M15	Remove Sycamore x 2 from behind Ash trees planted along main path	Arborists	Autumn / winter	1
M16	Remove Sycamore from moat edge near pump house	Arborists	Autumn / winter	1-2

Map

Compartment M



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Compartment N	Pond three
Total area	0.15ha (1435 m ²)
Grid ref	TM1762843499
Designations	County Wildlife Site & Conservation Area
Written by	Matt Berry & Joe Underwood
Date	January 2010

N.1 Management priorities & long-term vision

- N.1.1 The area forms part of a much larger watercourse in the park that is managed primarily for nature conservation. Grouped up as a package these ponds are very valuable due to the diversity of habitat and the extensive size of open water when added together.
- N.1.2 The main priority for pond three is to improve the water quality that is currently poor due to duck feeding. The general public tend to feed the ducks more on pond three than anywhere else in the park due to close proximity to the play area and the presence of the duck house on the island. It would be good to remove the duck house and install interpretation to explain about the negative effects of feeding ducks. Rats are often seen on the edges of pond three feeding on left over bread and the pond also has the lowest diversity of freshwater invertebrates due to the poor water quality.
- N.1.3 The grassland will need cutting on a block rotation to ensure that areas are left for over wintering invertebrates. Care should be taken to leave islands that have the best mixture of species as these will then seed out into the cut areas and increase floristic diversity. Swathes of long grass could also be left bordering the pond to provide cover for wildlife entering and exiting the pond (which would complement the re-landscaping of the pond edge on the south side). All work should be completed in autumn to ensure species can complete life cycles.
- N.1.4 The bramble will also need active management to maintain its benefits to wildlife whilst ensuring it keeps to a manageable height with enough visibility to the pond. Appropriate management will be required to ensure that the bramble does not swamp the areas of wet grassland around the pond. Due to this fact the bramble will need cutting back every two or three years. This work will need to be undertaken in December or January, as this is the least disturbing time for the wildlife that the bramble supports.
- N.1.5 The scattered trees bordering pond three will need managing with the ecology of the pond in mind. Special care should be taken to make sure there's not too many trees established on the southern bank. These trees will not only drop lots of leaves in the pond making dredging operations needed more frequently but also block sunlight that is needed by freshwater invertebrates such as Dragonflies and Damselflies.

N.1.6 The long-term aim is two fold. Conserve and enhance biodiversity through appropriate habitat management whilst maintaining the landscape history through the preservation of ponds and other historical features.

N.2 Area description

N.2.1 Pond three (compartment N), is the third of a series of ponds that runs from east to west down the valley in Holywells Park. The pond itself lies in the centre of the compartment and is fed by a pipe under the main path from pond two. The pond has an island with a shelter that is regularly used by ducks in the form of Mallards. A narrow fringe of grassland mixed with Bramble is present in the compartment, alongside typical wetland trees such as Willow and Alder.

N.3 Adjacent land use

N.3.1 The north of pond three is fringed with seasonally wet formal grassland and the play area is situated beyond it, inside its own fenced compound. To the east of pond three is the main path and pond two. To the west of pond three is another concrete path that splits ponds three and four and to the south of pond three is formal grassland.

N.4 Possible threats

- Duck feeding reducing water quality
- Disturbance to wildlife from dogs (if fence is removed)
- Poor tree management leading to heavily silted pond
- Poor grassland management reducing species richness
- Bamboo spreading to detriment of native species

N.5 Ecological evaluation

N.5.1 The pond consists of open water and a small island. It also has other terrestrial habitat in the form of wet grassland, bramble scrub and scattered trees. The main group of trees are situated to the east and west of the compartment and are made up of Alder (Italian) and Ash.

N.5.2 The area of grassland / Bramble acts as a buffer to the pond and is situated on its northern and southern fringes. The grassland has a mix of species including common sedge and rosebay willowherb. The grassland provides a wildlife corridor that gives good cover for small mammals and amphibians as well as providing some nectaring opportunities for invertebrates.

N.5.3 The bramble is an important habitat in its own right. The bramble provides cover for a variety of different bird species and has been a known nesting site for the long tailed tit. Long tailed tits like to nest in bramble near or over water so the bramble surrounding pond three is ideal. Various butterflies have been seen getting nectar from the flowers on the south side of the pond as this area receives the most

sunlight. The blackberry crop in late summer is also a valuable source of food for summer migrant birds and members of the thrush family.

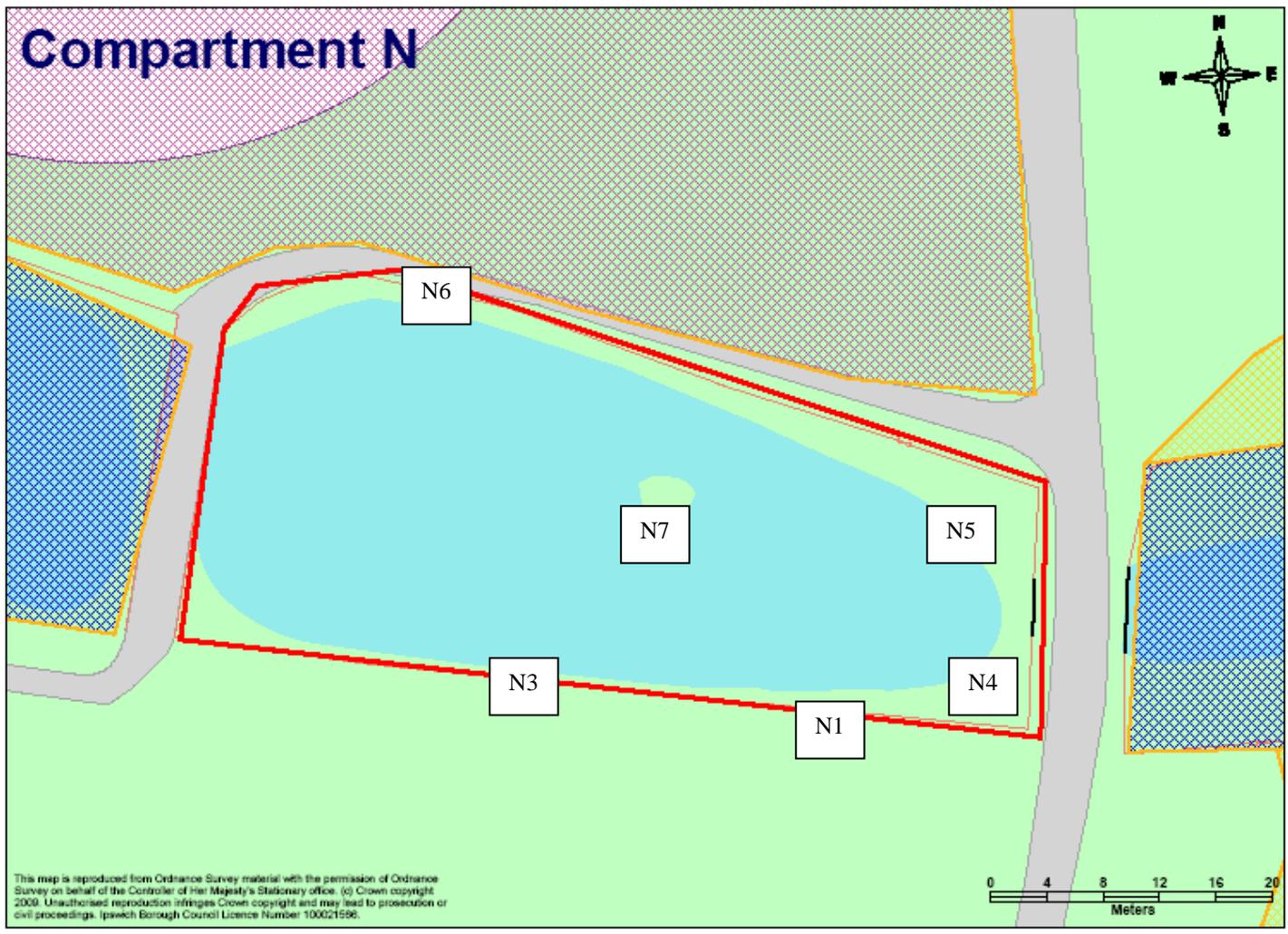
N.5.4 The trees around pond three also provide habitat for a wide range of species. Siskin and Redpoll are known to frequent the Alder trees in winter as they feed on the seed. Kingfishers are regularly seen perching and fishing from branches that overhang the pond. The mix of tree species also provides a base for ivy to become established. Ivy should be retained where possible as it supports a large variety of invertebrates including the red data book 1 Golden Hoverfly.

N.5.5 The pond itself is fairly poor for wildlife in its current state and would benefit greatly from being dredged. The water quality is poor due to the amount of bread fed to ducks and could be improved by educating the public not to feed the ducks. If feasible it would be beneficial to aim to establish some marginal and deeper aquatic vegetation. To aid this the sheer faced edges of the pond could be softened and extended on the southern side of the pond – if the current metal fencing is removed.

N.6 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
N1	Remove fence	GM	Any	1
N2	Cut & rake long grass / bramble	Rangers	Autumn / winter	Annually
N3	Dredge pond and re-profile south bank to gentle slope	Contractor	Autumn / winter	2-5
N4	Remove Bamboo and selection of trees	GM	Autumn / winter	2
N5	Prune Oak tree next to bridge	Arborists	Autumn / winter	1-2
N6	Remove Sycamore tree on north side	Arborists / Rangers	Autumn / winter	1-2
N7	Remove wooden duck house	Rangers / GM	Autumn / winter	1
N8	Maintain views from bridge by selective tree pruning / felling and Ivy removal.	Rangers / Arbs / GM	Autumn / winter	1,5
N9	Plant native pond plants such as Yellow Flag, Water Lily, and Water Hawthorne to improve water quality and biodiversity.	Rangers / GM	Spring	2,3

Map



Compartment O	Pond four
Total area	0.2 ha (1861 m ²)
Grid ref	TM1756143511
Designations	County Wildlife Site & Conservation Area
Written by	Matt Berry & Joe Underwood
Date	January 2010

O.1 Ecological management priorities & long-term vision

O.1.1 The long-term aim is two fold. Conserve and enhance biodiversity through appropriate habitat management whilst maintaining the landscape history through the preservation of the pond.

O.2 Area description

O.2.1 Compartment O (pond 4), is the fourth of a series of ponds that sweep through the valley in Holywells Park. The pond is situated to the west of pond three and good views can be had from the large area of formal grassland to the south. The northern bank of the pond is fringed with trees and a large amount of bamboo.

O.2.2 The pond provides a very valuable corridor as it links up with the newly dredged moat area. A very small island is situated in the middle of pond four that has an Alder tree growing through the middle of it. The island provides good habitat as it is safe from disturbance and provides ideal perches for Kingfisher. There is also a clump of reed working in from the northeastern corner.

O.3 Adjacent land use

O.3.1 Along the entire northern boundary of compartment O is what could be described as a thin section of secondary woodland, with the play area in close proximity behind it. To the west of the compartment is a newly installed footpath that offers good views of both ponds four and five. To the south of pond four lays a vast expanse of formal grassland and to the east is a concreted path that runs between ponds three and four.

O.4 Possible threats

- Pollution of the watercourse (pond)
- Expansion of bamboo to the detriment of native species
- Japanese Knotweed reappearing near pond
- Duck feeding reducing water quality
- Disturbance to wildlife
- Poor/ inappropriate tree and pond management

- Bank collapse on western side of pond and adjoining moat

O.5 Ecological evaluation

- O.5.1 Pond four has a medium sized area of open water (fourth biggest in Park) and has quite a large amount of tree cover on its surrounds. The northern banks on the pond are fringed with secondary woodland with the predominant species being Alder, Ash and Elder. This provides good structure for nesting passerines and cover for mammals such as foxes.
- O.5.2 The pond is fringed by Bramble and a large Oak tree on its western bank. The bramble is positioned in direct sunlight so is an attractive proposition for a wide variety of insects. Long tailed tits have nested in the bramble as it overhangs the pond and offers a safe nesting opportunity. The large Oak has evidence of woodpecker activity and is now becoming an important asset to wildlife.
- O.5.3 There is a small amount of grassland that borders the southern edge of pond four. This is fairly poor in terms of species richness and is regularly disturbed by dogs entering and exiting the pond. Even with the heavy levels of disturbance the grassland still provides good habitat for invertebrates and shelter for amphibians
- O.5.4 Efforts have been made to try and establish emergent and marginal vegetation in pond four with mixed success. A wide variety of species were planted with about 50% still in situ with the others having been trampled or pulled up. The pond is much richer in submerged vegetation after recent dredging has been completed and there has been a visible increase in the number of small fish (fry).
- O.5.5 The area forms part of a much larger watercourse in the Park that is managed primarily for nature conservation. Grouped up as a package the ponds are very valuable due to the diversity of habitat and the extensive size of open water when added together. Pond four is the fourth largest pond in the Park and is very rich in terms of wildlife due to the water quality.
- O.5.6 The Willow Emerald Damselfly has recently been recorded breeding in pond four. This damselfly is a relative newcomer to Suffolk and is spreading north year on year. The Damselfly lays its eggs in the branches of Willow or Alder so it is essential to leave branches of these species overhanging the water to ensure its long-term survival.
- O.5.7 The secondary woodland on the northern banks of pond four could be easily improved for wildlife with the introduction of a coppice regime. This would benefit a wide variety of wildlife by improving the structure of the woodland edge on a south facing bank good for insects. As previously stated there is a large amount of bamboo that could be removed to provide room for native trees and scrub. If done this should take place gradually as the screen the bamboo provides between the pond and the play area is valuable for wildlife, especially kingfishers that regularly use that side of the pond to fish from.
- O.5.8 The bramble of the western edge of pond four will also need to be managed appropriately to ensure its benefit to wildlife is maximised. As the bramble is in full

sun it provides a good nectar source for insects with lots of butterflies seen in the area. The bramble will need knocking back every two or three years to make sure it does not swamp the path splitting ponds four and five. This task should be completed in December or January when the impact on wildlife is least significant.

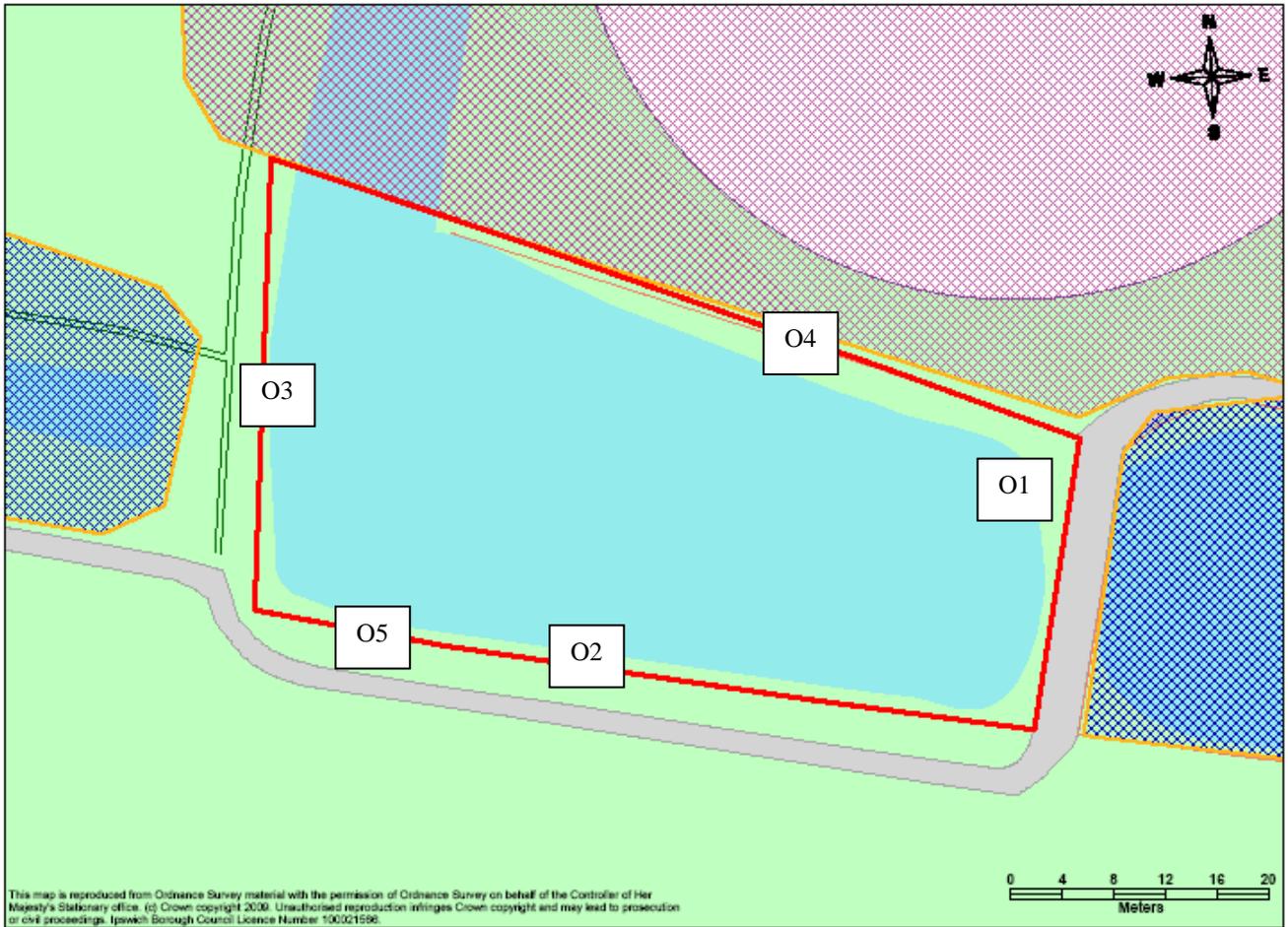
- O.5.9 The ecology of the pond is currently in good order. The pond was dredged recently and this has greatly improved the water quality. Freshwater invertebrates have become a lot more numerous and there has been a huge increase in the number of small fish that provide food for Kingfishers, Herons and Little Egret. Care should be taken to prevent too much tree cover becoming established on the southern bank, as this will degrade the water quality in the pond.

O.6 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
O1	Remove Holm Oak	Arborists	Autumn / Winter	2
O2	Thin Alders	Rangers/Arborists	Autumn / winter	3-5
O3	Cut bramble to desired height	Rangers / GM	Autumn / Winter	3,5
O4	Selectively coppice trees and remove some Bamboo (replant with Blackthorn).	Rangers	Autumn / winter	2,5
O5	Cut and rake pond edge	Rangers	Autumn / winter	Annually

Map

Compartment O



Compartment P	Pond five
Total area	0.1 ha (1044 m ²)
Grid ref	TM1750643517
Designations	County Wildlife Site & Conservation Area
Written by	Matt Berry & Joe Underwood
Date	March 2010

P.1 Management priorities & long-term vision

P.1.1 The long-term aim is two fold. Conserve and enhance biodiversity through appropriate habitat management whilst maintaining the landscape history through the preservation of the pond.

P.2 Area description

P.2.1 Compartment P (pond 5), is the fifth in a series of ponds that sweeps through the valley in Holywells Park. Prior to 2008 it was a concrete lined paddling pool. This has since been removed and the pond landscaped back into its historic form, a roughly rectangular 'finger' shape. It is currently very shallow and more akin to a stream than a pond, with wide vegetated banks on all sides. The pond sits in quite an open part of the park and as such it is clearly visible from quite a distance.

P.3 Adjacent land use

P.3.1 To the north there is a large area of formal grassland that was once used for cricket and is now used for informal recreation, wildlife watching and so on. To the south is more of the same formal grassland, albeit interspersed with a number of trees, including one significant veteran Oak. To the east is pond four and the moat. Finally, to the west is pond 6 – which this pond feeds into.

P.4 Possible threats

- Pollution of the watercourse (pond)
- Japanese Knotweed reappearing near pond
- Disturbance to wildlife from dogs
- Poor/ inappropriate management

P.5 Ecological evaluation

P.5.1 The wide informal edges of the pond are a valuable resource for wildlife and offer shelter and food to a wide range of birds, invertebrate, reptiles and amphibians. Grass Snake, Grey Wagtail, and Snipe have all been recorded in the area. Following the landscaping back into an informal pond the vegetation has been allowed to

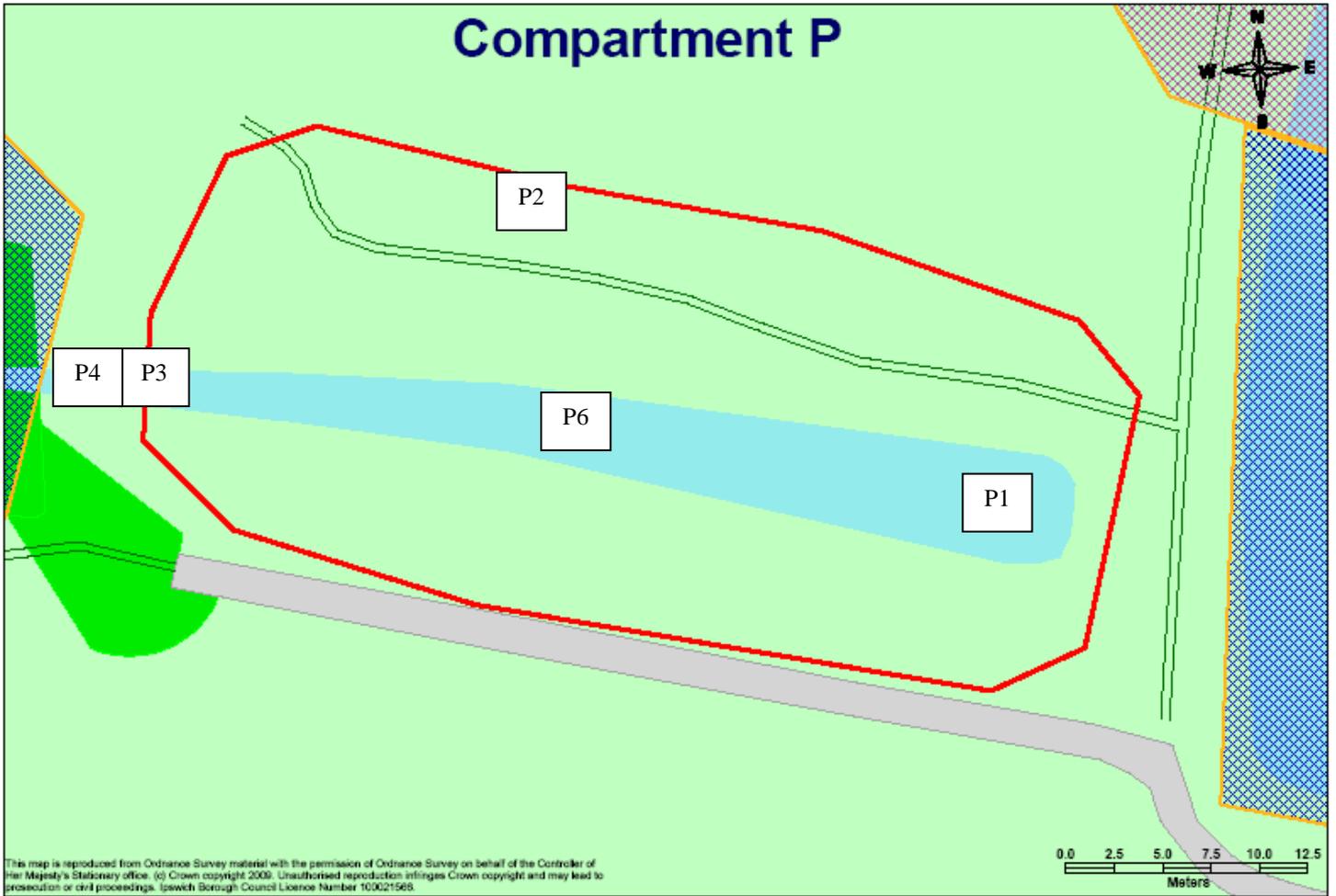
colonise naturally and species of note include Common Knapweed and Birds-foot trefoil, both valuable nectar sources to invertebrates. The amount of Reedmace in the pond has become undesirable and steps should be taken to remove this intrusive and dominant species.

- P.5.2 Significant sunlit nettle patches have produced sightings of a large number of larval nests for nymphalids, particularly Small Tortoiseshell and Peacock. The Small Tortoiseshell has suffered population crashes in recent years and so suitable nettle beds are an important resource. These nettle beds should be cut at the appropriate time of year to ensure fresh young growth – attractive to laying females. This type of management will also ensure the nettles remain reasonably small and less likely to cause a problem to people.
- P.5.3 The banks of the pond should be cut and raked annually to ensure trees don't take over from the more desirable flowering plants. No more than 80% should be cut per year, leaving uncut islands for over wintering invertebrates and shelter for birds.
- P.5.4 Self sown Alder and Willow spp have repeatedly appeared around the pond and a small number could be allowed to grow to a size suitable to coppice. This would retain the open views in this part of the Park, whilst enhancing biodiversity and linkages to other nearby and similar habitat (e.g. pond six). Alternatively some of the saplings could be dug up and replanted, for example next to pond 6 to ensure the continuity of Alder Carr habitat.
- P.5.5 The pond itself could have an adjustable weir system installed on the western end where the pond joins pond six. This would enable to water level to be controlled with a higher level in spring and summer to suit amphibians but not predatory fish and a lower level in winter that suits birds such as Wagtails and Snipe.

P.6 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
P1	Cut and rake meadow around banks of pond (max 80%)	Rangers	Autumn / winter	Annually
P2	Cut and rake selected area of nettle beds on north side of pond	Rangers	As appropriate in spring / summer	Annually
P3	Install weir to control water levels	Contractor	Autumn	2
P4	Install bridge to control public access between ponds	Contractor or Rangers	Autumn	2
P5	Dig up Alder saplings and relocate elsewhere in the park	Rangers	Winter / early spring	2-5
P6	Dig up reedmace from the pond	Rangers	Autumn	2

Map



Compartment Q	Pond six
Total area	0.1 ha (1044 m ²)
Grid ref	TM1744843524
Designations	County Wildlife Site & Conservation Area
Written by	Matt Berry & Joe Underwood
Date	March 2010

Q.1 Management priorities & long-term vision

- Q.1.1 Maintain the Alder Carr habitat and the wild nature of the pond overall. This could be achieved by small scale planting of young Alder trees around the pond edges, as already done on the south side approximately 5 years ago.
- Q.1.2 The long-term aim is two fold. Conserve and enhance biodiversity through appropriate habitat management whilst maintaining the landscape history through the preservation of the pond.

Q.2 Area description

- Q.2.1 Pond six is one of the wildest ponds in the Park, hence it is known by several people as the wilderness pond. The predominant reason for this is the Alder Carr habitat that surrounds the entire pond. At the western end there is the remainder of a formal balustrade bridge that has fallen into disrepair. It provides the main view across the pond.

Q.3 Adjacent land use

- Q.3.1 To the east lies pond 5 and to the west is pond 7, both are directly connected to pond 6 via channels of flowing water. To the north is short mown amenity grassland and to the south is a mixture of long grass meadow and short mown amenity grassland.

Q.4 Possible threats

- Pollution of the watercourse (pond)
- Disturbance to wildlife from dogs
- New generation of Alders not establishing
- Change of management

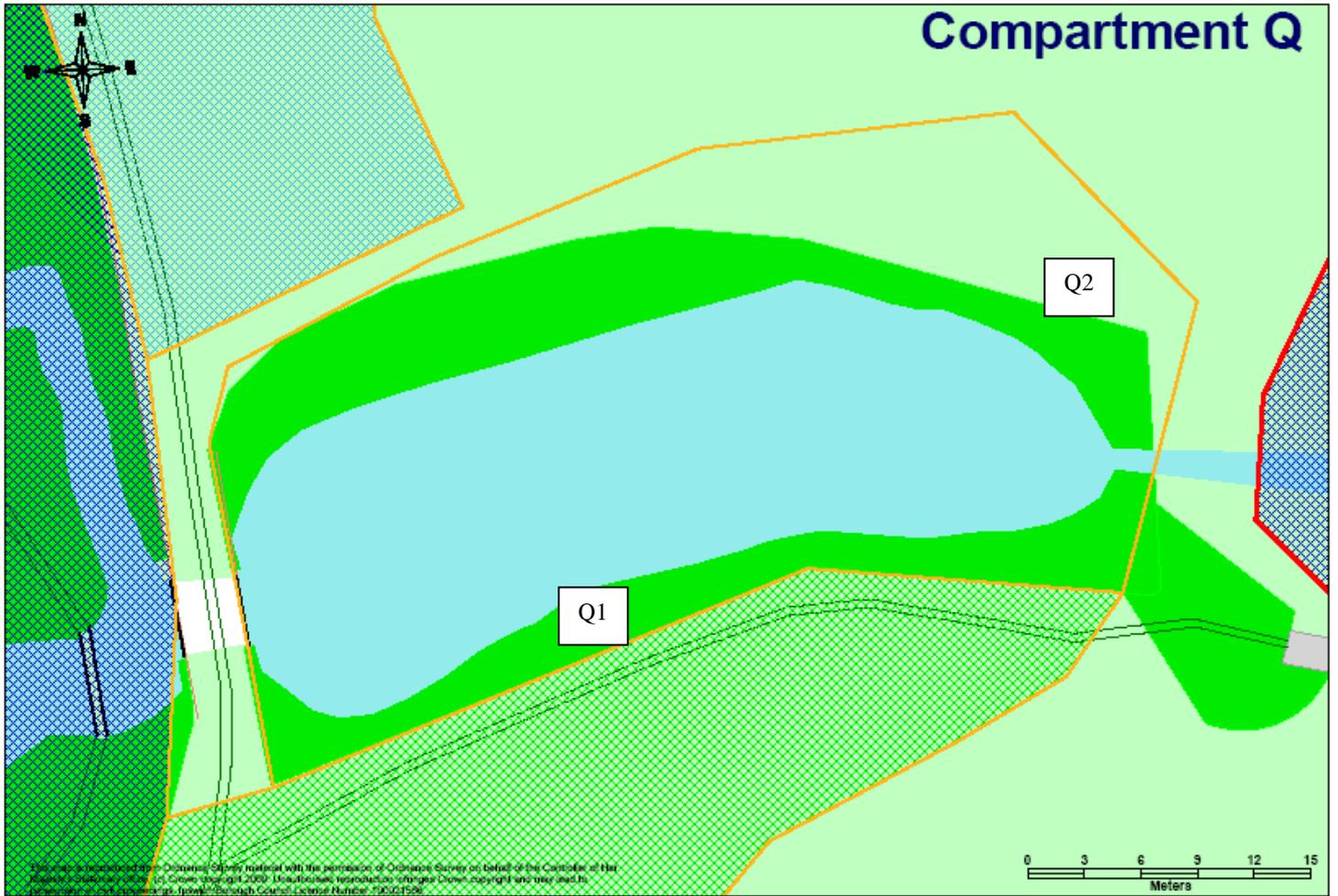
Q.5 Ecological evaluation

- Q.5.1 Alder Carr (or wet woodland) is a Biodiversity Action Plan (BAP) habitat and as such is threatened and protected. Although quite small in size it is the only area of this type of habitat in the Park and supports a diverse range of wildlife, as well as adding value to the landscape diversity and character.

Q.6 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
Q1	Reduce and eventually remove all daffodils from pond edge. Replace with native spring flowering species.	Rangers	Summer	1-3
Q2	Plant Alder saplings to provide replacements for over mature trees	Rangers	Winter	1-3

Map



Compartment R	Pond seven
Total area	0.77 ha (7740 m ²)
Grid ref	TM1737643528
Designations	County Wildlife Site & Conservation Area
Written by	Matt Berry & Joe Underwood
Date	March 2010

R.1 Ecological management priorities & long-term vision

R.1.1 The long-term aim is two fold. Conserve and enhance biodiversity through appropriate habitat management whilst maintaining the landscape history through the preservation of the pond.

R.2 Area description

R.2.1 Pond seven is the largest in the Park. It is roughly rectangular in shape, with a small island in the centre. The pond is surrounded on all sides by either scrub or woodland habitat, with a few open areas that are used for viewing wildlife, pond dipping and illegal fishing.

R.3 Adjacent land use

R.3.1 An industrial estate lies directly to the west of the pond. Over to the east and inside the Park is an open area of short mown amenity grassland. To the north is woodland habitat and pond eight near to Myrtle Road. To the south is the Park canal that adjoins pond seven.

R.4 Possible threats

- Pollution of the watercourse (pond)
- Disturbance to wildlife, particularly from fishing, dogs entering pond, and from people accessing the rear side of the pond

R.5 Ecological evaluation

R.5.1 Since 1987 the pond and surrounding areas have been managed with nature conservation in mind. The pond was dredged approximately at the same time and is currently in a reasonably healthy condition. It would benefit from an increase in native aquatic vegetation, particularly marginal plants

R.6 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
R1	Coppice Elders on island and replace with Blackthorn and Buckthorn	Rangers	Autumn / winter	4
R2	Fence off access to rear of pond	External Contractor	Any	1-2
R3	Repair or replace pond dipping area	Rangers / External Contractor	Any	1-2

Map



Compartment S	Pond eight & environs
Total area	0.91 ha (9131 m ²)
Grid ref	TM1739243642
Designations	County Wildlife Site & Conservation Area
Written by	Matt Berry & Joe Underwood
Date	March 2010

S.1 Management priorities & long-term vision

S.1.1 The long-term aim is two fold. Conserve and enhance biodiversity through appropriate habitat management whilst maintaining the landscape history through the preservation of the pond.

S.2 Area description

S.2.1 This area of the Park forms an integral part of the entrance from Myrtle Road and thus to the overall 'sense of arrival' to Park visitors. The compartment consists of woodland, pond, and meadow habitats. The pond is rather obscured by trees and as such is not easily visible to Park users. Along the eastern side of the compartment there is a linear hedge like feature of Yew trees and in front of that there is a long grass margin that acts as a buffer to the large square short mown grass area. Access is gained through the centre of the compartment via an informal naturally surfaced path, passing the pond and leading to pond seven.

S.3 Adjacent land use

S.3.1 The western side of the compartment forms the boundary of the Park, which is adjoined by industrial units. To the south is pond seven and the rest of the compartment is adjoined to the parkland core, which is mostly short mown grass.

S.4 Possible threats

- Pollution of the watercourse (pond)
- Disturbance to wildlife

S.5 Ecological evaluation

S.5.1 The pond is seasonal and is usually dry during the summer months. This has potential benefit for amphibians that might otherwise be predated on by fish. However, the pond would benefit from some dredging to increase the depth and period of time that the pond holds water for. This may then allow more aquatic vegetation to colonise that would be of benefit to wildlife, e.g. Newt egg laying sites.

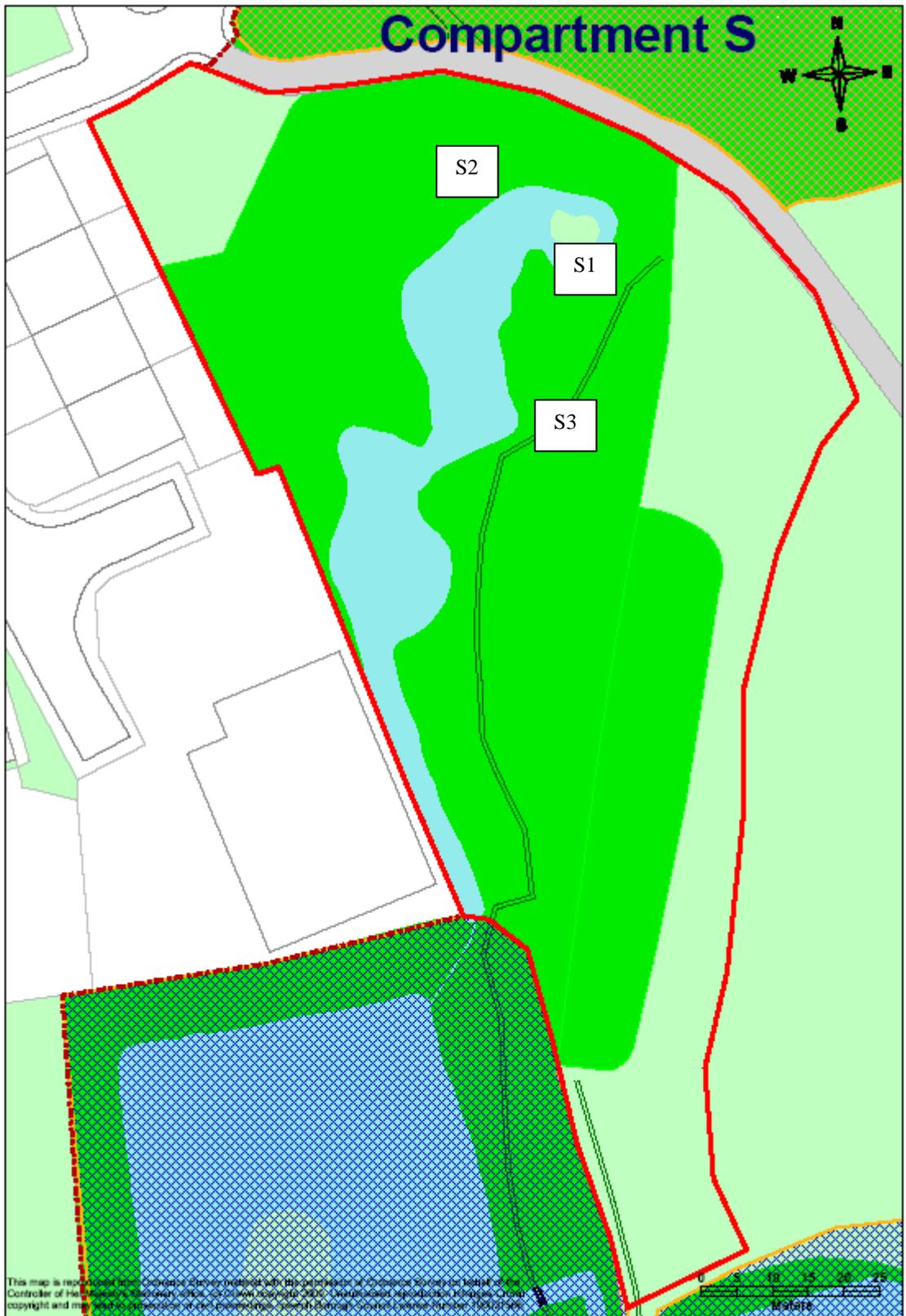
The dredging should not be excessive so as to result in a permanent water body though, as that would allow fish to colonise.

- S.5.2 The pond would also benefit from some moderate tree work around its edges. This could entail coppicing some of the Willows that have grown as maiden trees. The resulting coppice stools would provide extra scrub habitat. Also the increase in light reaching the pond and reduction in leaf drop should ensure the pond maintains open water for longer and doesn't silt up too quickly.

S.6 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
S1	Coppice along edge of pond and coppice Elder on pond island.	Rangers / GM	Winter	1-2
S2	Coppice Willows and other trees on pond edges	Rangers	Autumn / winter	1-2
S3	Cut and clear path edges, top up with woodchip as necessary	GM / Rangers	Any	All

Map



Compartment T	Parkland Core
Total area	0.91 ha (9131 m ²)
Grid ref	N / A
Designations	County Wildlife Site & Conservation Area
Written by	Matt Berry & Joe Underwood
Date	April 2010

T.1 Management priorities & long-term vision

T.1.1 For ecology the main aims are to alter management of various trees; establish the long grass islands around some of the notable trees and retention of lower branches. The long-term vision is to attain equilibrium between the amenity and recreation needs and the ecological needs and desires for enhancement of biodiversity.

T.2 Area description

T.3 This compartment comprises of all the formal areas of the Park that are otherwise not included in any of the other 18 compartments. The predominant landscape is short mown grass, interspersed with trees. The areas are all located within the central part of the site, wrapped around the play area in the middle of the Park. They act as a good buffer and interface between formally managed areas and the informal / wildlife areas – meadow, ponds and woodland.

T.4 Adjacent land use

T.4.1 The rest of the Park (see all 18 compartments).

T.5 Possible threats

- Generation gap of veteran trees if there is a lack of a planting programme
- Inconsistent grassland management of identified wildlife features

T.6 Ecological evaluation

T.6.1 The main features in this type of landscape are the trees, particularly the mature and veteran specimens and / or groups of trees that form small pockets of woodland type habitat. There is veteran English Oak situated next to pond 5 that has had a canopy wide area of grass left to grow long and large heavy machinery is no longer taken within this zone. There is the potential to expand this practice to more mature / veteran trees and it would be of benefit to the trees (reduced ground compaction, branch & trunk damage etc) and would help provide more areas of habitat for invertebrates, feeding birds, fruiting fungi and so on. The use of any chemical treatments should

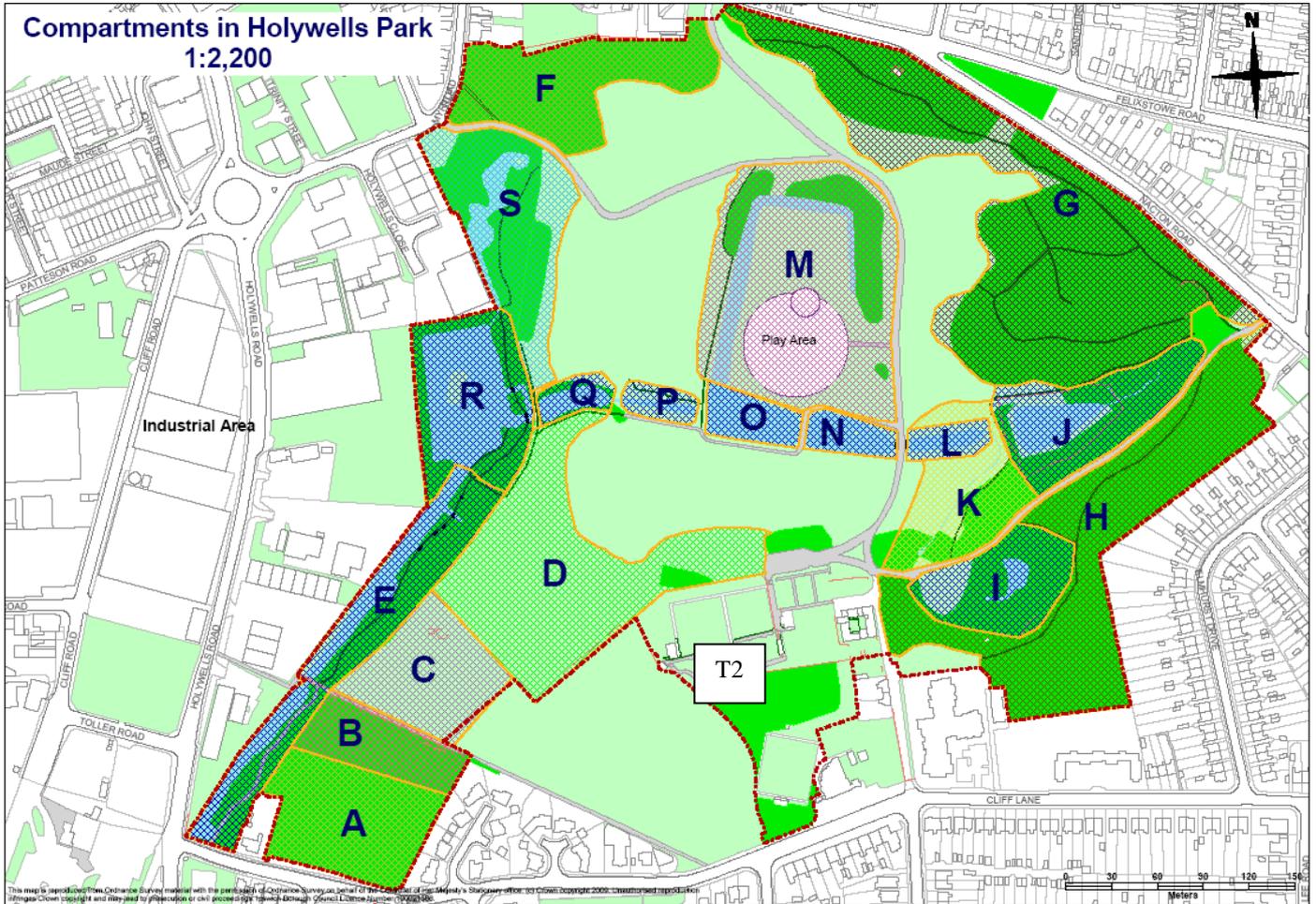
cease in these areas. Furthermore, lower branches of these trees should not be removed without a specific and justifiable reason, i.e. Health & Safety.

T.6.2 The grass bank above the bowls greens has in recent years been identified as a special area of interest for fungi with some notable species recorded such as Parrots Waxcap. Future management should be sensitive to fungi and grass not mown during the fruiting season in autumn. Any use of fungicides, fertilizers or moss treatment should be strictly prohibited.

T.7 Management prescriptions

Ref number	Prescription	Staff resources	Season	Year(s)
T1	Manage long grass areas around a selection of notable and veteran trees	GM / Rangers	ALL	Annually
T2	Maintain grass bank for fungi that are only found in this area of the park	ALL	ALL – grass can still be mown in spring / summer	Annually
T3	Plant replacement native trees, e.g. English Oak	GM	Autumn / winter	When appropriate

Map



5. MONITORING, EVALUATION AND REVIEW

In order to judge whether or not we have arrived at where we want to be a method of monitoring and evaluation needs to be followed. This will take place within an annual review of the entire Park Management Plan document. The wildlife plan will be reviewed in a number of ways:

Annual action plan

These shall be produced annually from the prescriptions in each of the compartment plans. The Wildlife Ranger Team Leader will review performance and successes of these in September of each year, as part of the process for creating the following annual action plan.

Biodiversity Performance Indicators

The Wildlife Ranger Team Leader will monitor the recorded performance on each of these during the aforementioned review procedure in September of each year. This process will inform the management plan on any changes that may be necessary to achieve targets, or indeed to remove targets that are deemed unobtainable.

Review

The plan will be fully updated halfway through the lifespan of the overall Park Management and Maintenance Plan. The deadline for the update will be 31st December 2015.

APPENDICES

1. Species list
2. CWS map & citation

APPENDIX 1 – SPECIES LIST

Appendix 1 - Species List

Species name	Common name	Date	Observer
PLANTS			
<i>Acer campestre</i>	Field maple	07/12/2004	RG
<i>Acer pseudoplatanus</i>	Sycamore	07/02/2004	RG
<i>Achillea millefolium</i>	Yarrow	27/07/2010	JU,CR
<i>Aesculus hippocastanum</i>	Horse chestnut	07/02/2004	RG
<i>Alnus glutinosa</i>	Alder	07/02/2004	RG
<i>Anthriscus sylvestris</i>	Cow parsley	17/04/2004	RG
<i>Arctium lappa</i>	Greater burdock	27/07/2010	JU,CR
<i>Arctium minor</i>	Lesser burdock	27/07/2010	JU,CR
<i>Arum maculatum</i>	Lords and ladies	10/04/2004	RG
<i>Betula pendula</i>	Silver Birch	07/02/2004	RG
<i>Bryonia alba</i>	White byrony	27/07/2010	JU,CR
<i>Calystegia sepium</i>	Hedge bindweed	27/07/2010	JU,CR
<i>Carpinus betulus</i>	Hornbeam	07/02/2004	RG
<i>Castanea sativa</i>	Sweet chestnut	07/02/2004	RG
<i>Centaurea nigra</i>	Black knapweed	27/07/2010	JU,CR
<i>Chamomilla suaveolens</i>	Pineapple may weed	27/07/2010	JU,CR
<i>Chenopodium album</i>	Fat hen	27/07/2010	JU,CR
<i>Chrysanthemum segetum</i>	Corn marigold	13/03/2004	RG
<i>Cirsium arvense</i>	Creeping thistle	27/07/2010	JU,CR
<i>Cirsium vulgare</i>	Spear thistle	27/07/2010	JU,CR
<i>Conyza canadensis</i>	Canadian fleabane	27/07/2010	JU,CR
<i>Cornus sanguinea</i>	Dogwood	07/02/2004	RG
<i>Corylus avellana</i>	Hazel	07/02/2004	RG
<i>Crataegus monogyna</i>	Hawthorn	07/02/2004	RG
<i>Cydonia oblonga</i>	Quince	07/02/2004	RG
<i>Cymbalaria muralis</i>	Ivy leaved toadflax	20/03/2004	RG
<i>Daucus carota</i>	Wild carrot	27/07/2010	JU,CR
<i>Epilobium hirsutum</i>	Great willow herb	27/07/2010	JU,CR
<i>Epilobium pedicellare</i>	Hoary willow herb	27/07/2010	JU,CR
<i>Equisetum arvense</i>	Field horsetail	22/04/2004	RG
<i>Equisetum palustre</i>	Marsh horsetail	17/04/2004	RG
<i>Equisetum telmateia</i>	Great horsetail	04/04/2004	RG
<i>Erophila verna</i>	Common whitlow grass	08/05/2004	RG
<i>Euonymus europaeus</i>	Spindle	07/02/2004	RG
<i>Euphorbia peplus</i>	Petty spurge	08/05/2004	RG
<i>Euphrasia officinalis</i>	Eyebright	08/05/2004	RG
<i>Fagus sylvatica</i>	Beech	07/02/2004	RG
<i>Fagus sylvatica cv. Purpurea</i>	Copper beech	07/02/2004	RG
<i>Frangula alnus</i>	Alder buckthorn	07/02/2004	RG
<i>Fraxinus excelsior</i>	Ash	07/02/2004	RG
<i>Fumaria officinalis</i>	Common fumitory	08/05/2004	RG
<i>Galium aparine</i>	Cleavers	27/07/2010	JU,CR
<i>Hodreum murinum</i>	Wall barley	27/07/2010	JU,CR
<i>Humulus lupulus</i>	Hop	29/02/2004	RG
<i>Hyacinthoides hispanica</i>	Spanish bluebell	09/05/2004	RG
<i>Ilex aquifolium</i>	Holly	07/02/2004	RG
<i>Iris pseudacorus</i>	Flag iris	17/04/2004	RG

<i>Juglans regia</i>	Walnut	07/02/2004	RG
<i>Kickxia spuria</i>	Round leaved fluellen	27/07/2010	JU,CR
<i>Lactuca serriola</i>	Prickly lettuce	27/07/2010	JU,CR
<i>Lamium album</i>	White dead nettle	27/07/2010	JU,CR
<i>Lamium amplexicaule</i>	Henbit deadnettle	08/05/2004	RG
<i>Lapsana communis</i>	Nipplewort	27/07/2010	JU,CR
<i>lotus corniculatus</i>	Birds foot trefoil	27/07/2010	JU,CR
<i>Malus sylvestris</i>	Crab apple	07/02/2004	RG
<i>Malva sylvestris</i>	Common mallow	08/05/2004	RG
<i>Medicago lupilana</i>	Black medic	27/07/2010	JU,CR
<i>Myosoton aquaticum</i>	Water chickweed	27/07/2010	JU,CR
<i>Picris echioides</i>	Bristly oxtongue	27/07/2010	JU,CR
<i>Pinus sylvestris</i>	Scots Pine	07/02/2004	RG
<i>Plantago lanceolata</i>	Ribwort plantain	27/07/2010	JU,CR
<i>Plantago major</i>	Greater plantain	27/07/2010	JU,CR
<i>Prunus avium</i>	Wild cherry	07/02/2004	RG
<i>Prunus padus</i>	Bird cherry	07/02/2004	RG
<i>Prunus spinosa</i>	Blackthorn	07/02/2004	RG
<i>Quercus robur</i>	Pedunculate Oak	07/02/2004	RG
<i>Rosa canina</i>	Dog rose	06/06/2004	RG
<i>Rubus fruticosus agg</i>	Bramble	27/07/2010	JU,CR
<i>Rumex conglomeratus</i>	Clustered dock	27/07/2010	JU,CR
<i>Rumex hydrolapathum</i>	Water dock	27/07/2010	JU,CR
<i>Salix caprea</i>	Goat willow	07/02/2004	RG
<i>Sambucus nigra</i>	Elder	07/02/2004	RG
<i>Senecio jacobaea</i>	Ragwort	27/07/2010	JU,CR
<i>Senecio vulgaris</i>	Groundsel	27/07/2010	JU,CR
<i>Sisymbrium officinale</i>	Hedge mustard	27/07/2010	JU,CR
<i>Solanum dulcamara</i>	Woody knightshade	27/07/2010	JU,CR
<i>Sonchus asper</i>	Prickly sow thistle	27/07/2010	JU,CR
<i>Sorbus aucuparia</i>	Rowan	07/02/2004	RG
<i>Sparganium erectum</i>	Branched bur reed	27/07/2010	JU,CR
<i>Stachys sylvatica</i>	Hedge woundwort	27/07/2010	JU,CR
<i>Stellaria media</i>	Common chickweed	08/05/2004	RG
<i>Tanacetrum vulgare</i>	Tansy	27/07/2010	JU,CR
<i>Taraxacum officinale</i>	Dandelion	27/07/2010	JU,CR
<i>Taxodium distichum</i>	Swamp cypress	07/02/2004	RG
<i>Trachystemon orientale</i>	Abraham,isaac and jacob	08/02/2004	RG
<i>Tragopogon pratensis</i>	Goatsbeard	15/06/2004	RG
<i>Trifolium campestre</i>	Hop trefoil	27/07/2010	JU,CR
<i>Trifolium pratense</i>	Red clover	27/07/2010	JU,CR
<i>Trifolium repens</i>	White clover	27/07/2010	JU,CR
<i>Tussilago farfara</i>	Coltsfoot	10/04/2004	RG
<i>Typha angustifolia</i>	Lesser reedmace	27/07/2010	JU,CR
<i>Ulex europaeus</i>	Gorse	15/02/2004	RG
<i>Urtica dioica</i>	Stinging nettle	27/07/2010	JU,CR
<i>Veronica persica</i>	Common field speedwell	27/07/2010	JU,CR
<i>Viburnam opulus</i>	Guelder rose	15/02/2004	RG
<i>Viburnum lantana</i>	Wayfaring tree	25/01/2004	RG
<i>Vicia villosa</i>	Hairy vetch	27/07/2010	JU,CR
<i>Viola arvensis</i>	Field pansy	08/05/2004	RG
<i>Viscum album</i>	Mistletoe	29/02/2004	RG

BRYOPHYTES (mosses,
liverworts and hornworts)

<i>Atrichum undulatum</i>	Catherines moss	02/01/2004	RG
<i>Cirriphyllum piliferum</i>	(Hedw) grout	02/01/2004	RG
<i>Grimmia pulvinata</i>		02/01/2004	RG
<i>Lophocolea cuspidata</i>	(Nees) Dum	07/11/2004	RG
<i>Lophocolea heterophylla</i>	(Schrad) Dum	07/11/2004	RG
<i>Petasites fragrans</i>	Winter heliotrope	10/01/2004	RG

FERNS

<i>Pteridium aquilinum</i>	Bracken	02/01/2004	RG
<i>Dryopteris filix-mas</i>	Male fern	02/01/2004	RG
<i>Dryopteris austriaca</i>	Broad buckler fern	02/01/2004	RG

LICHENS

<i>Amandinea punctata</i>		19/06/2004	RG
<i>Anisomeridium polypori</i>		07/08/2004	RG
<i>Aspicilia contorta</i>		07/08/2004	RG
<i>Basidia chlorotricula</i>		07/08/2004	RG
<i>Basidia sabuletorum</i>		19/06/2004	RG
<i>Calaplaca britannica</i>		19/06/2004	RG
<i>Calaplaca citrina</i>		08/02/2004	RG
<i>Calaplaca crenulatella</i>		19/06/2004	RG
<i>Calaplaca flavescens</i> (<i>c. heppiana</i>)		09/04/2004	RG
<i>Calaplaca flavocitrina</i>		19/06/2004	RG
<i>Calaplaca holocarpa</i>		07/08/2004	RG
<i>Calaplaca ruderum</i>		19/06/2004	RG
<i>Calaplaca teicholyta</i>		07/08/2004	RG
<i>Candelariella aurella</i>		19/06/2004	RG
<i>Candelariella reflexa</i>		19/06/2004	RG
<i>Candelariella vitellina</i>		03/02/2004	RG
<i>Cladonia chlorophaea</i>		15/02/2004	RG
<i>Cladonia fimbriata</i>		18/01/2004	RG
<i>Cladonia humilis</i> (<i>c. conoidea</i>)		09/04/2004	RG
<i>Cladonia parasitica</i>		19/06/2004	RG
<i>Diploschistes scruposus</i>		06/05/2004	RG
<i>Evernia prunastri</i>		29/02/2004	RG
<i>Hypogymnia physodes</i>		04/01/2004	RG
<i>Lecania cyrtella</i>		07/08/2004	RG
<i>Lecania erysibe</i>		07/08/2004	RG
<i>Lecania erysibe</i> var <i>sorediata</i>		07/08/2004	RG
<i>Lecania hutchinsiae</i>		07/08/2004	RG

<i>Lecanora albescens</i>	29/02/2004	RG
<i>Lecanora chlarotera</i>	15/02/2004	RG
<i>Lecanora compestris</i>	08/02/2004	RG
<i>Lecanora crenulata</i>	19/06/2004	RG
<i>Lecanora dispersa</i>	03/03/2004	RG
<i>Lecanora expallens</i>	19/06/2004	RG
<i>Lecanora muralis</i>	03/02/2004	RG
<i>Lecanora ochrostoma</i>	19/06/2004	RG
<i>Lecanora persimilis</i>	19/06/2004	RG
<i>Lecanora polytropa</i>	19/06/2004	RG
<i>Lecanora rabenhorstii</i>	19/06/2004	RG
<i>Lecanora saligna</i>	19/06/2004	RG
<i>Lecanora symmicta</i>	19/06/2004	RG
<i>Lecidella carpathica</i>	09/02/2004	RG
<i>Lecidella stigmatea</i>	08/02/2004	RG
<i>Lepraria incana</i>	29/02/2004	RG
<i>Lepraria lobificans</i>	07/08/2004	RG
<i>Leproloma vouauxii</i>	15/03/2004	RG
<i>Melanelia exasperatula</i>	07/08/2004	RG
<i>Melanelia subaurifera</i>	07/02/2004	RG
<i>Micarea denigrata</i>	19/06/2004	RG
<i>Neofuscelia verruculifera</i>	07/08/2004	RG
<i>Parmelia carperata</i>	25/01/2004	RG
<i>Parmelia perlata (parmotrema chinense)</i>	25/01/2004	RG
<i>Parmelia revoluta</i>	19/06/2004	RG
<i>Parmelia sulcata</i>	07/02/2004	RG
<i>Phaeophyscia orbicularis</i>	18/02/2004	RG
<i>Physcia adscendens</i>	14/02/2004	RG
<i>Physcia caesia</i>	06/03/2004	RG
<i>Physcia dubia</i>	07/08/2004	RG
<i>Physcia tenella</i>	19/06/2004	RG
<i>Physconia grisea</i>	08/03/2004	RG
<i>Porpidia soledizodes</i>	19/06/2004	RG
<i>Porpodia tuberculosa</i>	19/06/2004	RG
<i>Psilolechia lucida</i>	19/06/2004	RG
<i>Ramalina farinacea</i>	07/02/2004	RG
<i>Rinodina gennarii</i>	11/04/2004	RG
<i>Rinodina pyrina</i>	19/06/2004	RG
<i>Scoliciosporum chlorococcum</i>	19/06/2004	RG
<i>Scoliciosporum umbrinum</i>	07/08/2004	RG
<i>Stereocaulon pileatum</i>	07/08/2004	RG
<i>Trapelia coarctata</i>	19/06/2004	RG
<i>Trapelia placodiodes</i>	19/06/2004	RG
<i>Verrucaria hochstetteri</i>	19/06/2004	RG

<i>Verrucaria macrostoma</i>		19/06/2004	RG
<i>Verrucaria muralis</i>		19/06/2004	RG
<i>Verrucaria nigrescens</i>		09/04/2004	RG
<i>Verrucaria viridula</i>		19/06/2004	RG
<i>Xanthoparmelia mougeotii</i>		07/08/2004	RG
<i>Xanthoria calcicolar (aureola)</i>		06/03/2004	RG
<i>Xanthoria candelaria</i>		21/02/2004	RG
<i>Xanthoria polycarpa</i>		19/02/2004	RG
<i>Xanthoria parietina</i>		10/01/2004	RG

FUNGI

<i>Agaricus lanipes</i>		20/10/2005	DJ
<i>Agaricus silvicola</i>	wood mushroom	20/10/2005	DJ
<i>Agaricus xanthodermus</i>	Yellow stainer	17/09/2000	RG
<i>Agrocybe molesta</i>	ripple caps	18/09/2005	DJ
<i>Agrocybe praecox</i>	spring agaric	26/04/2005	DJ
<i>Aleuria aurantia</i>	Orange peel fungus	28/11/2002	RG
<i>Amanita fulva</i>	Tawny grisette	18/11/2004	RG
<i>Anthracobia macrocystis</i>		09/01/2004	RG
<i>Armillaria mellea</i>	Honey fungus	13/10/2002	RG
<i>Arthonia punctiformis</i>		19/06/2004	RG
<i>Ascocoryne sarcoides</i>	Purple jellydisc	23/10/2004	RG
<i>Ascotremella faginea</i>		22/01/2005	KR
<i>Athelia arachnoidea</i>		19/06/2004	RG
<i>Auricularia auricula</i>	Jelly ear	24/11/2002	RG
<i>Baeospora myosura</i>	Conifercone cap	03/01/2004	RG
<i>Bisporella citrina</i>	yellow fairy cups	25/10/2003	KR
<i>Bjerkandra adusta</i>	smokey bracket	31/10/2002	RG
<i>Bolbitius vitellinus</i>	egg yolk fungus	23/10/2005	DJ
<i>Boletus chrysenteron</i>	Red cracked boletus	20/07/2004	RG
<i>Boletus parasiticus</i>	Parasitic boletus	20/09/2004	RG
<i>Boletus pruinatus</i>	matt bolete	28/09/2005	DJ
<i>Bulbillomyces farinosus</i>		26/06/1905	RG
<i>Bulgaria inguinans</i>	Bachelors buttons	27/11/2002	RG
<i>Calocera cornea</i>	small stag's horn	29/10/2005	DJ
<i>Calocera glossoides</i>		17/10/2005	DJ
<i>Calocera pallido - spathulata</i>	Yellow clubs	16/10/2004	RG
<i>Calocera viscosa</i>	Yellow stagshorn	03/10/2004	RG
<i>Camarophyllus niveus</i>	white waxcap	10/11/2007	DJ
<i>Cerocorticium molare</i>		31/10/2002	RG
<i>Chroodrostereum purpureum</i>	Silverleaf	23/10/2004	RG
<i>Clavariadelphus fistulosa var contorta</i>		27/11/2003	RG
<i>Clavulinopsis lute-alba</i>	yellow club	15/11/2007	DJ
<i>Clitocybe flaccida</i>	Tawny funnel cap	25/10/2003	RG
<i>Clitocybe gibbosa</i>	Common funnel cap	20/10/2005	DJ
<i>Clitocybe graminicola</i>		02/11/2004	DJ

<i>Clitocybe inornata</i>		01/11/2007	DJ
<i>Clitocybe nebularis</i>	Clouded agaric	08/11/2003	RG
<i>Clitocybe subalutacea</i>		23/10/2006	DJ
<i>Collybia butyracea</i>	butter cap	23/09/2007	DJ
<i>Collybia confluens</i>	clustered toughshank	19/09/2007	DJ
<i>Collybia dryophila</i>	russet toughshank	01/11/2006	DJ
<i>Collybia erythropus</i>	red leg toughshank	23/10/2004	DJ
<i>Coprinus atramentarius</i>	Common ink cap	26/11/2003	RG
<i>Coprinus comatus</i>	Shaggy ink cap	25/10/2003	RG
<i>Coprinus disseminatus</i>	Fairies bonnets	26/06/1905	RG
<i>Coprinus domesticus</i>	Firebug inkcap	10/10/2004	RG
<i>Coprinus lagopides</i>		13/04/2006	DJ
<i>Coprinus micaceus</i>	Glistening ink cap	14/09/1995	RG
<i>Coprinus plicatilis</i>	Fairy parasol	30/11/2002	RG
<i>Coriolus viricolor</i>	Many-zoned polypore	11/03/2001	RG
<i>Cortinarius evernius</i>		10/10/2007	DJ
<i>Cortinarius flexipes</i>		10/10/2007	DJ
<i>Cortinarius uliginosus</i>		24/11/2002	RG
<i>Crepidotus herbarum</i>		24/12/2002	RG
<i>Crepidotus mollis</i>	flat oysterling	15/10/2005	DJ
<i>Crepidotus variabilis</i>	variable oysterling	28/11/2002	RG
<i>Cyrtidula quercus</i>		19/06/2004	RG
<i>Cystoderma amianthinum</i>	earthy powder cap	02/11/2007	DJ
<i>Dacrymyces stillatus</i>	common jelly spot	10/10/2007	DJ
<i>Daedaleopsis confragosa</i>	Blushing bracket	16/11/2002	RG
<i>Daedaleopsis quercina</i>	oak maze gill	10/08/2007	DJ
<i>Daldinia concentrica</i>	cramp balls	10/04/2008	DJ
<i>Diatrype disciformis</i>	Beech barkspot	25/02/2004	RG
<i>Entoloma rhodopolium</i>	wood pinkgill	23/10/2007	DJ
<i>Exidia glandulosa</i>	witches butter	23/10/2007	DJ
<i>Fistulina hepatica</i>	beefsteak	23/10/2007	DJ
<i>Fomes fomentarius</i>	horse hoof fungi	10/10/2006	DJ
<i>Flamulina velutipes</i>	velvet shanks	01/02/2008	DJ
<i>Fuligo septica</i>	flowers of tan	18/09/2007	DJ
<i>Galerina clavata</i>		24/10/2005	DJ
<i>Galerina mycenopsis</i>		15/09/2005	DJ
<i>Ganoderma adspersum</i>	common bracket	10/04/2008	DJ
<i>Ganoderma applanatum</i>	artist's bracket	10/04/2008	DJ
<i>Ganoderma lipsiense</i>		03/05/2005	DJ
<i>Geastrum coronatum</i>	Earth Star	11/09/2004	RG
<i>Geastrum schmidelii</i>	dwarf earthstar	23/10/2005	DJ
<i>Geastrum striatum</i>	Striate earthstar	23/10/2004	DJ, RG
<i>Gymnopilus hybridus</i>		03/01/2004	RG
<i>Gymnopilus penetrans</i>	common rust gill	23/10/2004	DJ
<i>Gymnopilus spectabilis</i>	laughing Jim	17/09/2006	DJ
<i>Helvella crispa</i>	white saddle	10/11/2006	DJ
<i>Humaria hemisphaerica</i>	Glazed cup	10/10/2004	RG
<i>Hygrocybe camarophyllus pratensis</i>	meadow waxcap	03/11/2007	DJ

<i>Hygrocybe langei</i>	yellow waxcap	03/11/2007	DJ
<i>Hygrocybe marchi</i>	orange waxcap	03/11/2007	DJ
<i>Hygrocybe niveus</i>	ivory waxcap	03/11/2007	DJ
<i>Hygrocybe psittacina</i>	parrot waxcap	03/11/2007	DJ
<i>Hygrocybe unguinosa</i>		08/11/2006	DJ
<i>Hyphodontia sambuci</i>	elder whitewash	10/11/2005	DJ
<i>Hypholoma fasciiculare</i>	sulphur tuft	10/11/2005	DJ
<i>Hypoxylon fragiforme</i>	beech woodwart	16/10/2007	DJ
<i>Inonothus hispidus</i>	shaggy bracket	04/04/2008	DJ
<i>Inonotus cuticularis</i>		10/10/2004	RG
<i>Kuehneromyces mutabilis</i>	sheathed woodtuft	16/09/2006	DJ
<i>Laccaria amethystea</i>	Amethyst deciever	06/11/2004	RG
<i>Laccaria laccata</i>	deceiver	16/11/2007	DJ
<i>Laccaria purpureo badia</i>		16/11/2007	DJ
<i>Lacrymaria velutina</i>	weeping widow	23/10/2006	DJ
<i>Lactarius fluens</i>		31/10/2004	RG
<i>Lactarius turpis</i>	Ugly milk cap	24/09/2004	RG
<i>Lactarius quietus</i>	oak milkcap	19/10/2006	DJ
<i>Laetiporus sulphureus</i>	chicken of the woods	27/08/2005	DJ
<i>Lepiota clypeolaria</i>	shield dapperling	20/10/2006	DJ
<i>Lepiota cristata</i>	stinking dapperling	17/09/2007	DJ
<i>Lepiota hystrix</i>	shaggy dapperling	29/10/2006	DJ
<i>Lepiota procera</i>	parasol	28/09/2007	DJ
<i>Lepista nuda</i>	Wood blewit	29/10/2004	RG
<i>Lepista sorida</i>		03/11/2006	DJ
<i>Lichenocodium xanthoriae</i>		10/01/2004	RG
<i>Lycogala epidendrum</i>	Wolf milk fungus	26/04/2004	RG
<i>Lycoperdon perlatum</i>	common puffball	29/09/2007	DJ
<i>Lycoperdon pyriforme</i>	Stump puffball	23/10/2004	RG
<i>Lyophyllum fumosum</i>		23/10/2005	DJ
<i>Macrolepiota rhacodes</i>	shaggy parasol	23/10/2005	DJ
<i>Macrolepiota rhacodes var</i>	smooth stem shaggy parasol	19/10/2006	DJ
<i>Marasmius oreades</i>	fairy ring mushrooms	23/10/2005	DJ
<i>Marasmius ramealis</i>	twig parachute	23/10/2005	DJ
<i>Meripilus giganteus</i>	Giant polypore	29/09/2004	RG
<i>Mucilago crustacea</i>		24/10/2004	RG
<i>Mutinus caninus</i>	dog stinkhorn	23/10/2005	DJ
<i>Mycena acicula</i>	orange bonnet	23/10/2005	DJ
<i>Mycena flavo-alba</i>	ivory bonnet	23/10/2005	DJ
<i>Mycena galericulata</i>	common bonnet	23/10/2005	DJ
<i>Mycena inclinata</i>	clustered bonnet	23/10/2005	DJ
<i>Mycena olida</i>	rancid bonnet	23/10/2005	DJ

<i>Mycena stylobates</i>	bulbous bonnet	23/10/2005	DJ
<i>Nectria cinnabarina</i>	coral spot	23/10/2005	DJ
<i>Nectria peziza</i>		23/10/2005	DJ
<i>Neobulgaria pura</i>	beech jelly disc	23/10/2005	DJ
<i>Oudemansiella radicata</i>	Rotting shank	23/09/2004	RG
<i>Panaeolus ater</i>		23/10/2005	DJ
<i>Panaeolus campanulatus</i>		23/10/2005	DJ
<i>Panaeolus foenicicii</i>	brown mottlegill	23/10/2005	DJ
<i>Panaeolus papilionaceus</i>	petticoat mottlegill	23/10/2005	DJ
<i>Peziza ampliata</i>	Dune cap	10/11/2004	RG
<i>Peziza badia</i>	Bay cup	26/10/2004	RG
<i>Peziza varia</i>	layered cup	23/10/2005	DJ
<i>Peziza vesiculosa</i>	blistered cup	23/10/2005	DJ
<i>Phallus impudicus</i>	Common stinkhorn	23/09/2004	RG
<i>Phellinus tuberculoses</i>		20/12/2004	RG
<i>Phlebia radiata</i>	wrinkled crust	23/10/2005	DJ
<i>Phlebia rufa</i>		23/10/2005	DJ
<i>Pholiota adiposa</i>		23/10/2005	DJ
<i>Pholiota squarrosa</i>	shaggy scaly cap	23/10/2005	DJ
<i>Pleurotus dryinus</i>	veiled oyster	23/10/2005	DJ
<i>Pleurotus ostreatus</i>	oyster Mushroom	23/10/2005	DJ
<i>Pluteus cervinus</i>	deer shield	23/10/2005	DJ
<i>Pluteus salicinus</i>	Willow shield	23/10/2005	RG
<i>Polypore squamosus</i>	dryads saddle	23/10/2005	DJ
<i>Psathyrella candolleana</i>	crumble cap	23/10/2005	DJ
<i>Psathyrella conopilis</i>	Conical brittlestem	23/10/2004	RG
<i>Psathyrella corrugis</i>	red edge brittlestem	23/10/2005	DJ
<i>Psathyrella hydrophila</i>		23/10/2005	DJ
<i>Psathyrella lutensis</i>		23/10/2005	DJ
<i>Psathyrella piluliformis</i>	common stump brittlestem	23/10/2005	DJ
<i>Pseudotrametes gibbosa</i>		23/10/2005	DJ
<i>Psilocybe bullacea</i>		23/10/2005	DJ
<i>Psilocybe cyanescens</i>	wavy cap, magic mushroom	23/11/2007	DJ
<i>Psilocybe semilanceata</i>	liberty cap, magic mushroom	23/10/2007	DJ
<i>Puccinia coronata</i>	grass rust	23/10/2005	DJ
<i>Ramaria formosa</i>		23/10/2005	DJ
<i>Ramaria stricta</i>	upright coral	23/10/2005	DJ
<i>Reticularia lycoperdon</i>		10/04/2004	RG
<i>Russula delica</i>	milk white brittlegill	23/10/2005	DJ
<i>Russula ochroleuca</i>	Common yellow russula	06/11/2004	RG
<i>Schizopora paradoxa</i>	Split porecrust	28/12/2004	RG
<i>Scleroderma verrucosum</i>	Scaly earthball	12/09/2004	RG
<i>Scutellinia scutellata</i>	eye lash	23/10/2005	DJ
<i>Serpula himantoides</i>		11/12/2004	RG
<i>Stereum hirsutum</i>	hairy stereum	23/10/2005	DJ

<i>Stropharia aeruginosa</i>	copper blue roundhead	23/10/2005	DJ
<i>Stropharia aurantiaca</i>	red lead roundhead	23/10/2005	DJ
<i>Stropharia ochrocyanea</i>		23/10/2005	DJ
<i>Tremella mensentrica</i>	yellow brain fungi	23/10/2005	DJ
<i>Tricholoma columbetta</i>	blue spot knight	23/10/2005	DJ
<i>Tubifera ferruginosa</i>		22/07/2004	RG
<i>Vascellum pratense</i>	Meadow puffball	25/07/2004	RG
<i>Volvariella gloiocephala</i>	rosegill	23/10/2005	DJ
<i>Xylaria hypoxylon</i>	candle snuff	23/10/2005	DJ
<i>Xylaria longipes</i>	dead moll's fingers	23/10/2005	DJ
<i>Xylaria polymorpha</i>	dead mans fingers	23/10/2005	DJ

BIRDS

<i>Accipter nisus</i>	Sparrowhawk	24/05/2009	JU
<i>Acrocephalus schoenobaenus</i>	Sedge Warbler	2007	BS
<i>Acrocephalus scirpaceus</i>	Reed Warbler	17/08/2010	BS
<i>Aegithalus caudatus</i>	Long tailed tit	2010	JU
<i>Aix galericulata</i>	Mandarin Duck	2010	JU
<i>Aix sponsa</i>	Wood Duck	2010	JU
<i>Alauda arvensis</i>	Skylark	2010	JU
<i>Alcedo atthis</i>	Kingfisher	2010	JU
<i>Alectoris rufa</i>	Red Legged Partridge	2010	BS
<i>Anas crecca</i>	Teal	2009	BS
<i>Anas platyrhynchos</i>	Mallard	2010	
<i>Anser anser</i>	Greylag Goose	2010	BS
<i>Apus apus</i>			
	Common Swift	2010	JU
<i>Ardea cinerea</i>	Grey Heron	2010	RG,BS,JU
<i>Arenaria interpres</i>	Turnstone	2007	BS
<i>Aythya ferina</i>	Pochard	2007	BS
<i>Aythya fuligula</i>			
	Tufted Duck	2010	JU
<i>Botaurus stellaris</i>			
	Bittern	2004	RG
<i>Branta canadensis</i>	Canada Goose	2010	JU
<i>Buteo Buteo</i>			
	Common Buzzard	01/03/2010	JU
<i>Carduelis cabaret</i>			
	Lesser Redpoll	2008	BS
<i>Carduelis carduelis</i>	Goldfinch	2010	
<i>Carduelis chloris</i>	Greenfinch	2010	

<i>Carduelis spinus</i>	Siskin	2007	JU<BS
<i>Certhia familiaris</i>	Treecreeper	2010	JU
<i>Coccothraustes coccothraustes</i>	Hawfinch	2010	BS
<i>Columba livia</i>	Rock Dove	2010	BS
<i>Columba oenas</i>	Stock dove	2010	
<i>Columba palumbus</i>	Wood pigeon	2010	JU
<i>Corvus corone</i>	Carrion crow	20/03/2004	RG
<i>Corvus frugilegus</i>	Rook	2007	JU
<i>Corvus monedula</i>	Jackdaw	2007	JU
<i>Cyanistes caeruleus</i>	Blue tit	2010	JU
<i>Cygnus olor</i>	Mute Swan	2010	BS
<i>Delichon urbicum</i>	House martin	2010	
<i>Dendrocopos major</i>	Great- spotted woodpecker	2010	
<i>Egretta garzetta</i>	Little egret	2010	JU
<i>Erithacus rubecula</i>	Robin	2010	JU
<i>Falco peregrinus</i>	Peregrine Falcon	2010	JU
<i>Falco subbuteo</i>	Hobby	2008	BS
<i>Falco tinnunculus</i>	Kestrel	2010	JU
<i>Fringilla coelebs</i>	Chaffinch	2010	JU
<i>Fringilla montifringilla</i>	Brambling	2009	BS
<i>Fulica atra</i>	Coot	01/01/2010	JU
<i>Gallinago chloropus</i>	Moorhen	2010	JU
<i>Gallinago gallinago</i>	Common Snipe	01/12/2010	JU
<i>Garrulus glandarius</i>	Jay	2010	JU
<i>Haematopus ostralegus</i>	Oystercatcher	2010	JU
<i>Hirundo rustica</i>	Swallow	2010	JU
<i>Larus argentatus</i>	Herring Gull	2010	BS
<i>Larus canus</i>	Common Gull	2010	BS
<i>Larus fuscus</i>	Lesser Black Backed Gull	2010	JU
<i>Larus marinus</i>	Great Black Backed Gull	2009	JU
<i>Larus ridibundus</i>	Black- headed gull	2010	JU
<i>Luscinia megarhynchos</i>	Nightingale	2009	JU
<i>Motacilla alba</i>	Pied Wagtail	2010	JU
<i>Motacilla cinerea</i>	Grey Wagtail	2009	JU
<i>Muscicapa striata</i>	Spotted Flycatcher	2009	JU,BS
<i>Oriolus oriolus</i>	Golden Oriole	25/04/2009	JU,BS

<i>Parus Ater</i>	Coal Tit	2010	JU
<i>Parus major</i>	Great Tit	2010	JU
<i>Passer domesticus</i>	House Sparrow	2010	JU
<i>Phylloscopus collybita</i>	Chifchaff	2010	JU
<i>Phylloscopus inoratus</i>	Yellow Browed Warbler	2009	Gi Greco
<i>Phylloscopus sibilatrix</i>	Wood Warbler	03/08/2010	JU
<i>Phylloscopus trochilus</i>	Willow Warbler	03/08/2010	JU
<i>Pica pica</i>	Magpie	21/03/2004	RG
<i>Picus viridis</i>	Green Woodpecker	2007	JU
<i>Prunella modularis</i>	Dunnock	2010	JU
<i>Pyrrhula pyrrhula</i>	Bullfinch	2008	JU,BS
<i>Rallus aquaticus</i>	Water Rail	2010	BS
<i>Regulus ignicapillus</i>	Firecrest	2009	BS
<i>Regulus regulus</i>	Goldcrest	2010	JU
<i>Scolopax rusticola</i>	Woodcock	2009	JU,BS
<i>Sitta europaea</i>	Nuthatch	2007	BS
<i>Sterna hirundo</i>	Common Tern	01/05/2010	BS
<i>Sturnus vulgaris</i>	Starling	2007	JU
<i>Streptopelia decaocto</i>	Collared dove	2010	JU
<i>Streptopelia turtur</i>	Turtle Dove	2009	BS
<i>Strix aluco</i>	Tawny owl	2010	JU
<i>Sylvia atricapilla</i>	Blackcap		JU
<i>Sylvia borin</i>	Garden warbler	2010	JU
<i>Sylvia communis</i>	Whitethroat		
<i>Sylvia curruca</i>	Lesser Whitethroat	2009	BS
<i>Tringa nebularia</i>	Greenshank	2010	BS
<i>Tringa totanus</i>	Redshank	2010	BS
<i>Troglodytes troglodytes</i>	Wren	2010	BS

<i>Turdus iliacus</i>	Redwing	2010	BS
<i>Turdus merula</i>	Blackbird	2010	JU
<i>Turdus philomelos</i>	Song Thrush	2010	JU
<i>Turdus pilaris</i>	Fieldfare	2010	JU
<i>Turdus viscivorus</i>	Mistle Thrush	18/04/2010	JU
<i>Vanellus vanellus</i>	Lapwing/Peewit/Green Plover	2009	BS

MAMMALS

<i>Erinaceus europaeus</i>	Hedgehog	06/09/2004	RG
<i>Sorex araneus</i>	Common shrew	22/08/2004	RG
<i>Mustela erminea</i>	Stoat	27/12/2004	MB
<i>Rattus norvegicus</i>	Brown rat	27/12/2004	MB

CURRENTLY UNCLASSIFIED

<i>Allolobophora longa</i>	Earth worm	16/10/2004	RG
<i>Aphis fabae</i>	Blackfly	06/06/2004	RG
<i>Aphrophora alni</i>		07/09/2003	RG
<i>Bibio marci</i>	St marks fly	25/04/2004	RG
<i>Biorrhiza pallida</i>	Oak apple	25/04/2004	RG
<i>Blaniulus guttulatus</i>	Snake spotted millipede	29/12/2004	RG
<i>Bombus hortorum</i>	Bumble bee	20/04/2004	RG
<i>Capaea nemoralis</i>	Land snail	20/07/2004	RG
<i>Chrysopa perla</i>	Green Lacewing	04/08/2003	RG
<i>Chrysoperla carnea</i>	Green Lacewing	23/07/2003	RG
<i>Cryptops hortensis</i>		14/09/2003	RG
<i>Dolichovespula sylvestris</i>	Tree wasp	23/09/2004	RG
<i>Eisenia foetida</i>	Brandling worm	16/10/2004	RG
<i>Episyrphus balleatus</i>		27/07/2004	RG
<i>Eristalis (E) cryptarum</i>		27/07/2004	RG
<i>Eristalis eoseristalis pertinax</i>		10/08/2004	RG
<i>Eysarcoris fabricii</i>		06/06/2004	RG
<i>Ferdinandea cuprea</i>		05/08/2004	RG
<i>Forficula auricularia</i>	Common Earwig	08/08/2003	RG
<i>Gerris lacustris</i>	Pond Skater	27/07/2003	RG
<i>Glischrochilus hortensis</i>		16/05/2004	RG
<i>Graphocephala fennahi</i>	Leafhopper	03/09/2003	RG
<i>Helophilus trivittatus</i>		25/04/2004	RG
<i>Heterotoma merioptera</i>		08/08/2004	RG
<i>Hydrometra stagnorum</i>	Water Measurer	27/07/2003	RG
<i>Liocoris tripustulatus</i>		24/07/2003	RG
<i>Lithobius forficatus</i>	Common centipede	30/08/2003	RG
<i>Lygocoris pabulinus</i>	Common green capsid	25/07/2004	RG
<i>Macrosiphum rosae</i>	Greenfly	01/08/2003	RG
<i>Megasyrphus annulipes</i>		31/07/2004	RG
<i>Meliscaeva auricollis</i>		27/07/2004	RG
<i>Metasyrphus corollae</i>		26/07/2004	RG
<i>Metasyrphus latifasciatus</i>		27/07/2004	RG

<i>Metasyrphus lunigar</i>		19/09/2004	RG
<i>Miris striatus</i>		19/05/1999	RG
<i>Myathropa flora</i>		22/05/2004	RG
<i>Nemoura cinerea</i>	Stonefly	17/04/2004	RG
<i>Notostira elongata</i>		26/06/2003	RG
<i>Ophiulus pilosus</i>		27/10/2003	RG
<i>Panorpa communis</i>	Scorpion fly	27/07/2004	RG
<i>Pericoma fuliginosa</i>	Moth fly	18/05/2004	RG
<i>Phaonia subventa</i>		17/05/2004	RG
<i>Philaenus spumarius</i>	Common Froghopper	25/08/2003	RG
<i>Phyllobius pomaceus</i>	Weevil	06/05/2004	RG
<i>Polydesmus complanatus</i>	Flat-backed millipede	30/08/2003	RG
<i>Psithyrus barbutellus</i>	Cuckoo bumble bee	30/08/2004	RG
<i>Psyche casta</i>	Bagworm	18/05/2004	RG
<i>Pyrausta aurata</i>		31/07/2004	RG
<i>Rhogogaster viridis</i>	Sawfly	15/05/2004	RG
<i>Scaeva pyrausti</i>		31/07/2004	RG
<i>Stenodema laevigatum</i>		19/08/2003	RG
<i>Tetraneura ulmi</i>	Elm gall	15/06/2004	RG
<i>Tetrix subulata</i>	Slender Groundhopper	09/06/2003	RG
<i>Urophora cardui</i>	Thistle gall	27/06/2004	RG
	Sepsid flies	18/05/2004	RG

MOTHS

<i>Synanthedon vespiformis</i>	Yellow-legged clearwing	31/07/2004	RG
<i>Crambus perlella</i>	Grass moth	28/06/2004	RG
<i>Cydia pomonella</i>	Codling moth	13/08/2004	RG
<i>Crocallis elinguaris</i>	Scalloped oak	17/07/2004	RG
<i>Saturnia pavonia</i>	Emperor moth	20/07/2004	RG
<i>Argyresthia trifasciata</i>		16/05/2004	RG
<i>Apocheima pilosaria</i>	Pale brindled beauty	27/03/2004	RG
<i>Agapeta hamana</i>		07/08/2004	RG
<i>Acronicta psi</i>	Gray dagger	06/08/2003	RG
<i>Acronicta rumicis</i>	Knot grass moth	21/09/2004	RG
<i>Adela reaumurilla (viridella)</i>	Green longhorn	16/05/1997	RG
<i>Agrotis exclamatoris</i>	Heart and dart	01/06/2003	RG
<i>Amphipyra pyramidea</i>	Copper underwing	10/05/2003	RG
<i>Apamea monoglypha</i>	Dark arches	07/06/2003	RG
<i>Autographa gamma</i>	Silver Y	03/08/2003	RG
<i>Biston betularia</i>	Peppered moth	12/09/1999	RG
<i>Cabera pusaria</i>	Clouded silver	25/07/2003	RG
<i>Calliteara pudibunda</i>	Pale tussock	01/06/2003	RG
<i>Campptogramma bilineata</i>	Yellow shell	19/08/2001	RG
<i>Cerura vinula</i>	Puss moth	21/06/2002	RG
<i>Crambus pascuella</i>	Grass moth	19/06/2003	RG
<i>Dypterygia scabriuscula</i>	Birds wing	07/06/2003	RG
<i>Eilema lurideola</i>	Common footman	29/07/2003	RG
<i>Epirrhoe alternata</i>	Common carpet	01/06/2003	RG
<i>Erannis defoliaria</i>	Mottled umber	16/05/1999	RG
<i>Euproctis chrysorrhoea</i>	Brown-tail	28/05/1998	RG
<i>Eurrhyncha hortulata</i>	Small magpie	25/06/2003	RG
<i>Galleria mellonella</i>	Wax moth	14/06/2003	RG
<i>Hyloicus pinastri</i>	Pine hawk moth	28/08/2003	RG

<i>Hypena proboscidalis</i>	Snout	06/06/2002	RG
<i>Laothoe populi</i>	Poplar hawk moth	04/06/2002	RG
<i>Malacosoma neustria</i>	Lackey	21/05/1995	RG
<i>Melanchra persicariae</i>	Dot moth	07/09/2003	RG
<i>Nemophora degeerela</i>		21/05/1994	RG
<i>Noctua pronuba</i>	Large yellow underwing	06/09/2000	RG
<i>Nomophila noctuella</i>	Rush veneer	07/09/2003	RG
<i>Ochropleura plecta</i>	Flame shoulder	01/06/2003	RG
<i>Opisthograptis luteolata</i>	Brimstone moth	01/06/2003	RG
<i>Orgyia antiqua</i>	Vapourer	11/06/1995	RG
<i>Phalera bucephala</i>	Buff-tip	29/06/2003	RG
<i>Pleuroptya ruralis</i>	Mother of pearl	28/07/2003	RG
<i>Pterophorus pentadactyla</i>	White plume moth	07/06/2003	RG
<i>Ptilodon capucina</i>	Coxcomb prominent	19/09/2003	RG
<i>Scoliopteryx libatrix</i>	Herald	03/08/2003	RG
<i>Setaceous hebrew character</i>	Xestia c-nigrum	01/06/2003	RG
<i>Smerinthus ocellata</i>	Eyed Hawk-moth		RG
<i>Spilosoma lubricipeda</i>	White Ermine	01/04/1995	RG
<i>Timandra griseata</i>	Blood-vein	24/07/2003	RG
<i>Tortrix viridana</i>	Green oak tortrix	09/06/2003	RG
<i>Orgyia antiqua</i>	Vapourer	12/06/2004	RG
<i>Orthosia populeti</i>	Lead coloured Drab	03/04/2004	RG
<i>Hemithea aestivaria</i>	Common emerald	22/05/2004	RG
<i>Lomaspilis marginata</i>	Clouded border	03/07/2004	RS/RG
<i>Xanthorhoe montanata</i>	Silver-ground carpet	06/06/2002	RG
TRUE FLIES			
<i>Tipula maxima</i>	Crane-fly	29/07/2003	RG
<i>Tipula oleracea</i>	Crane-fly	28/08/2003	RG
<i>Ptychoptera contaminata</i>		28/09/2003	RG
<i>Simulium sp</i>	Biting black-fly	07/08/2003	RG
	St marks fly	14/04/2000	RG
<i>Stratiomys chameleon</i>	Soldier fly	15/06/2003	RG
<i>Bee-fly</i>	Bombylius major	09/04/2000	RG
ROBBER FLIES			
<i>Dioctria rufipes</i>		26/06/2003	RG
<i>Eutolmus rufibarbis</i>		20/07/2003	RG
HOVERFLIES			
<i>Callicera spinolae</i>	Golden hoverfly	19/09/2004	RG
<i>Volucella zonaria</i>		19/06/2003	RG
<i>Volucella inanis</i>		21/07/2003	RG
<i>Volucella pellucens</i>		26/06/2003	RG
<i>Volucella bombylans</i>		26/06/2003	RG
<i>Eristalis tenax</i>	The drone fly	25/06/2003	RG
<i>Cheilosia fraterna</i>		27/04/2004	RG
<i>Eristalis (eoseristalis) arbustorm</i>		19/09/2004	RG
<i>Syrirta pipiens</i>		31/07/2004	RG
<i>Eristalis (eoseristalis) nemorum</i>		03/08/2003	RG
<i>Platycheirus albimanus</i>		20/07/2003	RG
<i>Platycheirus clypeatus</i>		21/07/2003	RG
<i>Xylota segnis</i>		31/08/2003	RG
<i>Chrysogaster hirtella</i>		28/07/2003	RG
<i>Rhingia campestris</i>		05/09/2003	RG

<i>Helophilus pendulus</i>		25/06/2003	RG
<i>Episyrphus balteatus</i>		20/07/2003	RG
<i>Eriozona syrphoides</i>		20/07/2003	RG
<i>Syrphus vitripennis</i>		20/07/2003	RG

CONOPID FLIES

<i>Tachina fera</i>		20/07/2003	RG
<i>Dexia rustica</i>		27/07/2003	RG
<i>Sarcophaga carnia</i>	Flesh-fly	23/06/2003	RG
<i>Conops quadrifasciatus</i>		20/07/2003	RG
<i>Urophora cardui</i>	Picture-winged fly	03/09/2003	RG
<i>Calliphora vomitoria</i>	Bluebottle	12/07/2003	RG
<i>Lucilia caesar</i>	Greenbottle	01/07/2003	RG
<i>Sapromyza sp</i>		31/08/2003	RG
<i>Neuroctena anilis</i>		01/09/2003	RG

HYMENOPTERA

(ant,sawflies,bees,wasps and relatives)

<i>Rhogogaster viridis</i>	Sawfly	01/07/2002	RG
<i>Arge cyanorocea</i>	Sawfly	26/06/2003	RG
<i>Ophion luteus</i>	Yellow ophion	31/05/2003	RG
<i>Suspiciosus</i>		31/08/2003	RG
<i>Netelia testaceus</i>		05/09/2003	RG
<i>Apanteles glomeratus</i>		24/06/2002	RG
<i>Lasius niger</i>	Black garden ant	20/07/2003	RG
<i>Lasius flavus</i>	Yellow meadow ant	20/07/2003	RG
<i>Vespa crabro</i>	Hornet	29/10/2002	RG
<i>Vespula vulgaris</i>	Common wasp	30/08/2003	RG
<i>Mellinus arvensis</i>	Field digger wasp	04/09/2003	RG
<i>Apis mellifera</i>	Honey bee	25/06/2003	RG
<i>Andrena haemorrhoa</i>		20/07/2003	RG
<i>Chelostoma florissomne</i>		27/07/2003	RG
<i>Dasygaster altercater</i>		23/07/2003	RG
<i>Bombus pascuorum</i>	Common carder bee	26/06/2003	RG
<i>Bombus lucorum</i>		25/06/2003	RG
<i>Bombus hypnorum</i>	Tree Bee	13/08/2010	RG
<i>Bombus lapidarius</i>		20/07/2003	RG

COLEOPTERA (beetles)

<i>Adalia bipunctata</i>	2-spot ladybird	29/06/2003	RG
<i>Prionus coriarius</i>	Longhorn beetle	15/07/2004	RG
<i>Thea 22-punctata</i>	22 spot ladybird	27/06/2004	RG
<i>Adalia 10-punctata</i>	10 spot ladybird	17/07/2004	RG
<i>Cantharis rustica</i>	Soldier beetle	22/05/2004	RG
<i>Cassida rubiginosa</i>	Green tortoise beetle	01-Aug	RG
<i>Gastrophysa viridula</i>	Leaf beetle	16/05/2004	RG
<i>Leptura rubra</i>	Longhorn beetle	11/08/2004	RG
<i>Anatis ocellata</i>	Eyed Ladybird	09/05/1999	RG
<i>Athous haemorrhoidalis</i>		11/06/1999	RG
<i>Calvia 14-guttata</i>		28/07/2003	RG
<i>Carabus violaceus</i>	Violet ground beetle	04/06/2003	RG
<i>Cionus scrophulariae</i>	Figwort weevil	02/06/1999	RG
<i>Clytus arietis</i>	Wasp beetle	18/05/2003	RG
<i>Coccinella 7-punctata</i>	7-spot ladybird	29/06/2003	RG

<i>Dorcus parallelipedus</i>	Lesser stag beetle	25/05/1998	RG
<i>Halzia 16-guttata</i>		01/05/2000	RG
<i>Hister cadaverinus</i>		25/08/2003	RG
<i>Hydrous caraboides</i>	Water scavenger	01/06/2003	RG
<i>Lucanus cervus</i>	Stag beetle	11/06/1996	RG
<i>Malachius bipustulatus</i>	Red-tipped flower beetle	18/05/2003	RG
<i>Meligethes aeneus</i>	Pollen beetle	23/06/2003	RG
<i>Oedemera nobilis</i>		20/07/2003	RG
<i>Paracorymbia fulva</i>	Tawny Longhorn Beetle	03/07/2010	RG
<i>Propylia 14-punctata</i>		18/09/2003	RG
<i>Agonum viduum spp</i>		30/08/2003	RG
<i>Pyrochroa serraticornis</i>	Cardinal beetle	18/05/2003	RG
<i>Rhagoncha fulva</i>	Black-tipped soldier beetle	13/07/2003	RG
<i>Staphylinus olens</i>	Devils coach-horse	13/07/2003	RG
<i>Strangalia maculata</i>		15/06/2003	RG

PLANT GALLS

<i>Neuroterus quercusbaccarum</i>	Common spangle gall	03/08/2003	RG
<i>Neuroterus numismalis</i>	Silk button spangle gall	03/08/2003	RG
<i>Andricus quercuscalius</i>	Knopper gall	03/08/2003	RG
<i>Andricus kollari</i>	Marble gall	08/08/2003	RG
<i>Andricus fecundator</i>	Oak artichoke gall	18/08/2003	RG
<i>Trigonaspis megaptera</i>	Bud gall	29/08/2003	RG
<i>Cynips longiventris</i>		26/11/2003	RG
<i>Pontania proxima</i>	Bean gall	03/08/2003	RG
<i>Eriophyes inangulis</i>	Alder leaf gall	06/08/2003	RG
<i>Acalitus brevitarsus</i>	Alder leaf gall	06/08/2003	RG
<i>Phytomyza ilices</i>	Holly leaf mine	06/08/2003	RG
<i>Phytoptus similus prunispinosae</i>	Blackthorn pouch gall	06/08/2003	RG
<i>Eriophyes macrochelus</i>	Field maple gall	08/08/2003	RG
<i>Eriophyes macrorhynchus</i>	Nail gall	10/08/2003	RG
<i>Eriophyes pseudoplatani</i>	Hairy pouch gall	10/08/2003	RG
<i>Phytoptus tiliae tiliaae</i>	Lime nail gall	18/08/2003	RG
<i>Hartigola annulipes</i>		11/10/2003	RG
<i>Urophora cadui</i>	Thistle stem gall	03/08/2003	RG
<i>Aulacidea hieracii</i>	Hawkweed stem gall	06/08/2003	RG
<i>Jaapiella veronicae</i>	Speedwell gall midge	06/08/2003	RG
<i>Dasineura urticae</i>	Nettle gall	01/09/2003	RG

ARANEAE (spiders & other arthropods)

<i>Araneus quadratus</i>		01/09/2003	RG
<i>Araneus diadematus</i>	Garden spider	01/09/2003	RG
<i>Araniella cucurbitina</i>		01/09/2003	RG
<i>Meta segmentata</i>		01/09/2003	RG
<i>Tegenaria gigantea</i>		03/09/2003	RG
<i>Pardosa amentata</i>	Wolf spider	01/09/2003	RG
<i>Leiobunum rotundum</i>	Harvestmen	04/08/2003	RG

REPTILES & AMPHIBIANS

<i>Natrix natrix</i>	Grass Snake	2010	MB
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BUTTERFLIES

<i>Aglais urticae</i>	Small Tortoiseshell	20/04/2003	RG
<i>Anthocharis cardamines</i>	Orange Tip	21/04/1998	RG
<i>Aricia agestis</i>	Brown Argus	12/07/2003	RG

<i>Callophrys rubi</i>	Green Hairstreak	10/05/1998	RG
<i>Celastrina argiolus</i>	Holly Blue	01/08/1996	RG
<i>Gonepteryx rhamni</i>	Brimstone	19/03/2003	RG
<i>Inachis io</i>	Peacock	24/04/2000	RG
<i>Lycaena phlaeas</i>	Small Copper	15/09/1995	RG
<i>Maniola jurtina</i>	Meadow Brown	11/07/2003	RG
<i>Ochlodes venata</i>	Large skipper	20/07/2004	RG
<i>Parargae aegeria</i>	Speckled Wood	03/05/1999	RG
<i>Pieris brassicae</i>	Large White	13/04/2003	RG
<i>Pieris napi</i>	Green-veined White	13/09/1995	RG
<i>Polygonia C-album</i>	Comma	22/03/2003	RG
<i>Polyommatus icarus</i>	Common Blue	15/09/1995	RG
<i>Pyronia tithonus</i>	Gatekeeper	11/07/1995	RG
<i>Strymonidia w-album</i>	White-letter hairstreak	31/07/2004	RG
<i>Thymelicus lineola</i>	Essex Skipper	11/07/2003	RG
<i>Thymelicus sylvestris</i>	Small skipper	31/07/2004	RG
<i>Vanessa atalanta</i>	Red Admiral	21/06/1998	RG
<i>Vanessa cardui</i>	Painted Lady	17/06/2003	RG

ORTHOPTERA (Grasshoppers & Crickets)

<i>Chorthippus parallelus</i>	Meadow Grasshopper	21/07/2003	RG
<i>Conocephalus dorsalis</i>	Long winged cone-head	27/07/2004	RG
<i>Leptophyes punctatissima</i>	Speckled Bush-cricket	13/07/2003	RG
<i>Meconema thalassinum</i>	Oak Bush-cricket	09/07/2003	RG
<i>Metrioptera roeselii</i>	Roesels bush cricket	27/07/2004	RG
<i>Pholidoptera griseoptera</i>	Dark Bush-cricket	20/07/2003	RG

HETEROPTERA (true bugs)

<i>Acanthosoma haemorrhoidale</i>	Hawthorn Shield Bug	02/05/1999	RG
<i>Leptoterna dolabrata</i>	Meadow plant bug	27/06/2004	RG
<i>Lygus rugulipennis</i>	Tarnished plant bug	19/09/2004	RG
<i>Nabis rugosus</i>	Common Damselfly Bug	07/09/2003	RG
<i>Palomena prasina</i>	Common Green Shield Bug	20/09/1998	RG
<i>Pentatoma rufipes</i>	Forest Bug	29/06/2003	RG
<i>Piezodorus lituratus</i>	Gorse shieldbug	26/04/2004	RG
<i>Anthocoris nemorum</i>	Common Flower Bug	26/06/2003	RG
<i>Elasmucha grisea</i>	Parent Bug	01/06/1999	RG
<i>Deraeocoris ruber</i>		27/07/2003	RG
<i>Coreus marginatus</i>	Squash Bug	30/08/2003	RG

AQUATIC INVERTEBRATES

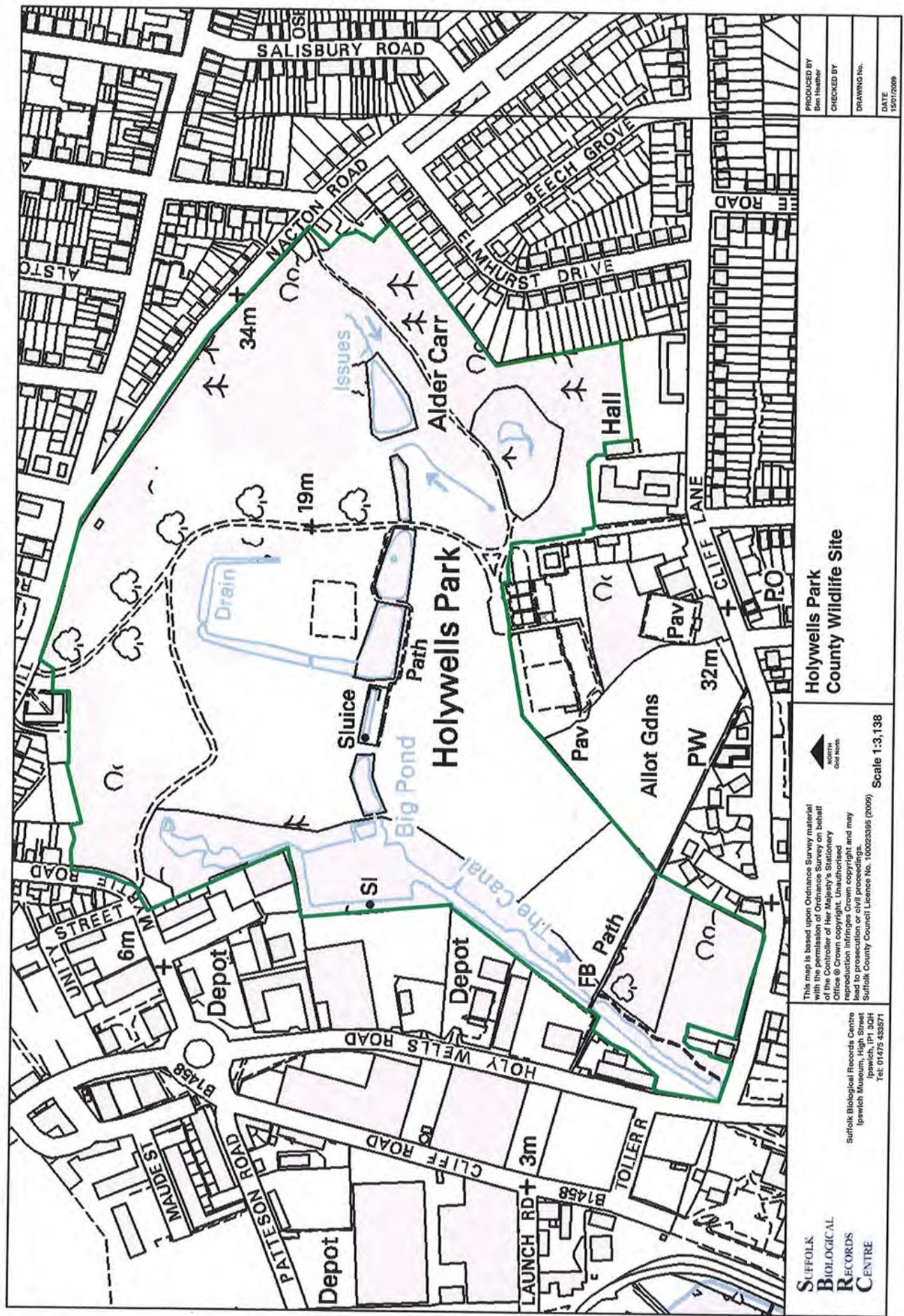
ODONATA (dragonflies)

<i>Aeshna cyanea</i>	Southern Hawker	03/08/2003	RG
<i>Aeshna grandis</i>	Brown Hawker	12/07/2003	RG
<i>Aeshna mixta</i>	Migrant Hawker	05/08/2001	RG
<i>Anax imperator</i>	Emperor Dragonfly	15/06/2003	RG

<i>Libellula depressa</i>	Broad-bodied Chaser	15/06/2003	RG
<i>Libellula quadrimaculata</i>	Four-spotted Chaser	15/06/2003	RG
<i>Orthetrum cancellatum</i>	Black-tailed Skimmer	13/06/2000	RG
<i>Pyrrosoma nymphula</i>	Large Red Damselfly	03/08/2003	RG
<i>Sympetrum striolatum</i>	Common Darter	27/09/1998	RG
<i>Ischnura elegans</i>	Blue-tailed Damselfly	30/05/2003	RG
<i>Enallagma cyathigerum</i>	Common Blue Damselfly	28/06/2003	RG

Recorder name	Intitials used in list
Dale Jarrold	DJ
Dave Fincham	DF
Joe Underwood	JU
Jonny Stone	JS
Kathy Reynolds	KR
Laura Whitfield	LW
Matt Berry	MB
Richard Sharpe	RS
Rob Garrod	RG
Suffolk Wildlife Trust	SWT

APPENDIX 2 – COUNTY WILDLIFE MAP & CITATION



PRODUCED BY
Ben Heather

CHECKED BY
Ben Heather

DRAWING No.
1501/2009

DATE
15/01/2009

**Holywells Park
County Wildlife Site**

Scale 1:3,138

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Ipswich Museum, High Street
Ipswich, IP1 5QH
Tel: 01475 433571

**SUFFOLK
BIOLOGICAL
RECORDS
CENTRE**

Distcode	Ipswich 10
Site Name	HOLYWELLS PARK & CANAL
Grid Reference	TM175435
Parish	IPSWICH
District	Ipswich
Overlap district	
Area (ha)	21.01

Description Surrounded by an urban environment, Holywell's Park is of considerable importance for its landscape qualities and exceptionally good wildlife areas. The park has a wealth of mature woodland including many species of trees, a network of ponds and unmanaged grassland areas. The park supports a wide range of bird species through all seasons including breeding spotted flycatcher and blackcap plus regular visits by grey heron and sparrowhawk. Birds on spring or autumn passage may include ring ouzel and grey wagtail and during the winter, flocks of redpoll and siskin are present. Holywell's Canal, together with a large pond fringed by woodland, is situated in the western section of Holywell's Park. A variety of mature trees are present including oak, ash, beech and sweet chestnut. Some massive specimens of poplar and crack willow along with a few old hornbeams are found within the tree belt. The woodland canopy is continuous. The shrub layer, consisting of elder, hawthorn and field maple extends along the length of the site. An interesting ground flora includes foxglove, celery-leaved buttercup, wood avens and feverfew. Fringed water lily, a rare Suffolk plant, grows in the water. The canal often attracts kingfishers and the area as a whole supports a wide variety of birds throughout the year.

January 2013
Holywells Park, Ipswich

Appendix 12 Ecology Report, November 2012

Holywells Park Restoration

Ecology Report
November 2012

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November 2012

Holywells Park Restoration

Contents

1.0	Introduction.....	I
1.1.	Site Description.....	I
1.2.	Proposed Works.....	I
1.3.	Aims of Study.....	I
2.0	Methodology.....	3
2.1.	Desk Study.....	3
2.2.	Field Study.....	3
3.0	Results and Interpretation.....	5
3.1.	Desk Study.....	5
3.2.	Designated Sites of Nature Conservation Value	5
3.3.	Habitats	6
3.4.	Species.....	9
3.5.	Alien Invasive Species	15
4.0	Discussion.....	16
4.1.	Constraints on Study Information	16
4.2.	Ecological Assessment and Potential Impacts	16
5.0	Recommendations for Further Survey Work, Avoidance and Mitigation Measures.....	25
5.1.	Habitats	25
5.2.	Protected Species	25
5.3.	Fish.....	27
5.4.	Invasive Plant Species.....	27
6.0	Appendix 1: Policy Guidance	33
7.0	Appendix 2: Drawings and Photos.....	35

Version: 1.1

Version date: 12 November 2012

Comment Final

This document has been prepared and checked in accordance with ISO 9001:2008.

November 2012

Holywells Park Restoration

1.0 Introduction

1.1. Site Description

Holywells Park is owned and managed by Ipswich Borough Council. Prior to 1936, the park was home to the Cobbold family. The park lies one mile south-east of Ipswich town close to the regenerated waterfront area and within a predominantly residential area. The Park is bounded by residential roads and housing to the north, south and east and by industrial units to the west.

The park is a designated Conservation Area, a County Wildlife Site; and Regionally Important Geo-diversity Site (RIGS).

The park is 28 hectares in size and comprises a range of habitats including parkland that supports a large number of mature parkland trees, a series of spring-fed waterbodies, unimproved and semi-improved neutral grassland, amenity grassland, dense scrub woodland areas. The park has two Grade 2 listed buildings, the Stable Block and Orangery which are the surviving elements of the former Holywells House. The spring-fed wells within the park supply the line of ponds and canal and moat within the central part of the parkland.

1.2. Proposed Works

In August 2011, and further to discussion between Ipswich Borough Council (IBC) and The Friends of Holywells Park (FOHP), IBC submitted a bid request to the Heritage Lottery Fund (HLF) for various improvements to and developments at Holywells Park. That bid has been successful at the first stage.

The objectives for the park restoration are:

- The key objective is the restoration and re-invigoration of the Stable Block, Orangery and their immediate landscape setting to restore the high quality historic core of the park and provide an outdoor performance area for community use.
- Restore or re-create the medieval waterbodies, the formal gardens and terrace that adorned the mansion;
- The removal of sediment from the pond network as part of the restoration of the waterbodies to improve both their water quality and wildlife value;
- To improve the access provisions within some areas of the park;
- To protect and enhance the natural tranquillity and wildlife value of the Park through sensitive management;
- Creation of opportunities for people to enjoy and appreciate nature conservation;
- To provide appropriate interpretation encouraging community involvement.

1.3. Aims of Study

BSG Ecology was commissioned by LDA Design to undertake the following elements of work:

November 2012

Holywells Park Restoration

- A desktop review of existing records of habitats, protected species and designated sites;
- Consultation with local groups and key personnel;
- Identify and undertake habitat and species surveys required to undertake an assessment of the ecological value and sensitivity of the site.
- An ecological appraisal of the key habitats within the park and the species they are likely to support;
- Provision of advice on the likely impacts of the proposed restoration and the legal implications in relation to habitats and protected species;
- Provision of recommendations on the future site management of the park in order to protect and enhance its ecological value.

November 2012

Holywells Park Restoration

2.0 Methodology

2.1. Desk Study

Suffolk Biological Records Centre was contacted in July 2012 to provide information of any protected or notable species recorded within the park and details of the County Wildlife Site designation for Holywells Park.

The Birds and Wildlife of Holywells Park website was also visited in July 2012 to collect details of species recorded within the park.

Previous reptile survey work was undertaken by Sudbury Ecological Field Services in 2010 of the Holywells Park. The report produced in 2011 has been reviewed for information relating to reptiles and amphibians.

The Management Plan for Holywells Park (Ipswich Borough Council, 2009) has also been reviewed for habitat descriptions and species information.

The Holywells Park Pond Report (Matt Berry, 2011) has also been reviewed and includes descriptions of the various water bodies within the park and sets out the required management of each.

Consultation has been undertaken with the following groups and individuals:

- Matt Berry and Nick Wilcox of the Parks and Open Spaces Section of Ipswich Borough Council, who manage the park.
- The Friends of Holywells Park have been contacted for any findings of the bat walk undertaken on 18 Aug 2012 and for information on the reported tree roosts within the park. Their website has been consulted for any relevant information.
- Suffolk Bat Group was contacted in July 2012 for any records of bat roosts within the park.

2.2. Field Study

2.2.1. Extended Phase 1 Habitat Survey

Principal Ecologist Philippa Harvey MIEEM and Senior Ecologist Kate Vincent MIEEM undertook the Extended Phase 1 Habitat Survey visit on 25 June 2012. The weather was clear and sunny with a temperature of 17.0 C. The site was walked over and the habitats were described using the standard Phase 1 Habitat Survey methodology (JNCC, 2010).

The Extended component of the Phase 1 Habitat Survey included making searches for any signs indicating the presence of protected species. The mature trees within the site were assessed to identify any features on the trees. In addition, an assessment was undertaken of the suitability of the Stable Block and Orangery for roosting bats and a visual check of the exterior was undertaken searching for features suitable for use by roosting bats and for evidence of the presence of bats, such as bat droppings and characteristic staining around potential roost access points. The waterbodies within the site were assessed for their suitability for great crested newt *Triturus cristatus* (Oldham et al. 2000) and also for water vole *Arvicola amphibious*.

November 2012

Holywells Park Restoration

This survey work identified the need to carry out further targeted survey work for bats and water vole.

The Stable Block buildings and the Orangery are to be restored as part of the HLF restoration programme and therefore it is necessary to determine the presence/absence of bat roosts within these buildings.

Several of the water bodies require restoration and the water vole survey will inform the de-silting/restoration strategy.

2.2.2. Bat Surveys

Three dusk emergence surveys and two dawn re-entry surveys were undertaken of the Stable Block and Orangery Buildings during August and September 2012. The surveys undertaken by BSG Ecology in August 2012 were led by Senior Ecologist Alan Salkilld who holds a Natural England Survey Licence (No: 20121353) with assistance from Ecologist Paul Lowe (Natural England Survey Licence No: 20121953), Neville Davey and John Woods.

The Evening emergence survey in September 2012 was undertaken by John Parden (Natural England Survey Licence No: 20121979), Trudy Seagon (Natural England Survey Licence No: 20120555) and Nathan Edmonds of the Mid Anglian Bat Group.

The surveyor locations during the surveys are shown on Drawing 3361_001_B in the appendix.

Table 1: Bat Activity Survey Details

Date	Surveyors	Time of survey	Sunset/sun rise time	Weather
14.08.12	Alan Salkilld Paul Lowe Nev Davey	20:05-21:40	20:20	2/8 cloud, still, dry. 25°C
15.08.12	Alan Salkilld, Paul Lowe Nev Davey	03:46-05:36	05:36	Clear, 18°C
21.08.12	Alan Salkilld, John Woods Nev Davey	19:40-21:16	20:06	Clear, dry, 23°C
22.08.12	Alan Salkilld, John Woods Nev Davey	0446-05:52	05:52	No cloud, dry, light wind 12°C
13.09.12	John Parden Trudy Seagon Nathan Edmonds	19.00 – 21.15	19.15	5/8 cloud, still, 14°C

2.2.3. Water Vole Survey

Water vole survey was undertaken of the waterbodies within the park to locate any signs of water vole activity and to search for water vole burrows in the banks of these waterbodies (Strachan 1998). The surveys were undertaken on the 14 August, 22 August and 23 August 2012 by Senior Ecologist Alan Salkilld and Ecologists Paul Lowe and John Woods.

November 2012
Holywells Park Restoration

3.0 Results and Interpretation

3.1. Desk Study

The consultation exercise resulted in the availability of ecological information on Holywells Park presented in Table 2 below. These data and the 2012 field survey work have been used to inform the results and interpretation section.

Table 2: Information provided during the consultation exercise

Parks and Open Spaces, Ipswich Borough Council	Holywells Park Management Plan Species list for the park Reptile Survey Report
Friends of Holywells Park	Information on bat activity and tree roosts Sightings of water vole within the park
Birds and Wildlife of Holywells Park website	Information on the wildlife of the park- species list for <i>Odonata</i> , and <i>Lepidoptera</i> , birds recorded in the park Details of water vole sighting
Holywells Park Pond Report	Descriptions of waterbodies and proposed management to enhance their ecological interest
Suffolk Bat Group	No records for the park
Suffolk Biological Records Centre	Details of Holywells Park Local Wildlife Site designation Protected and notable species records for the park

3.2. Designated Sites of Nature Conservation Value

Holywells Park is designated as a non-statutory County Wildlife Site (CWS).

The citation for the CWS designation provided by the Suffolk Biological Records Centre (July 2012) provides the following description of the site nature conservation value:

“Surrounded by an urban environment, Holywells Park is of considerable importance for its landscape qualities and exceptionally good wildlife areas. The park has a wealth of mature woodland including many species of trees, a network of ponds and unmanaged grassland areas. The park supports a wide range of bird species through all seasons including breeding spotted flycatcher and blackcap plus regular visits by grey heron and sparrowhawk. Birds on spring or autumn passage may include ring ouzel and grey wagtail and during the winter, flocks of redpoll and siskin are present. Holywells Canal, together with a large pond fringed by woodland, is situated in the western section of Holywells Park. A variety of mature trees are present including oak, ash, beech and sweet chestnut. Some massive specimens of poplar and crack willow along with a few old hornbeams are found within the tree belt. The woodland canopy is continuous. The shrub layer, consisting of elder, hawthorn and field maple extends along the length of the site. An interesting ground flora includes foxglove, celery-leaved buttercup, wood avens and feverfew. Fringed water lily, a rare Suffolk plant, grows in the water. The

November 2012

Holywells Park Restoration

canal often attracts kingfishers and the area as a whole supports a wide variety of birds throughout the year.”

3.3. Habitats

The Phase 1 Habitat Survey identified a range of habitat types within Holywells Park. The Park comprises a formal walled garden and terrace, improved amenity managed improved grassland, semi-improved and unimproved neutral grassland, veteran and mature trees, broadleaved woodland, scrub and both standing and running water. The locations of the habitats described below can be found on Drawing No 3361_001_A in the Appendix 1. Photographs referred to in the text can be found in Appendix 1 (Drawing No: 3361_001_E).

Grasslands

Myrtle Road Meadow and New Meadow form the majority of the grassland within the open central area of the park (see Photo 1). These two meadows are, in part amenity-managed improved grassland dominated by perennial rye-grass *Lolium perenne*, with clover *Trifolium* sp., ribwort plantain *Plantago lanceolata*. Uncut margins bordering the woodland edges of the Myrtle Road Meadow support false oat-grass *Arrhenatherum elatius*, cocksfoot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus*.

The southern half of the New Meadow is managed as a traditional meadow with a series of mown paths through it (see Photo 2). The grassland is semi-improved neutral grassland and is characterised by Yorkshire fog, perennial rye-grass, Timothy *Phleum pratense*, meadow foxtail *Alopecurus pratense*, cocksfoot, ribwort plantain *Plantago lanceolata*, meadow buttercup *Ranunculus acris*, common knapweed *Centurea nigra*, common cat's ear *Hypochaeris radicata* and hogweed *Heracleum sphondylium*.

Kissing Gate Meadow in the southwest corner of the park is unimproved neutral grassland (see Photo 3). Species present include false oat-grass, cocksfoot, Yorkshire fog, ox-eye daisy, meadow cranesbill *Geranium pratense*, meadow buttercup, red campion *Silene dioica*, red clover *Trifolium pratense*, cowslip *Primula vulgaris* and hogweed.

Walled garden

This formal garden is immediately to the west of the Stable Block and clock tower. The garden comprises amenity-managed, improved grassland and formal beds with a wide range of herbs including thyme, lavender, lemon balm with low box hedges on the lower terrace (see Photo 4). The upper terrace supports a series of rose beds set within amenity grassland (see Photo 5).

Water bodies

Dell Pond (see Photo 6)

This is a shallow pond with silty shallow sloping banks with some limited areas of water cress. There is no aquatic vegetation present within the open water. The edges of the pond support great willowherb, and the banks above the pond support bracken *Pteridium aquilinum*, rhododendron, bamboo and trees, shading parts of the pond.

Pond 1 (see Photo 7)

This is a large pond surrounded by crack willow *Salix fragilis*, sweet chestnut *Castanea sativa*, alder *Alnus glutinosa*, ash *Fraxinus excelsior* and dense bramble *Rubus fruticosus* agg. The pond

November 2012

Holywells Park Restoration

is shaded by the trees and there is no marginal vegetation present other than an area of bulrush *Typha latifolia*.

Pond 2 (see Photo 8)

The pond is rectangular in shape and is fringed by common reed *Phragmites australis* and great willowherb *Epilobium hirsutum* with an area of butterbur *Petasites hybridus* and young willow *Salix* sp.

At the time of survey the open water was covered in an algal bloom.

Pond 3 (see Photo 9)

This is a duck pond which is uniform and has shallow bare mud banks with amenity grassland up to the edges. The water is turbid and there is no aquatic vegetation present. The pond is bordered by occasional mature alder trees and the island within the pond has a large weeping willow tree. The pond supports large numbers of mallard and coot.

Pond 4 (see Photo 10)

This pond forms the southern part of the moat and is open water with duckweed *Lemna* sp. and water starwort *Callitriche* sp. Stickleback and large numbers of waterfowl are present. The mud banks are vertical and shallow, eroded by water fowl.

The Moat (see Photo 11)

The moat is located in the centre of the park extending north from Pond 4 and is surrounded by woodland and dense scrub. The water is shallow and has little aquatic vegetation apart from a small amount of water starwort. The banks of the moat are dominated by coltsfoot, creeping thistle *Cirsium arvense*, common nettle *Urtica dioica*, great willowherb, field horsetail *Equisetum arvense*, bramble and alder and willow scrub.

Pond 5 (see Photo 12)

This pond has a weir on the western outflow, regulating the flow of water through the pond. There is a small area of open water with dense marginal vegetation including bulrush, great willowherb, water mint *Mentha aquatica*, hard rush *Juncus inflexus*. Alder trees border the pond.

Pond 6 (see Photo 13)

This pond is linear in nature bordered by wet woodland characterised by mature alder trees with some elder *Sambucus nigra* and bramble and nettle. Brooklime *Veronica beccabunga* and greater pond sedge *Carex riparia* are present. The open water at the western end of this waterbody is fringed by greater pond sedge and yellow flag *Iris pseudocorus*.

Pond 7 (see Photo 14)

This is the largest pond with a large expanse of open water supporting waterfowl including mallard. The southern bank has a wooden boardwalk and edging boards. The pond is bordered by trees, dense scrub and tall herb vegetation, particularly to the north and west. Species include alder, ash, willow and poplar. The island also supports dense elder scrub.

November 2012

Holywells Park Restoration

Pond 8 (see Photo 15)

The southern end of this pond is totally shaded by willow, elm *Ulmus* sp., elder and sycamore *Acer pseudoplatanus*. A small amount of gypsywort *Lycopus europaeus* is present on the eastern bank. The larger, northern part of the pond has some open water with shallow sloping banks which are shaded by trees surrounding the pond. There is an island with dense scrub and mature crack willow present.

The Canal (see Photo 16)

This tree lined waterbody extends southwest from Pond 7 and is a linear waterbody fringed by dense tall herb vegetation on the eastern bank. There is no aquatic vegetation present in the open water. Tall herb/emergent vegetation present includes common nettle, great willowherb, Himalayan balsam *Impatiens glandulifera*, hogweed and yellow flag. The western bank is dominated by ivy, being shaded by trees and bramble scrub.

Trees and Woodland

The woodland and trees dominating much of the eastern part of the park include a number of mature/veteran oak *Quercus robur* and horse chestnut trees as well as lime *Tilia* sp., silver birch *Betula pendula*, willow, beech *Fagus sylvatica*, copper beech, sweet chestnut *Aesculus hippocastanum*, and sycamore (Photo 17).

Nacton Road/Bishop Hill Woodland forming the northern part the park is characterised by mature beech with sycamore, sweet chestnut, horse chestnut, with a dense understory of holly *Ilex aquilifolium* and also rhododendron.

The north-western corner of the site is dominated by broadleaved woodland surrounding the Pond 8. Trees include hornbeam *Carpinus betulus*, sycamore, white willow *Salix alba*, aspen *Populus tremula*, horse chestnut, with an understory of holly, elder, white poplar *Populus albus* and wych elm *Ulmus glabra* (see Photo 18).

Wet woodland occurs along many of the margins of the water bodies with alder *Alnus glutinosa*, crack willow *Salix fragilis* and goat willow *Salix caprea* occurring together with tall marginal vegetation great willowherb *Epilobium hirsutum*, nettle *Urtica dioica* and water mint *Mentha aquatica*.

Dense scrub

Dense scrub occurs within the woodland and waterside habitats occupying the western part of the park. Dense bramble scrub and trees surround the Kissing Gate Meadow and the Old Orchard and the New Orchard at the southern end of the park with species including elm *Ulmus* sp., dog rose *Rosa canina*, pedunculate oak, sweet chestnut, elm sp., hazel *Corylus avellana* and sycamore.

Orchards

In the southern end of the park is the Old Orchard which is surrounded by dense scrub and woodland. No fruit trees were seen from the footpaths bordering the area and access was not possible due to the density of the vegetation. Trees include ash, oak, poplar, sweet chestnut and sycamore.

November 2012

Holywells Park Restoration

The New Orchard is not open to the public and there was no access at the time of survey.

3.4. Species

Bats – Buildings

The Stable Block comprises a two storey main section and a series of single storey buildings surrounding an inner courtyard.

The main two-storey Stable Block (Building 1) has a pitched tiled roof with three wooden dormer windows present on the southern elevation. There are gaps beneath several of the ridge and hip tiles which could allow bats access to the roof space (see Photo 19). In addition, there are some gaps beneath roof tiles and beneath lead flashing at the base of the chimneys. The Stable Block has wooden boxed eaves on all the elevations and on the southern elevation within the courtyard there are several gaps between the eaves and the adjacent wall (see Photo 20). Six fresh bat droppings were located on the mailbox beneath one of the gaps during the evening bat survey work on 21 August 2012. A single common pipistrelle was observed emerging from this gap during the emergence survey on 21 August 2012 at 20.23 and re-entering the same area of boxed eave on the following dawn survey on 22 August 2012 at 05.22. This is, therefore, a confirmed bat roost (for location, see Drawing No: 3361_001_B and C).

On the northern elevation of the Stable Block there are a limited number of features with potential to support roosting bats. There is a gap between the wall and the wooden soffit at the top of the brick column on the eastern side of the entrance way to the court yard (see Photo 21). No bats were recorded emerging or re-entering this gap during any of the surveys and, therefore, currently it is not in use by roosting bats. Bat droppings were located on the northern elevation of the Stable Block close to the Clock Tower beneath a gap between the boxed eaves and the wall (see Drawing No. 3361_001_D).

A single-storey pitched roof stable building with large wooden doors and windows lies on the western and southern side of the courtyard (Buildings 2 and 3). There are several gaps beneath ridge tiles and where slates have slipped or are cracked (see Photo 22). There was no evidence of bats present beneath the gaps, however, recent heavy rain is likely to have washed any droppings away. No bats were recorded emerging from any of these features during any of the evening or dawn bat activity surveys.

The building forming the eastern side of the courtyard (Building 4) is single storey barn with a hipped tiled roof (see Photo 23) Mortar is missing from beneath several of the hip tiles. The southern section of this building has an enclosed roof space, although there is no access to the roofspace. The building is open on its western elevation facing into the courtyard. No evidence of roosting bats was located within the barn. No bats were recorded emerging from any of these features during any of the evening or dawn bat activity surveys.

There is a further open fronted building on the southern elevation (Building 5) which has a hipped tiled roof. There were no gaps noted beneath any of the tiles forming the roof of this building. No bats were recorded emerging from any of these features during any of the evening or dawn bat activity surveys.

November 2012

Holywells Park Restoration

The Clock Tower at the western end of the Stable Block (Building 6) is in good condition with only a few gaps where mortar is missing on the northern elevation (see Photo 24). No signs of bats such as droppings were located in association with these gaps. No bats were recorded emerging from any of these features during any of the evening emergence surveys; however a single common pipistrelle was seen to approach the clock tower at clock height. The timing and behaviour would suggest that the bat may be locating a roost site. Bat droppings were located on the northern elevation of the Stable Block beneath a gap between the boxed eaves and the wall. The bat may be using this as roost or maybe roosting within the Clock Tower of the Stable Block.

Adjoining the clock tower to the west is the toilet block which is a single storey building with a pitched tiled roof (Building 7, see Photo 25). The western elevation and much of the roof is covered in dense ivy obscuring any potential roost features that may be present. The dense ivy could also provide opportunities for bats as a temporary summer roost.

The Orangery

The Orangery (Building 8) is currently clad in protective metal sheeting (see Photo 26) and it is, therefore, not possible to describe the building beneath the cladding. However, it is reported to be timber framed with glass windows, many of which are broken. It is possible that there are features behind the metal cladding that could provide bats with roosting opportunities.

A single bat was viewed emerging from the northwest corner of the Orangery during the evening emergence survey of the 21 August 2012, thereby confirming the presence of a bat roost within this building. No bats were recorded emerging or re-entering from the building on any of the other evening emergence or dawn re-entry surveys and it is considered likely that the Orangery is used as an occasional roost by individual bats (see Drawing No: 3361_001_B).

During the evening activity and dawn surveys in August 2012 common pipistrelle, Soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared *Plecotus auritus* and noctule *Nyctalus noctula* bats were recorded. The appearance of one or more noctule bats near to sunrise on the 15 August 2012 suggests that a roost may be close by.

Bats - Trees

Many of the trees within the Park have potential to support roosting bats with features including woodpecker holes, rot holes and dead wood on trunks or limbs. Two trees are identified to have supported bat roosts although the year, species and number of bats is not recorded. The location of these two trees is shown on the Extended Phase 1 Habitat Survey Results Plan in Appendix 1).

There are a number of bat boxes placed on mature Scots Pine trees on the western edge of the Moat and in the southern area of the park (see Photo 26). There are no signs indicating the current presence of roosting bats within any of these bat boxes.

Bats - Foraging

The mosaic of habitats at Holywells Park including grasslands, woodlands and waterbodies provides optimal foraging habitat for bats. The bat walks that have been organised by the Friends of Holywells Park in 2011 and 2012 have recorded both common and soprano pipistrelle bat activity within the park.

November 2012

Holywells Park Restoration

During the evening activity and dawn surveys in August 2012 common pipistrelle, Soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared *Plecotus auritus* and noctule *Nyctalus noctula* bats were recorded. The appearance of one or more noctule bats near to sunrise on the 15 August 2012 suggests that a roost may be close by.

Water vole

No water vole burrows were located during the survey of the waterbodies within the park. There is a confirmed sighting of water vole from Pond 5 in 2012 (reported on the website: The Birds and Wildlife of Holywells Park, 2012).

Dell Pond

This pond has gradually sloping banks with overhanging vegetation, there is little marginal or aquatic vegetation and the pond is isolated from the other water bodies within the park. It is considered unlikely that water vole will be using this pond.

Pond 1

The banks of this pond appear to be gently sloping; however access was compromised by the densely vegetated nature of the banks.

Pond 2

It was not possible to access the banks as they were densely vegetated with tall herb vegetation and bramble scrub and therefore it was not possible to confirm the suitability of the habitat for water vole.

Pond 3

The banks of this pond are very low, only 2-3 inches high. There were no signs of water vole burrows. It is considered unlikely that water vole will be using this pond.

Pond 4 and the Moat

Mud banks, up to 6 inches high, covered in ivy in many places and no sign of water vole burrows in the more accessible stretches of bank.

Pond 5

A single water vole dropping was located during the survey of this pond in August 2012 and there was evidence of water voles feeding on the marginal vegetation.

Pond 6

This overgrown stretch of water runs east from Pond 5 where water vole has been recorded. Although the banks are inaccessible and covered in vegetation/ trees, it is considered likely that water vole could move through this area towards the Canal.

Pond 7

The banks are covered by overhanging trees and appear to gently slope into the water, therefore not offering water vole any good burrowing opportunities. The southern edge of the pond is boarded by a boardwalk and wooden edging boards and there are no vertical banks suitable for water vole burrows.

November 2012

Holywells Park Restoration

Pond 8

This pond was almost dried up in August and the banks were inaccessible to survey. It is understood that this pond dries up every summer (Holywells Park Pond Report, 2011) and therefore has limited suitability for water vole.

The Canal

It was not possible to survey the banks of the Canal for water vole burrows due to the density of tall herb/emergent vegetation on the eastern bank. The west bank slopes gradually into the water and is mostly covered in ivy and bramble.

In summary, it is considered that the Canal and Pond 5, 6 and possibly some areas of Pond 7 support the most suitable habitats for water vole with marginal vegetation for feeding and probably some banks which are steep enough for burrows to be created. However, due to the overgrown nature of many of the banks, access was limited during the survey. It was not possible to access the banks from the open water due to the depth of silt present.

Birds

Eleven bird species were incidentally recorded during the survey and, as they are present during the breeding season, it is considered possible that they and other birds are nesting within the site. The park supports a range of suitable habitats for nesting birds, such as the mature trees, buildings, dense scrub, woodland and areas of marginal vegetation. These habitats are also suitable habitats for feeding. Ninety three bird species are recorded for the park (Species list August 2012).

Birds recorded during the Extended Phase 1 Habitat survey are listed in Table 3.

Green woodpecker and Mallard are identified as “amber list” species in relation to their population status, particularly with respect to changes in abundance and range (Eaton, M.A. et al (2009)). Amber listed species are of medium conservation concern. None are listed as Priority Species within the UK Biodiversity Action Plan or as Species of Principal Importance under the provisions of the NERC Act 2006.

Table 3: Birds recorded during the 2012 site survey

Common Name	Latin Name	UK Conservation Status
Green woodpecker	<i>Picus viridus</i>	Medium conservation concern
Mallard	<i>Anas platyrhynchos</i>	Medium conservation concern
Coot	<i>Fulica atra</i>	-
Chiffchaff	<i>Phylloscopus collybita</i>	-
Woodpigeon	<i>Columba palumbus</i>	-
Chaffinch	<i>Fringilla coelebs</i>	-
Blackbird	<i>Turdus merula</i>	-
Magpie	<i>Pica pica</i>	-
Wren	<i>Troglodytes troglodytes</i>	-
Blue tit	<i>Cyanistes caeruleus</i>	-

November 2012

Holywells Park Restoration

Robin	<i>Erithacus rubecula</i>	-
Blackcap	<i>Sylvia atricapilla</i>	-

Of the ninety bird records (2004 – 2010) provided for the park (Holywells Park Species List, July 2012), ten species are of high conservation concern, UK BAP Priority Species and Species of Principal Importance (as referred to by the NERC Act 2006) and twenty are of medium conservation concern (see Table 4).

Table 4: Bird species of conservation concern recorded for Holywells Park 2004 – 2010

Common Name	Latin Name	UK Conservation Status	UK BAP/Species of Principal Importance
Skylark	<i>Alauda arvensis</i>	High conservation concern	✓
Bittern	<i>Botaurus stellaris</i>	High conservation concern	✓
Spotted flycatcher	<i>Muscicapa striata</i>	High conservation concern	✓
House sparrow	<i>Passer domesticus</i>	High conservation concern	✓
Wood warbler	<i>Phylloscopus sibilatrix</i>	High conservation concern	✓
Starling	<i>Sturnus vulgaris</i>	High conservation concern	✓
Redwing	<i>Turdus iliacus</i>	High conservation concern	✓
Fieldfare	<i>Turdus pilaris</i>	High conservation concern	✓
Song thrush	<i>Turdus philomelos</i>	High conservation concern	✓
Lapwing	<i>Vanllus vanellus</i>	High conservation concern	✓
Willow warbler	<i>Phylloscopus trochilus</i>	Medium conservation concern	
Green woodpecker	<i>Picus viridis</i>	Medium conservation concern	
Mallard	<i>Anas platyrhynchos</i>	Medium conservation concern	
Kingfisher	<i>Alcedo atthis</i>	Medium conservation concern	

November 2012

Holywells Park Restoration

Turnstone	<i>Arenaria interpres</i>	Medium conservation concern	
Pochard	<i>Aythya ferina</i>	Medium conservation concern	
Tufted duck	<i>Aythya fuligula</i>	Medium conservation concern	
Little egret	<i>Egretta garzetta</i>	Medium conservation concern	
Kestrel	<i>Falco tinnunculus</i>	Medium conservation concern	
Oystercatcher	<i>Haematopus ostralegus</i>	Medium conservation concern	
Swallow	<i>Hirundo rustica</i>	Medium conservation concern	
Common gull	<i>Larus canus</i>	Medium conservation concern	
Great black backed gull	<i>Larus marinus</i>	Medium conservation concern	
Black headed gull	<i>Larus ridibundus</i>	Medium conservation concern	
Nightingale	<i>Luscinia megarhynchos</i>	Medium conservation concern	
Dunnock	<i>Prunella modularis</i>	Medium conservation concern	
Bullfinch	<i>Pyrrhula pyrrhula</i>	Medium conservation concern	
Common tern	<i>Sterna hirundu</i>	Medium conservation concern	
Common whitethroat	<i>Sylvia communis</i>	Medium conservation concern	
Mistle thrush	<i>Turdus viscivorus</i>	Medium conservation concern	

Amphibians

Smooth newt *Lissotriton vulgaris* and common toad *Bufo bufo* were located during the 2011 reptile surveys (Sudbury Ecological Field Services, 2011). Individuals were recorded in the vicinity of Kissing Gate Meadow, the New Orchard and the Walled Garden and Terrace.

Common toad is a UK BAP Priority Species and a Species of Principal Importance as under the provisions of the NERC Act 2006.

November 2012

Holywells Park Restoration

Great crested newt *Triturus cristatus*

Due to the presence of both fish and waterfowl, the lack of any great crested newt records within 2km of the park and the geographical isolation of the park within an urban area, it is considered highly unlikely that this species would be present in the ponds/waterbodies.

Reptiles

A low population (Froglife 1999) of grass snake *Natrix natrix* is reported (Sudbury Ecological Field Services 2011), with no more than one adult being seen during any of the survey visits. The locations were the New Orchard, the unmanaged southern edge of New Meadow, adjacent to the allotments and the nature area north of the Bowling Green. Holywells Park supports some suitable habitat for grass snake, in particular the waterbodies which grass snake will use for feeding. The long grass and scrub in the south west part of the park and the wet woodland/scrub fringing many of the ponds are also optimal grass snake habitats.

Grass snake is a UK BAP Priority Species and a Species of Principal Importance as under the provisions of the NERC Act 2006.

Invertebrates

A wide range of invertebrate species have been recorded from within the park including 23 species of beetles (*Coleoptera*), 19 species of ants, sawflies, bees, wasps (*Hymenoptera*), 18 species of hoverflies (*Syrphidae*), two species of robber flies (*Asilidae*), seven species of true flies (*Diptera*), 11 species of dragonflies and damselflies (*Odonata*) and 21 species of butterfly and moth (*Lepidoptera*).

There is one historical record of a stag beetle *Leucanus servus* (2003) from the north western woodland adjacent to Nacton Road. Stag Beetle is a UK BAP Priority Species and a Species of Principal Importance under the provisions of the NERC Act 2006.

3.5. Alien Invasive Species

Himalayan Balsam *Impatiens glandulifera* is present along the banks of the canal. Removal by hand pulling prior to seeding should be undertaken annually to prevent this alien species spreading within the park.

November 2012

Holywells Park Restoration

4.0 Discussion

4.1. Constraints on Study Information

Bat surveys

There was no access to the roof space of the Stable Block due to the presence of a hornet's nest. Therefore it is not possible to confirm whether there are any signs of bat activity within the roofspace.

In addition as the Orangery building was locked, it was not possible to survey the building internally and therefore it is unknown whether there is any evidence of bat activity internally.

It was not possible, due to locked courtyard gates, to access the courtyard of the Stable Block during the evening and dawn surveys of the 14/08/12 and 15/08/12. The buildings were viewed from the outside and although the roof was visible, it was not possible to view the boxed eaves on the southern elevation of the Stable Block buildings.

However, two further dusk and dawn surveys were undertaken from the courtyard on the second visit. A further evening emergence survey was undertaken by the Mid-Anglian Bat Group during September 2012 which confirmed the presence of a roost within the Stable Block. Therefore the lack of access during the first survey is not considered to represent a constraint to the assessment.

Water vole survey

Safe access to the banks of many of the waterbodies was restricted in August 2012 by the dense bankside vegetation and by the unknown depth of the silt within the ponds. It was not possible to search all the banks for signs of water vole activity or for the presence of water vole burrows.

4.2. Ecological Assessment and Potential Impacts

The assessment of ecological impacts and identification of opportunities for restoration or enhancement is based on currently available information regarding the proposals for Holywells Park.

4.2.1. Designated Non-Statutory Site of Nature Conservation Interest

The NPPF states that, "*to minimise impacts on biodiversity and geodiversity, planning policies should:*

- a) *Plan for biodiversity at a landscape-scale across local authority boundaries;*
- b) *Identify and map components of the local ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them and areas identified by local partnerships for habitat restoration or creation;*
- c) *Promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets; and identify suitable indicators for monitoring biodiversity in the plan;*

November 2012

Holywells Park Restoration

Local Planning Policy

The Ipswich Borough Council Core Strategy (December 2011) Policy CS4 Protecting Our Assets sets out the Council's commitment to protecting and enhancing the Borough's natural assets, including County Wildlife Sites.

The Ipswich Local Plan (November, 1997) is the current adopted Local Plan for the Borough, and has saved Local Plan policies in accordance with the Planning and Compulsory Purchase Act 2004. Through Policies NE 14 and 15 the Council will seek to conserve the nature conservation interest of the County Wildlife Sites and will not grant planning permission for development which would be likely to result in the destruction of, or damage to, County Wildlife Sites.

The Local Plan also identifies Holywells Park to lie within a green corridor and wildlife corridor therefore saved Policies NE 4 and NE19 of the Local Plan also apply and the Council has a commitment to protect and enhance these corridors.

Holywell Park is a County Wildlife Site for its range of habitats set within an urban environment.

The proposed restoration of the waterbodies within the park aims to enhance the long term value of this network of waterbodies providing green corridors through the centre and along the western edge of the park. There will be short-term disturbance to some of the water bodies during the de-silting works that will be phased over three years, however, the long-term effect will be positive for freshwater invertebrates and water vole.

4.2.2. Habitats

The data collected provides an indication of the value Holywells Park plays to local biodiversity. The Phase 1 Habitat Survey provides adequate information on the range of habitats within the site. The range of habitats within the park provides a variety of opportunities to maintain and enhance wildlife value.

The UK BAP includes detailed Action Plans for priority habitats and species. Priority habitats within the UK BAP that are relevant to the site are shown in Tables 5. The list of priority habitats and species included within the UK BAP is closely related to the list of habitats and species of principal importance.

4.2.3. Local Biodiversity Action Plans

The UK BAP is supported by a series of Local Biodiversity Action Plans (LBAPs), usually set up on a local authority administrative boundary basis. Each LBAP identifies those habitats considered to be most important in that area (usually referred to as priority habitats and species). Commonly, an LBAP will identify a number of habitats and species for which "action plans" have been prepared. The Suffolk Local Biodiversity Action Plan has Action Plans for a range of habitats. Those relevant to Holywells Park are identified in Table 5.

November 2012
Holywells Park Restoration

Table 5: UK BAP and LBAP Priority Habitats relevant to the site

UK BAP Priority Habitats	Suffolk Local BAP
Lowland Meadows	Lowland Hay Meadows
Ponds	Eutrophic Ponds
Wood Pasture and Parkland	Wood Pasture and Parkland
Traditional Orchards	Traditional Orchards
	Urban
Lowland Mixed Deciduous Woodlands	Lowland Mixed Deciduous Woodlands

Ponds

The central corridor of waterbodies with open water, wet woodland and marginal vegetation present opportunities for a variety of wildlife including breeding birds, foraging birds, foraging bats on the larger waterbodies, freshwater invertebrates and water vole.

Three waterbodies (Ponds 1, 2 and 3) are heavily silted with little aquatic or marginal vegetation. Many of the waterbodies are shaded by mature trees which will lead to leaf fall into the pond which will lead to an increased level of silt in the long term as well as inhibiting the colonisation of native marginal vegetation. In addition, Pond 3 supports a large number of waterfowl and is, therefore, eutrophic with no marginal or aquatic vegetation.

The Canal has been partially dredged approximately eight years ago and some trees on the eastern bank have been removed with the intention of reducing the silt build up and reduce shading of the water. The northern half of the Canal remains to be dredged.

The proposed restoration of the waterbodies through removal of silt is to be phased over a three year period:

- Year 1: Pond 1 and Pond 2
- Year 2: Pond 3 and the northern and eastern part of the Moat
- Year 3: The Canal

The de-silting of these waterbodies will be carried out from the bank using a long-arm excavator to remove silt from the centre of the pond and restore gently sloping margins. Overhanging trees surrounding Pond 1 will be thinned out to reduce shading and reduce leaf fall into the water, thus reducing the rate of silt accumulation.

Further dredging of the northern two thirds of the Canal is proposed for Year 3 of the restoration programme. This will be carried out from a floating pontoon to avoid any direct impact to the banks of the canal and any water vole burrows that may be present.

This phased approach will reduce the level of impact to the ecological interest of the ponds. The park has records of 11 species of dragonfly and damselflies and it is likely that some or all of the water bodies will support dragonfly nymphs within the silt as well as other freshwater invertebrates. Clearance of silt from all of the identified water bodies over within a shorter time frame could have a significant adverse impact on these species.

November 2012

Holywells Park Restoration

Currently the areas identified for spreading the silt over the three year period are amenity managed improved grassland areas within the Park. These are of low intrinsic ecological value but form part of the mosaic of habitats within the park which is a designated Local Wildlife Site. The silt is likely to be high in nutrients, particularly nitrates and phosphates and spreading the silt on the grassland areas could without careful management, potentially lead to nitrophilous vegetation colonising.

In Policies NE 14 and 15 the Council states it will seek to conserve the nature conservation interest of County Wildlife Sites and will not grant planning permission for development which would be likely to result in the destruction of or damage to County Wildlife Sites.

De-silting smaller areas over a three year programme as proposed by David Arthurs (and previously by Matt Berry in his Pond report 2011) is a sensitive approach to the long-term management of the water bodies and will reduce the impact on freshwater invertebrates. This will allow for small scale disruption to one water body a year which will certainly mean that the likely level of impact on freshwater invertebrates and also water vole, which is known to be present in the park, will be reduced. It will allow for each water body to be checked prior to de-silting for the presence of water vole burrows in any of the banks and for appropriate mitigation to be put in place to avoid an impact on this legally protected species.

Trees

The park is characterised by a large number of mature and veteran trees, providing a valuable resource for a variety of wildlife including birds and both roosting and foraging bats.

There are proposals to remove some trees around some of the water bodies to reduce the level of shading. Specific trees have not been identified for removal and therefore it is not possible to undertake a detailed impact assessment at this stage.

Grasslands

The majority of the grasslands within the park have been improved and only limited areas of semi-improved and unimproved grassland are present (part of New Meadow and Kissing Gate Meadow and respectively). However, these areas of grassland and adjacent tall herb vegetation support a wide range of invertebrate species.

There are no proposals to change the current management regimes of the grassland which maintain a balance between the formal amenity managed grasslands and the semi-improved and unimproved grassland areas managed to promote their ecological value.

It is proposed that the silt that is removed from the ponds and Canal during Years 1-3 will be spread onto selected areas of the amenity grassland avoiding areas of ecological value. The silt will be spread to an average thickness of 100mm and will be left to dry out during the spring and summer and then re-sown in autumn.

4.2.4. Protected Species

Bats

Bats are protected under the Wildlife and Countryside Act 1981 (as amended) and under the Conservation of Habitats and Species Regulations 2010. Taken together, these make it an offence to:

- a) *Deliberately capture or intentionally take a bat*

November 2012

Holywells Park Restoration

- b) *Deliberately or intentionally kill or injure a bat*
- c) *To be in possession or control of any live or dead wild bat or any part of, or anything derived from a wild bat*
- d) *Damage or destroy a breeding site or resting place of a bat*
- e) *Intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection*
- f) *Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection*
- g) *Deliberately disturb any bat in such a way as to be likely significantly to affect:*
 - (i) *the ability of any significant group of animals of that species to survive, breed or rear or nurture their young; or*
 - (ii) *the local distribution or abundance of that species.*

Although the law provides strict protection to these species, it also allows this protection to be set aside (derogation) through the issuing of licences. The licences in England are currently determined by Natural England (NE) for development works. In accordance with the requirements of the Regulations (2010), a licence can only be issued where the following requirements are satisfied:

- a) The proposal is necessary *‘to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment’*
- b) *‘There is no satisfactory alternative’*
- c) The proposals *‘will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range’*.

Seven bat species are listed as Priority Species within the UK Biodiversity Action Plan and are listed as Species of Principal Importance under the provisions of the NERC Act 2006. There is also an Action Plan for bats within the Suffolk Local BAP (Suffolk Biodiversity Partnership, March 2012).

Bat Roosts- Buildings

Two bat roosts are present in the Stable Block and Orangery respectively. Both roosts appear to be used by individual bats. A single common pipistrelle *Pipistrellus pipistrellus* bat was recorded emerging from and re-entering during the two evening emergence surveys and the dawn survey during August and September 2012 indicating that this is a regularly used roost. A small number of pipistrelle bat droppings were located on the wall and mailbox beneath the gap between the boxed eave and wall of the southern elevation of the Stable Block. There is no evidence to suggest the presence of a maternity roost.

The unidentified bat that flew out of the north-west corner of the Orangery was only recorded during one of the evening emergence surveys (21/08/12). It is likely that this building is used occasionally by an individual bat/s. As the Orangery is enclosed in corrugated metal sheeting for protection, it is not possible to determine which features the bat/s may use for roosting purposes. However, the Orangery is a timber framed structure

November 2012

Holywells Park Restoration

with damaged glass windows and would be assessed as being sub-optimal for roosting bats. However, with the deterioration of the building it is considered likely that gaps may have developed within the timber frames or between the wooden frame and the brick wall forming the northern elevation. In addition, this elevation is partially covered in dense ivy which may be used by roosting bats as a temporary roost or may create suitable conditions for roosting bats within the building.

Due to its open nature and its current structural condition, the Orangery is considered unlikely to provide suitable opportunities for a maternity bat roost. The level of activity recorded during the surveys suggests the roost is used by an occasional individual or a low number of bats.

The Orangery restoration includes the removal of the metal sheeting and erection of scaffolding. The restoration will include repair or replacement of the timber framed windows, moulded cornices, pilasters and rainwater goods.

The presence of the external metal cladding is considered to be instrumental to the maintenance of the environmental conditions of the roost. Removal of the cladding and the restoration of the Orangery will lead to destruction of the roost. Without mitigation this would constitute an offence under the legislation.

Bat Roosts- Trees

There are proposals to remove some trees around some of the water bodies to reduce the level of shading. Specific trees have not yet been identified for removal and, therefore, it is not possible to undertake a detailed impact assessment in relation to roosting bats at this stage.

Nesting birds

All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition to this, for some rarer species (listed on Schedule 1 of the Act), it is an offence to disturb them while they are nest building or at or near a nest with eggs or young, or to disturb the dependent young of such a bird.

A number of bird species are also listed as UK Biodiversity Action Plan (BAP) Priority Species and Species of Principal Importance under the provisions of the NERC Act 2006.

The list of birds recorded within the park reflects the range of habitats within the park. The waterbodies, woodlands and mature trees within the parkland will provide both breeding and feeding resource to a variety of the bird species recorded. The park supports many species of high and medium conservation concern and the site is considered to be of Borough value in this respect.

Clearance of any vegetation from the banks of the water bodies and the de-silting programme could, if carried out during the breeding bird season, have an adverse impact on nesting birds and without mitigation lead to an offence under the legislation.

November 2012

Holywells Park Restoration

Water vole

Water voles are protected under the Wildlife and Countryside Act 1981 (as amended by the CROW Act 2000). This makes it an offence to kill, injure or take any water vole, damage, destroy or obstruct access to any place of shelter or protection that the animals are using, or disturb voles while they are using such a place. The Act provides a defence against the above where the action is the incidental result of a lawful operation that could not reasonably have been avoided.

Licences are available from Natural England to allow activities that would otherwise be an offence, including:

- for scientific or educational purposes;
- for the purposes of ringing or marking;
- for conserving wild mammals or introducing them into a particular area;
- preserving public health or public safety;
- preventing the spread of disease; and
- preventing serious damage to any form of property or to fisheries.

However, there are no licensing purposes that explicitly cover development activities or activities associated with improvement or maintenance of waterways.

Water vole is listed as Priority Species within the UK Biodiversity Action Plan and is listed as Species of Principal Importance under the provisions of the NERC Act 2006. There is also an Action Plan for water vole within the Suffolk Local BAP.

Targets within the Action Plan include the following:

“Ensure that development schemes in Suffolk do not affect the integrity of Water Vole populations.”

There is one report of a single water vole from Pond 5 within the Park. An assessment of the accessible sections of the banks of the ponds, moat and canal has revealed only limited opportunities for water voles to create burrows. The majority of the banks of the ponds are shallow and gently sloping into the water. The canal is considered to present water vole with the best foraging and burrowing opportunities together with Pond 5 which has suitable marginal vegetation for feeding and covers.

The Canal is heavily shaded by trees and scrub and there is little aquatic or marginal vegetation. The banks are overgrown with ivy and bramble and trees and present limited opportunities for water voles to create burrows. However as this waterbody is close to Pond 5, where water vole has been sighted, it is possible they may use the Canal and there may be active burrows within the eastern bank.

If water voles are present within the Canal, then it is possible that the proposed de-silting could lead to disturbance to water vole if they are present in the canal. The works are to be carried out from a floating pontoon to avoid any direct impact to the banks of the canal and any water vole burrows that may be present.

The proposed de-silting works to Ponds 1 and 3 are considered unlikely to have an impact on water vole due to the lack of suitable burrowing habitat on the banks and lack of marginal

November 2012

Holywells Park Restoration

vegetation. Pond 2 has some marginal vegetation and the banks may be suitable for burrowing.

Removal of the silt from the bankside using a long-reach excavator could, if water vole burrows are present, result in damage or destruction of burrows and disturbance to water vole that may be present.

Great crested newt

Great crested newt and their habitats in water and on land are protected under Section 41 of the Conservation of Habitats and Species Regulations 2011 and under the Wildlife and Countryside Act 1981 (as amended). Taken together, these make it an offence to:

- a) *Deliberately capture or intentionally take a great crested newt;*
- b) *Deliberately or intentionally kill or injure a great crested newt;*
- c) *To be in possession or control of any live or dead great crested newt or any part of, or anything derived from a great crested newt;*
- d) *Damage or destroy a breeding site or resting place of a great crested newt;*
- e) *Intentionally or recklessly obstruct access to any place that a great crested newt uses for shelter or protection;*
- f) *Intentionally or recklessly disturb a great crested newt while it is occupying a structure or place that it uses for shelter or protection;*
- g) *Deliberately disturb any great crested newt, in particular any disturbance which is likely to (i) impair their ability to survive, breed, reproduce or to rear or nurture their young; or in the case of hibernating or migratory species, to hibernate or migrate; or (ii) to affect significantly the local distribution or abundance of the species to which they belong.*

There are no records for great crested newt for the Park. Due to the high level of waterfowl using the water bodies, it is considered highly unlikely that great crested newts will be present in any of the water bodies. No impact on this species is anticipated.

Smooth newt, common frog and toad

Smooth newt and common toad and common frog are partially protected under Section 9(5) of the Wildlife and Countryside Act 1981 which prohibits sale, barter, exchange, transporting for sale and advertising to sell or to buy. Common toad is a UKBAP Priority Species and a Species of Principal Importance under the provisions of the NERC Act 2006.

As these species have been recorded within terrestrial habitats within the park, it is considered likely that they are using some of all of the waterbodies for breeding purposes. In order to avoid an impact on breeding amphibians, it is recommended that that if possible the de-silting works are carried out outside the breeding season when these species may be present within the waterbodies.

Grass snake

All British reptiles are protected under the Wildlife and Countryside Act 1981 (as amended) against intentional killing, injury or sale. In addition, all British reptiles are UKBAP Priority Species and Species of Principal Importance as listed under Section 41 NERC Act 2006.

November 2012

Holywells Park Restoration

Holywells Park supports some suitable habitat for grass snake, in particular the waterbodies which grass snake will use for feeding. The proposed de-silting could leave to disturbance of grass snake which may be present in the dense marginal and tall-herb vegetation of the Canal. However, the banks will not be affected and therefore it is considered unlikely there will be an impact on this species.

Stag Beetle

Stag Beetle is identified as a UK BAP Priority Species and as a Species of Principal Importance as listed under Section 41 NERC Act 2006.

There is one historical record of a stag beetle *Leucanus servus* (2003) from the north western woodland adjacent to Nacton Road. There are no proposals to disturb this area of woodland and no impact is anticipated on this species.

Invasive plant species

Himalayan balsam is listed in Schedule 9 (Part 2) of the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to plant or cause this introduced invasive plant to grow in the wild, effectively making it illegal to spread the plant during development operations.

Disturbance to the eastern bank of the Canal during the proposed de-silting works could cause the spread of this plant. However, if the de-silting is carried out from the floating pontoon it is unlikely that the works will disturb any Himalayan balsam present on the bank.

November 2012

Holywells Park Restoration

5.0 Recommendations for Further Survey Work, Avoidance and Mitigation Measures

5.1. Habitats

Grassland

It is recommended that the silt deposition areas are restricted to amenity grassland areas and that no silt to be placed on the area of semi-improved or unimproved neutral grassland within the park.

In order to ensure ruderal vegetation does not colonise the areas where silt has been spread, it will be necessary to monitor the vegetation and to instigate weed control if necessary.

Attractive flower-rich grassland areas could be encouraged within the Park, particularly within the improved amenity grassland, which is considered to be of low ecological value. Their creation would provide a valuable feeding resource for invertebrates, cover for small mammals and an increase in botanical diversity.

Waterbodies

Following the proposed restoration of some of the waterbodies and through appropriate long-term management the interest of the waterbodies could be improved.

In particular improvements in the water quality through the removal of silt and management/thinning of trees bordering the waterbodies could lead to a more diverse invertebrate population within the waterbodies. Reducing the level of shading and leaf fall into waterbodies will encourage the development of marginal and aquatic vegetation.

The bankside restoration provides opportunities for the re-grading of the banks which will also natural development or planting of appropriate emergent vegetation. Creation of areas of marginal vegetation on the remodelled margins of Ponds 1, 2, 3 and 4 would be desirable to increase opportunities for wildlife and increase the botanical diversity of the freshwater habitat.

5.2. Protected Species

Bat Roosts – Buildings

The Stable Block

A bat roost is present on the southern elevation of the Stable Block with the roost access point being gap between the boxed eave and wall. In addition, there is an unconfirmed bat roost on the northern elevation where droppings were located beneath a gap between the top of the wall and the wooden eaves.

The proposed restoration works to the Old Stable Block include cleaning out and an overhaul of gutters and redecorating external joinery including the wooden soffits and boxed eaves. In order to avoid committing an offence under the Conservation of Habitats and Species Regulations 2010 and there is a need to secure a European Protected Species Licence, the works need to ensure that the access to the bat roost remains unobstructed by scaffolding. Ideally the works should be carried out during late autumn/winter when bats are unlikely to

November 2012

Holywells Park Restoration

be present in this roost. The roost access point (gap between the eaves and wall) must be maintained in the long-term to allow bats to continue to use the roost.

In addition, there are features present on the Stable Block building and associated buildings surrounding the courtyard that are identified to have potential to support roosting bats (gaps beneath ridge tiles, lead flashing, gaps in brickwork of Clocktower and beneath roof slates). Based on the survey work undertaken, it is considered unlikely that bats are using these features for roosting purposes. It is recommended that works to replace ridge tiles or roof slates, re-pointing of any gaps in the brickwork are carried out under a watching brief by a suitable qualified and licenced ecologist. In the unlikely event that any bats are encountered during the restoration of the buildings, work should stop immediately and advice be sought from Natural England.

The proposed restoration works includes the lifting and re-pointing of the raised ridge tiles of the roof of the Old Stable Block. In order to create new opportunities for roosting bats, it is recommended that gaps under the ridge are created to provide bats with a roost under the ridge tiles. These gaps should measure between 60-80mm in length and 15mm wide.

The restoration proposals include the removal of dense ivy from the roof and wall of the western elevation. The ivy has the potential to support roosting bats or could obscure other roosting opportunities on the building. However, no bats were recorded re-emerging from or re-entering either the ivy or the building beneath the ivy. It is therefore recommended that the ivy is removed during the September – February period when bats (and nesting birds) are unlikely to be present.

The Orangery

The legislation allows for derogation from the legal protection and a licence will need to be secured from Natural England prior to the commencement of the works to the Orangery to enable the lawful removal of the bat roost. Securing an EPS licence will require the provision of compensatory roosting facilities either within the restored Orangery or nearby.

Bat roosts ~ Trees

It is recommended that only trees identified for removal are subject to a detailed daytime bat survey in advance of any tree works to identify whether the trees support any features with the potential to support roosting bats. Any trees with features may require more detailed survey work such as aerial tree survey or dawn re-entry surveys to determine whether a bat roost is present. If it is necessary to undertake any works to trees with confirmed bat roosts an EPSL application may be required.

Water vole

As the water vole's place of shelter is protected under the Wildlife and Countryside Act 1981 (as amended), it is an offence to destroy or obstruct access to burrows or to disturb water voles whilst they are using such a place. Due to the proposed restoration of some of the waterbodies of the park it would be advisable to survey for burrows and any signs of water vole activity prior to each phase of the restoration of the individual waterbodies. This should be undertaken when the vegetation has died back (late autumn or early spring) allowing the banks to be thoroughly searched.

November 2012

Holywells Park Restoration

Depending on the results of the surveys there may be a need to adopt mitigation measures to avoid an impact on any water vole burrows and to avoid disturbance to water voles if they are present within a particular pond.

Nesting birds

The pond de-silting and any vegetation clearance, including the removal of the ivy from the western elevation of the Stable Block, should be timed to avoid the bird breeding season which generally runs from late February until mid-August.

Amphibians and reptiles

In order to continue to provide suitable habitats for grass snake, smooth newt and toad, areas of tall herb vegetation along the canal and part of Pond 7 and Pond 8 should be maintained. Ensuring that some of the ponds are managed in the future as fish and wildfowl free waterbodies, may allow suitable aquatic and marginal vegetation to develop enhancing opportunities for breeding amphibians and other wildlife.

5.3. Fish

A fish survey of Ponds 1, 2 and 3 and the Moat and the Canal should be undertaken by a specialist to identify if fish are present and to inform the process of capture and translocation. The process of capture and translocation would need to be carried out by a specialist fishery consultant and written consent will need to be secured from the Environment Agency prior to the operation proceeding.

5.4. Invasive Plant Species

It is recommended that the Himalayan balsam bordering the Canal is controlled by hand pulling as part of the wider management plan for the park. This should be carried annually and before the plant sets seed. Restoration works to the Canal will need to avoid spreading the plant which would be in contravention of the legislation.

Table 6 provides a summary of the above recommendations.

Table 6: Potential Avoidance, Mitigation, Compensation and Enhancement Measures

Receptor	Recommended Measure	Reason	Relevance to Planning Policy/Legislation
County Wildlife Site/ Unimproved grasslands	Restrict the silt deposition areas to amenity grassland areas and that no silt to be placed on the area of semi-improved or unimproved neutral grassland within the park. In order to ensure ruderal vegetation does not colonise the areas where silt has been	To conserve the nature conservation interest of the County Wildlife Site	Policies NE 14 and 15 of the Local Plan UK BAP

November 2012

Holywells Park Restoration

	spread, it will be necessary to monitor the vegetation and to instigate weed control if necessary.		
Grasslands	Attractive flower-rich grassland areas could be encouraged within the Park, particularly within the improved amenity grassland, which is considered to be of low ecological value. Their creation would provide a valuable feeding resource for invertebrates, cover for small mammals and an increase in botanical diversity.	Increase botanical diversity and provide additional feeding resource for invertebrates.	Ipswich Borough Council Core Strategy (December 2011) Policy CS4
Waterbodies	The bankside restoration provides opportunities for the re-grading of the banks which will also natural development or planting of appropriate emergent vegetation. Creation of areas of marginal vegetation on the remodelled margins of Ponds 1, 2, 3 and 4 would be desirable	To enhance the wildlife value of the waterbodies To increase opportunities for wildlife and increase the botanical diversity of the freshwater habitat	Ipswich Borough Council Core Strategy (December 2011) Policy CS4
Waterbodies	Management of trees bordering the waterbodies – thinning or selective removal	To reduce the level of shading of waterbodies and reduce leaf fall into ponds –removal of shading will encourage the development of marginal and aquatic vegetation	Ipswich Borough Council Core Strategy (December 2011) Policy CS4

November 2012

Holywells Park Restoration

<p>Bat roost – restoration of the Stable Block</p>	<p>The works to the southern elevation of the Stable Block need to ensure that the access to the bat roost behind the boxed eaves remains unobstructed by scaffolding. Ideally the works should be carried out during late autumn/winter when bats are unlikely to be present in this roost. The roost access point (gap between the eaves and wall) must be maintained in the long-term to allow bats to continue to use the roost</p>	<p>To avoid an impact on the bat roost and bat/s using the roost</p> <p>To ensure long-term access for bats to the roost and to avoid committing an offence (obstruction)</p>	<p>Wildlife and Countryside Act 1981 Habitat and Species Regulations 2010</p>
<p>Bats – restoration of Stable Block</p>	<p>Features present on the Stable Block building and associated buildings surrounding the courtyard that are identified to have potential to support roosting bats (gaps beneath ridge tiles, lead flashing, gaps in brickwork of Clocktower and beneath roof tiles).</p> <p>It is recommended that these works are carried out under a watching brief by a suitable qualified and licenced ecologist. In the unlikely event that any bats are encountered during the restoration of the buildings, work should stop immediately and advice be sought be from Natural England.</p>		<p>Wildlife and Countryside Act 1981 Habitat and Species Regulations 2010</p>
<p>Bats – enhancement</p>	<p>As part of the restoration of the Stable Block roof, it is recommended that gaps under the ridge are created to provide bats with a roost under the ridge tiles. These gaps should measure between 60-80mm in length and 15mm wide</p>	<p>To create new opportunities for roosting bats</p>	<p>Wildlife and Countryside Act 1981 Habitat and Species Regulations 2010</p>

November 2012

Holywells Park Restoration

Bat roost-restoration of the Orangery	An application for a EPS Licence will be required Compensatory measures will be required either within the restored Orangery or nearby	To lawfully destroy the bat roost	Wildlife and Countryside Act 1981 Habitat and Species Regulations 2010
Bats- external lighting	Locate permanent lighting away from semi natural habitat features and the known bat roost or new roosting features	To prevent disturbance to roosting, commuting or foraging bats.	Wildlife and Countryside Act 1981 Habitat and Species Regulations 2010
Bats- trees	Any trees identified for removal are subject to a detailed daytime bat survey in advance of any tree works to identify whether the trees support any features with the potential to support roosting bats	To identify the presence/absence of roosting bats	Wildlife and Countryside Act 1981 Habitat and Species Regulations 2010
Water vole- de-silting works to waterbodies	Survey for burrows and any signs of water vole activity prior to each phase of the restoration of the individual waterbodies. This should be undertaken when the vegetation has died back (late autumn or early spring) allowing the banks to be thoroughly searched. Depending on the results of the surveys there may be a need to adopt mitigation measures to avoid an impact on any water vole burrows and to avoid disturbance to water voles if they are present within a particular pond.		Wildlife and Countryside Act 1981
Water vole – de-silting works to Canal	Avoid disturbance to the banks of the Canal during the de-silting process	To avoid an impact on any water vole burrows that may be present	Wildlife and Countryside Act 1981
Nesting birds – restoration	Avoid removal of dense ivy on western elevation of the Stable	To avoid an impact on nesting birds	Wildlife and Countryside Act

November 2012

Holywells Park Restoration

of buildings and waterbodies	Block/toilet, removal of vegetation bordering waterbodies and works/removal of any trees de-silting of waterbodies to avoid the months March to August inclusive.		1981
Fish – de-silting of waterbodies	Undertake a fish survey using a fish specialist of the waterbodies to be restored	To identify if fish are present and to inform a catch and translocation programme	
Amphibians and reptiles	Retain tall herb vegetation along the Canal and Pond 7 and Pond 8 Ensuring that some of the ponds are managed in the future as fish and wildfowl free waterbodies, may allow suitable aquatic and marginal vegetation to develop enhancing opportunities for breeding amphibians and other wildlife	To continue to provide suitable habitats for grass snake, smooth newt and toad	Wildlife and Countryside Act 1981
Invasive species – Himalayan Balsam	Avoid disturbance to the bankside vegetation during de-silting works Remove Himalayan balsam from eastern bank of The Canal by hand pulling annually as part of on-going park management	To avoid spreading Himalayan Balsam	Wildlife and Countryside Act 1981

November 2012

Holywells Park Restoration

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November 2012

Holywells Park Restoration

6.0 Appendix 1: Policy Guidance

National Planning Policy Framework

The government published the National Planning Policy Framework (NPPF) on 27th March 2012. The NPPF states that, “the planning system should contribute to and enhance the natural and local environment by:

- a) *Protecting and enhancing valued landscapes, geological conservation interests and soils;*
- b) *Recognising the wider benefits of ecosystem services;*
- c) *Minimising impacts on biodiversity and providing net gains in biodiversity, where possible contributing to the Government’s commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- d) *Preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability;*

Planning applications and biodiversity

“When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- a) *If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) *Development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;*
- c) *Opportunities to incorporate biodiversity in and around developments should be encouraged;*
- d) *Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss.”*

In paragraph 125 the NPPF stipulates that ‘*by encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.*’ This is relevant if any external lighting of the restored buildings is proposed.

Species and Habitats of Principal Importance

The NPPF (paragraph 117) indicates that local authorities should take measures to “*promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species*” linking to national and local targets through local planning policies. Priority species are those species shown on the England Biodiversity List published by the Secretary of State under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Planning authorities have a duty under Section 40 of the

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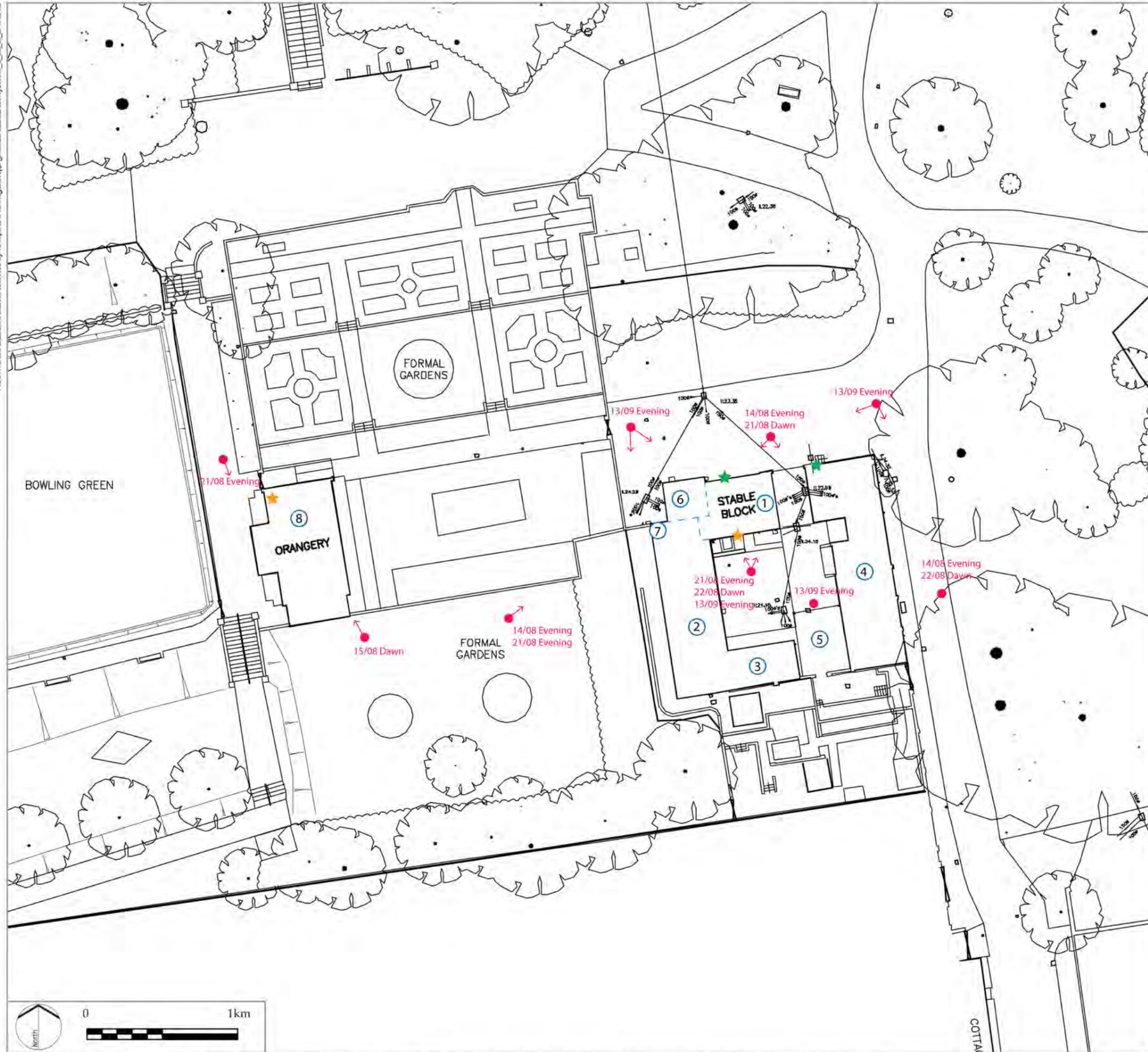
Holywells Park Restoration

NERC Act to have regard to priority species and habitats in exercising their functions including development control and planning.

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7.0 Appendix 2: Drawings and Photos

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LEGEND

- 1 Building number
- Surveyor location and dates
- ★ Confirmed roost
- ★ Possible roost

REV.	DESCRIPTION	APP. DATE
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LDĀDESIGN

PROJECT TITLE
HOLYWELLS PARK

DRAWING TITLE
Bat Survey: Location of Surveyors, Building Numbers and Confirmed and Possible Roosts

ISSUED BY	Peterborough	T: 01733 310 471
DATE	Oct 2012	DRAWN RSC
SCALE@A3	1:2500	CHECKED PH
STATUS	Final	APPROVED KK

DWG. NO. 3361_001_B

No dimensions are to be scaled from this drawing.
 All dimensions are to be checked on site.
 Area measurements for indicative purposes only.
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 Sources: Ordnance Survey...



A STABLE BLOCK - SECTION A-A
AS EXISTING



B STABLE BLOCK - SECTION B-B
AS EXISTING

0 6
SCALE 1:50 (A1)
SCALE 1:100 (A3)
METRES

REV. DESCRIPTION APP. DATE

LD&A DESIGN

PROJECT TITLE
HOLYWELLS PARK

DRAWING TITLE
Confirmed Roost in Stable Block

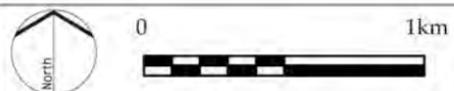
ISSUED BY	Peterborough	T: 01733 310 471	
DATE	Oct 2012	DRAWN	RSC
SCALE@A3	1:2500	CHECKED	PH
STATUS	Final	APPROVED	KK

DWG. NO. 3361_001_C

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All dimensions are to be checked on site.
Area measurements for indicative purposes only.

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Sources: Ordnance Survey...



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Photo 1 Myrtle Road Meadow and New Meadow in distance



Photo 2 Southern half of New Meadow -managed as hay meadow



Photo 3 Kissing Gate Meadow



Photo 4 Lower terrace garden



Photo 5 Upper terrace garden



Photo 6 The Dell Pond

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Photo 7 Pond 1



Photo 8 Pond 2



Photo 9 Pond 3



Photo 10 Pond 4



Photo 11 The Moat



Photo 12 Pond 5

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Photo 13 Pond 6



Photo 14 Pond 7



Photo 15 Pond 8

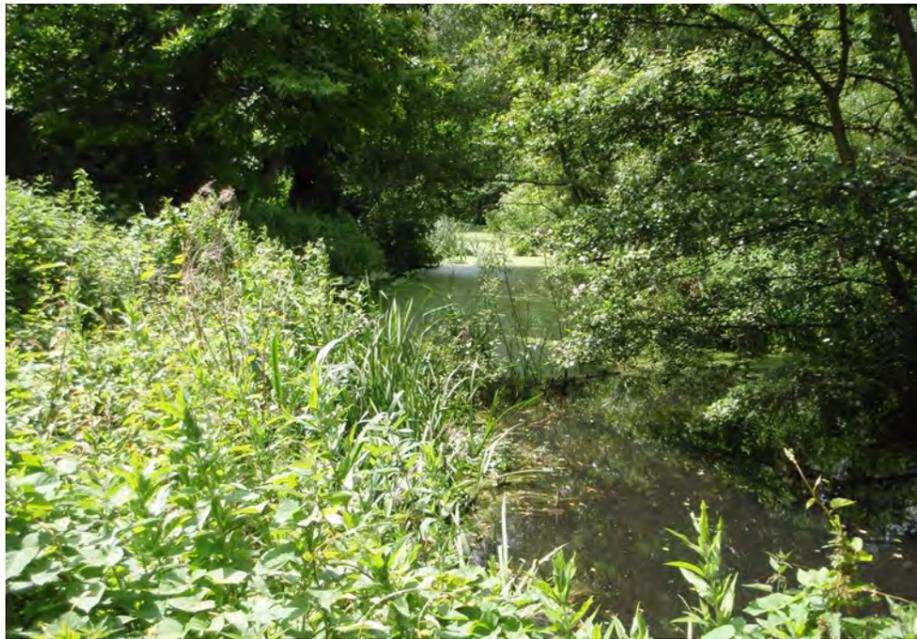


Photo 16 The Canal

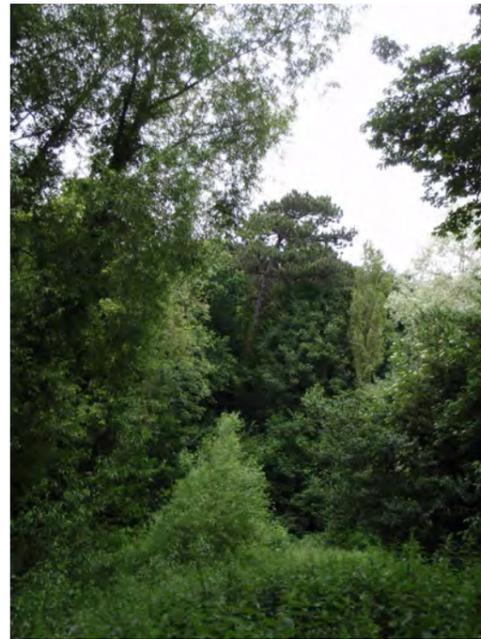


Photo 18 Broadleaved woodland in north west area of the park



Photo 19 Southern elevation of Stable Block showing gaps beneath ridge tiles

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Photo 20 Gaps beneath ridge tiles and lead flashing on southern elevation of Stable Block



Photo 21 Gap between boxed eave and wall -location of confirmed bat roost



Photo 22 Eastern elevation of Stable Block



Photo 23 Western Stable Block building



Photo 24 Eastern elevation of Stable block complex



Photo 25 Northern side of clock tower showing gaps in mortar

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Photo 26 Toilet building with dense ivy on roof and western elevation



Photo 27 The Conservatory



Photo 28 Bat boxes on pine tree on western edge of Moat

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PROJECT TITLE
 HOLYWELLS PARK

DRAWING TITLE
 Photos

January 2013
Holywells Park, Ipswich

Appendix 13 Tree Management Strategy



ARBORICULTURAL FIVE-YEAR MAINTENANCE STRATEGY

HOLYWELLS PARK, IPSWICH

Date: December 2012
Our Ref: JSL2076_770 revA

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Status:	For Comment

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CONTENTS

EXECUTIVE SUMMARY	1
1 INTRODUCTION	2
2 TREES, WOODLANDS AND POLICY CONTEXT	4
3 EVALUATION AND ANALYSIS	7
4 MANAGEMENT OBJECTIVES & PRINCIPLES	9

APPENDICES

1- TREE LAW

2 - COMPARTMENT SPECIFIC MANAGEMENT SCHEDULES

3 - WOODLAND COMPARTMENT PLAN

4 - SITE IMAGES

5 - TREE AGE STRUCTURE (ARBORTRACK)

6 - SPECIES DIVERSITY (ARBORTRACK)

7 - CAVAT VALUE OF A TREE POPULATION (CAVAT)

8 - SUPPLEMENTARY TREE & WOODLAND PLANTING PALETTE

9 - TYPICAL PROGRAMME OF OPERATIONS

EXECUTIVE SUMMARY

- This document has been prepared by RPS on behalf of LDA-Design and details the five year maintenance of the trees and woodland in Holywells Park, Ipswich.
- The visitor experience would be enhanced with the selective introduction of exotic, parkland and supplementary arboretum species. Additionally, a Tree Trail guide may be a way of encouraging residents and visitors to further appreciate how important the trees are to the enjoyment of the park.
- Tree management should seek to balance amenity value, conservation objectives and safety requirements. The recommended tree works and compartment specific prescriptions are detailed in the accompanying schedules.
- The Ipswich Tree Management Policy (2010) sets out the methodology for the Quantified Tree Risk Assessment (QTRA). Adopted by the Council, QTRA applies established and accepted risk management principles to tree safety management. With QTRA the land use, presence and nature of the target is quantified and considered against the tree or tree part in terms of both impact potential and probability of failure to calculate the probability of harm. The frequency and intensity of inspections, tree removal, tree surgery works should be calculated by the guidance set out in the Ipswich Tree Management Policy (2010) and QTRA.
- Some of the woodland appears to have limited vegetation management in recent years and this has meant a number of trees now have the potential to present hazards. It is particularly important that the woodland plan manages risk and maintains visitor safety and executes full legal obligations with regard to these matters. Future management should take into account the projected increase of use as a result of the proposed restoration.
- It is recommended that a programme of periodic arboricultural assessments be undertaken in order to regularly assess the full health and safety of all trees both in full leaf and bare stem. The assessments should continue to prioritize areas based on levels of access and presence of target (i.e. exposure of people to hazard) and accord with arboricultural advice, taking account of relevant arboricultural factors (where known) that affect safety such as the age class, condition, size and species of the trees. This should be undertaken with reference with QTRA.
- The management of the existing woodland stand will be minimal and removal of trees will only occur for public safety. New tree planting should concentrate on increasing the biodiversity of the woodland, helping the landscape integration into the wider site, maintaining a wide collection of parkland trees and strengthening the stability of the woodland edge.

1 INTRODUCTION

- 1.1 This document has been prepared by RPS on behalf of LDA-Design and details the five year maintenance of the trees and woodland in Holywells Park, Ipswich.
- 1.2 The site was visited in November 2012 by RPS to assess the existing vegetation and to gather information to be used within the Woodland Management Plan.
- 1.3 The initial survey was pre-empted by an informal site 'walk-over' accompanied by Andy Whalley (Assistant Operations Manager - Arboriculture and Countryside) and Steve Leech (Tree inspector) of Ipswich Borough Council. The broad expectations and scope of the report were discussed.

Extent of park and description

- 1.4 Hollywells Park is a 67-acre historic park located approximately one mile south-east of Ipswich town centre. Roughly triangular in shape the park has sweeping valley topography with a series of ponds, watercourses, steep sided wooded dells and open parkland.
- 1.5 The eastern side of the park is heavily wooded with a mixture of mature hardwood and pine trees and an under - and mid story of more recent self seeded trees and shrubs. The central core of the site is typified by open sweeping grass parkland with many fine large solitary trees and tree groups and avenues. The western boundary is formed by a moat, lined with waterside vegetation.
- 1.6 The park is well used by the public and the centre of the site has large children's play area and opportunities for grass play. The site is criss-crossed by a series of formal and informal footpaths. In the south western tip of the site the historic orchard and meadowlands formed of three rectangular spaces are divided by hedgerows and managed for wildlife and amenity.
- 1.7 The park is well treed and forms the most important massing of vegetation in the centre of Holywells Ward. This is illustrated by the Council's projected data on trees utilising arbortrack tree management software.

Survey Methodology

- 1.8 The investigative survey consisted of a broad visual inspection of key trees and vegetation zones and compartments from the ground. The approximate location of the trees was identified from a topographical survey of the site undertaken by EDI Surveys Ltd in November 2004 and updated in September 2012. The trees were subsequently mapped and species noted by IBC using the GIS based platform Arbortrack.
- 1.9 The findings were recorded in a schedule (appendix 2) and plan (appendix 3) noting the broad species make-up, age and height of the compartments. Similarly, key individual trees were recorded as target notes. Any notable trees omitted or lost since the production of the original survey were also recorded.
- 1.10 Maintenance recommendations were recorded in the schedule detailing works for the compartments and where appropriate provide specific management recommendations for individual trees. The recommendations prioritised to focus the works, taking into regard the

proximity of nearby land uses (i.e. closeness to sensitive receptors such as play areas or busy footpaths) and the management systems which are in place already.

Scope of the report

- 1.11 This report is concerned with trees within and to the boundary of Hollywells Park, Ipswich.
- 1.12 The inspection has been carried out from ground level using visual observation methods only. Trees are living, dynamic organisms whose health and condition can change rapidly. Trees should be checked on a regular basis.
- 1.13 The survey consisted of a brief review of the existing tree and woodland stock; it does not provide a full and comprehensive summary of all trees.
- 1.14 This report does not constitute a detailed works specification. The applicable BS standards and management literature are referenced to form the basis and enable the production of a specification/ schedule of works.

2 TREES, WOODLANDS AND POLICY CONTEXT

Policy Context

- 2.1 Trees are of enormous importance to the landscape. They are widely appreciated for enhancing the environment and providing wildlife habitat and can have great historical, societal and economic value.
- 2.2 This is recognised by the government and set out in a number of policy documents which highlight the importance of planting and protecting trees and this is supported by a wide range of good practice guidance produced nationally by the Forestry Commission, Forest Research and Natural England.
- 2.3 Ipswich Borough Council have produced several policy documents which refer to the provision of amenity in the area, *Transforming Ipswich* refers to the delivery of quality services for the people of Ipswich. *Clean and Green Ipswich* aims to raise the level of amenity provision in the local area and *Expanding Ipswich* to help improve the profile of the town. Strengthening the Community of Ipswich Park will benefit the wider community and promote the importance of a restored park landscape. *Vibrant Ipswich*, to meet the goal of ensuring a comprehensive range of leisure and cultural opportunities for all people who live in and visit Ipswich.
- 2.4 Ipswich Borough Council' Corporate Plan *Build a Better Ipswich* states the intention to make Ipswich a cleaner, more attractive and more sustainable place to live, work and visit and preserve, aiming to enhance the wildlife areas of Ipswich and encourage greater understanding of nature.
- 2.5 The Council has most recently produced a *Draft Open Space and Biodiversity Policy / Strategy 2013-2023* to examine the provision of open space in terms of its quantity, quality, accessibility and management, identifying opportunities to increase supply, improve standards and satisfy demand. The Policy aims to underline the importance of this land asset in meeting social and environmental needs, providing a very cost effective way of delivering a variety of benefits across all sections of the community and serving as a 'quality of life' indicator.
- 2.6 The importance of habitat and biodiversity is enshrined in *Ipswich Landscape and Wildlife Strategy (2004 – 2006)* which identified the need for significant investment in Ipswich's Historic Parks.
- 2.7 The *Tree Management Policy (2010)* produced by Ipswich Borough Council is subtitled as a guide to how the council deals with trees through its function as a Landowner, Highway agent and Local Authority. The policy is set out as the provision for the necessary framework under which the borough's trees will be managed and protected. It also provides the standard by which any future Tree Strategy will be gauged. As well as setting out guidance on managing the existing tree stock it provides the stimulus for local initiatives and future actions.
- 2.8 The Tree Management Plan aims to ensure trees and woodlands continue to contribute to a high quality natural environment, safeguarding and improving the management of trees and woodlands, acknowledging the impact of climate and advocating new tree and woodland planting where appropriate.

2.9 The Plan supports the view that a more proactive approach to management needs to be encouraged such as coppicing, the maintenance and improvement of glades, the use of species native to Ipswich, the creation of uneven aged stands, pollarding or heavy pruning in place of felling, and the retention, where safe, of dead wood. The enhancement of biodiversity in Ipswich and the use of native tree species, where appropriate, to benefit Biodiversity Action Plan (BAP) and other species is also promoted.

2.10 The plan aims to help enable Ipswich's community to take greater ownership of their local trees and woodlands, especially in deprived areas and more excluded communities and localities and improve the accessibility of Ipswich's trees and woodlands to all. The contribution of the trees and woodlands in providing attractive environments for business, leisure and tourism is recognised. It states the aim to source the financial resources needed to realise the full range of benefits from Ipswich's trees and woodlands trees and woodlands are sufficient and appropriately trained

2.11 The document *Holywells Park, Ipswich Outline Management and Maintenance Plan 2009 – 2019* summarises the management as a

...balance of visitor and wildlife needs will exist through effective zoning of different activities across the Park. Holywells Park shall be an example of sustainable, multi-functional greenspace management.

2.12 Of particular relevance to trees and woods the plan highlights the following and any future management shall accord with this:

- Deadwood is retained where possible and log piles are built in appropriate locations for habitat and as an educational resource.
- Continue the practice of traditional woodland coppicing and the reduction of undesirable species such as Horse Chestnut and Sycamore replaced by species more beneficial to wildlife.
- Future management of the veteran trees should address the generation gap between existing veteran / mature trees via a planned planting scheme, ideally using native species.
- Management should also restrict lower branch pruning of trees and subsequent regular mowing of grass within the width of the trees canopy, particularly veteran specimens.
- Visitor management should consider pressure and disturbance to wildlife. Access needs to be provided but not at the detriment of wildlife.

HLF funded Restoration Project

2.13 The plans to restore Holywells Park are wide ranging and include the protection, restoration and recreation of historic landscape features and the removal/ re-design of later features which have had an adverse impact on its historical qualities.

2.14 All retained trees within close proximity of the future restoration works will require protection in accordance with BS 5837:2012 "Trees in Relation to Design, Demolition and Construction - Recommendations". This Council's data on trees and the interrogation of their arbortrack tree

management software can help provide the relevant information on tree root protection areas (RPA) and shade patterns.

Current designations

- 2.15 The following designations are currently in place on the site. Any management should accord with national and regional legislation relating to its status as a County Wildlife Site (CWS) a County Wildlife Site Conservation Area and a Regionally Important Geological and Geomorphologic Site (RIGS).

Planning for the Historic Environment

- 2.16 The Planning (Listed Building & Conservation Areas) Act 1990 states that: "Every local planning authority shall, from time to time, determine which parts of their area are areas of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance and shall designate such areas as Conservation Areas". Planning Policy Statement 5: Planning for the Historic Environment also makes clear: "The Government's overarching aim is that the historic environment and its heritage assets should be conserved and enjoyed for the quality of life they bring to this and future generations."
- 2.17 Holywells Park has previously been the subject of a bid for inclusion on the English Register of Historic Parks and Gardens. Although English Heritage felt the Park did not justify inclusion, this view is now changing and it was considered to be of sufficient merit by the Heritage Lottery Fund to be included in the Urban Parks Programme.
- 2.18 Designation of the Park as a conservation area in September 2003 recognized its special status in the absence of inclusion on the Register and also allowed consideration of additional buildings of merit such as the Margaret Catchpole public house listed Grade II* and buildings of special local interest adjacent to the Park. The Park itself has two listed buildings, the Stable Block and Orangery both listed Grade II.

3 EVALUATION AND ANALYSIS

Generally

- 3.1 In its current state the woodland is rich in ecology, including deadwood habitat and within the wider urban setting add considerably to the biodiversity of the area. The challenge of the woodland management plan for the site is to achieve a reasonable balance between amenity value as a public recreational space, conservation objectives and the fulfilment legal safety requirements.

Woodland

- 3.2 Parts of the woodland appears to have limited vegetation management in recent years and this has meant a number of trees now have the potential to present hazards. It is particularly important that the woodland plan manages risk and maintains visitor safety and executes full legal obligations with regard to these matters. The must take into account the projected increase of use as a result of the restoration project.
- 3.3 In the main the trees within the woodland are of a mature age structure with large mature Oak, Sweet Chestnut and Beech woodland trees (see Appendix 5). The pioneer regeneration is generally limited to Sycamore. In the main the trees appear to be in general good health. A number of larger late-mature trees are in the later stages of decline or moribund.
- 3.4 Given the mature structure of the woodland many of the trees are effectively mutually sheltering one another and consideration must be given to the viability of the extensive introduction of new planting or unnecessary removal of trees to creating gaps in the canopy for the creation of glades.
- 3.5 A number are mature and in a small number of cases veteran, with some standing deadwood or in various stages of decay. These provide excellent habitat for a broad range of invertebrates and wildlife, and within the woodland setting provide a monolithic quality.
- 3.6 The species structure (see Appendix 6) appears to be dominated by Sycamore with Oak, Ash, and Elm. The shrub mid-storey is Holly-rich.

Planting

- 3.7 New planting should be reserved for woodland edges, avenue reinforcement, parkland openings or areas subject to potential windthrow. Where self seeded native trees and desirable species such as Sweet Chestnut are present the promotion of natural regeneration will not only continue the process of natural succession but will allow the furtherance of the specific gene pool within the woodland. Management should seek to encourage and control selective regeneration and where necessary protect such growth from browsing.
- 3.8 The woodland is rich in other native tree species such as Holly and Hornbeam and has a varied shrub and ground flora rich understory and this should also be encouraged.

Succession planting

- 3.9 Succession planting and natural regeneration should be encouraged with the aim of creating wooded areas and trees of a varied age range and species structure. This will help ensure that as trees reach senescence successors will provide continued cover.
- 3.10 Staggered periodic coppice and pollard regimes will provide a varied tree stand. Tree surgery may also be highly desirable to increase the stability and longevity of vulnerable veteran trees, particularly where successors are not abundant. Work should be phased to avoid treating all the trees at one time.
- 3.11 Trees with potential to become the veteran trees of the future should be identified, and conserved. Some tree surgery or even pollarding can be desirable to help develop appropriate crowns. This allows associated flora and fauna to move between trees, and also reduces the risks of drought or storm affecting all the trees. Establishing a range of potential successors close to existing veteran trees can be very important to ensure species that are dependent on the old trees can move to a new host.

Future Use

- 3.12 Following the restoration works a projected increase in use may add to the pressure on the footpath. Compaction along the footpath routes could have detrimental effect on nearby trees and this should be taken into consideration managing Health and Safety. In addition to addressing any Health and Safety measures management should seek to promote an exclusive use of a primary footpaths rather than the encouragement of numerous desire footpaths. It is recommended that compaction is better concentrated on the main metalled footpaths and within the open glade areas where user safety can be better controlled rather than an increase in the scale of compaction over the entire woodland.

Monetary evaluation of the trees

- 3.13 CAVAT (Capital Asset Value for Amenity Trees) provides for the first time in the UK a method specifically intended for managing trees as public assets not liabilities. It is understood that the Council will use this methodology as strategic tool and an aid to decision-making in relation to the tree stock as a whole, but also to be applicable to individual cases, where the value of a single tree needs to be expressed in monetary terms is required.
- 3.14 The CAVAT evaluation of the trees and woodland at Holywells is greatly beneficial, focusing on wider benefits of trees to communities rather than pure visual amenity. This further supports the positive financial impact of pro-actively managing trees could be useful in sourcing the financial resources needed to further realise the full range of benefits. See Appendix 7 for an example CAVAT model For Holywells Park.

4 MANAGEMENT OBJECTIVES & PRINCIPLES

Generally

- 4.1 Tree management should seek to balance landscape recreational amenity, conservation and safety requirements. The recommended trees works and compartment specific prescriptions are detailed in the accompanying schedules (Appendix 2).
- 4.2 The public, especially local residents and the Friends of Holywells Park should be informed of major tree works including pruning, removal and replacement that are likely to affect them. It may be valuable to instigate community planting schemes to raise awareness and appreciation of trees and encourage members of the public to report concerns in the future.

Management for Wildlife

- 4.3 Where safety requirements allow, to benefit to local habitat, we recommend the following:
- Larger fallen trees and root plates are retained.
 - Unsafe trees and shrubs are reduced to coppice stems or hulk.
 - Stumps are retained as standing deadwood hulks
 - In wooded areas which possess restricted access, a selective volume of standing deadwood is retained.
 - Select arisings are sawn into logs, retained and stacked into discretely placed deadwood piles.
- 4.4 Given the potential for Ivy to provide valuable wildlife habitat it is recommended that its removal is prioritised to the trees bounding the footpaths, areas where people are likely to congregate. Any decisions regarding Ivy should be carried following consultation with the Wildlife Rangers. Each tree should be judged on its own merit and Ivy should only be reduced (not totally eradicated or removed) when the stability or life of the tree is threatened.
- 4.5 Due to the very high wildlife value of Ivy, even more notably in Holywells due to the presence of Golden Hoverfly (endangered BAP species reliant on Ivy nectar and recorded at less than 10 sites in the UK); it should be embraced as a positive feature and managed accordingly.
- 4.6 Given the potential for Ivy to provide roosting opportunities for bats and habitat for species such as the Golden Hover Fly. It is essential to thoroughly assess the habitat value prior to and tree works or removal of Ivy and this may well require the services of a suitably qualified and experienced ecologist.
- 4.7 Should wildlife surveys detect the presence of significant wildlife species appropriate mitigation works should be undertaken in advance of any works. This may include, for example, where Golden Hoverfly larval host trees are identified (or have been identified historically) and will consist of the translocation of larvae to suitable alternative wet rot hole sites in other trees.

- 4.8 Where the removal of Ivy is absolutely unavoidable to avoid the immediate loss of potential habitat it is generally accepted method that each Ivy stem is severed around the tree trunk at around waist height and a section of stem removed to prevent regrowth thus killing the Ivy. The leaves will turn brown and eventually the Ivy stems will rot, disintegrate and fall way from the tree branches.
- 4.9 A number of trees have hanging limbs and structurally unstable deadwood which presents a risk. However, the unnecessary loss of deadwood habitats should be avoided when making recommendations for tree works/ management, particularly if legally protected species are using the tree. Thus, in the absence of any significant risk to people or property, deadwood should not be removed.
- 4.10 Similarly, deadwood removal will be concentrated to existing trees where a site user is present so as to avoid the unnecessary loss of habitats. Where removal of limbs and braches is unavoidable it should be undertaken by conservation cutting. Conservation cutting may be carried out on live or deadwood or indeed the retention of deadwood and attempts to mimic the ways a tree breaks naturally. The jagged stubs and surfaces produced when a limb detaches naturally, provide many more habitats for wildlife than the smooth cut of a saw. Where it is safe to do so the larger standing deadwood shall be crown reduced to single trunk to produce invertebrate towers.
- 4.11 The control of alien and highly invasive species where applicable shall accord with Environment Agency guidelines and relevant statutory regulations.
- 4.12 Sycamore should be managed appropriately throughout the Park. The principle being to hold it at a relatively low level, in favour of other tree species that are accepted as more beneficial to wildlife.
- 4.13 Much of the vegetation encountered on the site has suffered severe damage from the sizable population of Grey Squirrels. Squirrels tend to target planted or naturally regenerated trees aged between 10 and 40 years. Sycamore, a prevalent tree species on the site is particularly vulnerable to damage which includes stripping of bark and damage to tree buds, shoots. Fungal invasion and rotting at the damage site often results and a reduction in general vigour.
- 4.14 Underplanting and coppice regime planting will be completed as required to infill significant gaps within the woodland canopy; these will include species contained in appendix 5.
- 4.15 Nesting birds are protected by law and any removal / tree works should not be carried out during the bird nesting season (March-August inclusive). Should any vegetation be outlined for removal during this period, then an ecological survey would be required to check that no nesting birds are present. Should any be found, works shall not be carried out until such a time that a suitably qualified ecologist has certified that the fledglings have left the nest. A visual inspection for bats shall also be carried on mature / ivy clad trees prior to commencing operations.

Veteran Trees

- 4.16 A number of the trees demonstrate features characteristic of a veteran tree including a girth large for the particular tree species, major trunk cavities and is of high aesthetic interest. With regard veteran trees any management actions should be made in consideration of the Planning guidance Planning Policy Statement 9: Biodiversity and Geological Conservation which notes

that veteran trees have value for biodiversity. This accords with Ipswich Borough Council policy on veteran trees.

4.17 In recognition of this and given the abundance of potential wildlife habitats associated with veteran trees these should be managed and conserved to maximise their habitat value and life span any management and accord with the current environmental legislation primarily the Wildlife and Countryside Act 1981 and renowned publications such as *Veteran Trees: Guide to Good Management* (Read. H, 2000). Wherever possible, reference should be made to advances in environmental arboriculture for example coronet-cuts, natural fracture techniques and deadwood management many are demonstrated in BS3998:2010 *Tree Works - Recommendations*.

4.18 With a particularly valuable tree with serious structural faults it may be decided it may be retained it and reduce the proximity of the target to the tree this could be achieved by retaining or encouraging the formation of physical barriers (e.g. dense bramble or Holly understory) to deter direct access.

New Planting

4.19 Supplementary native planting should be undertaken to infill significant gaps within the woodland canopy these will include species contained in appendix 5.

4.20 Planting should seek to promote more diverse native stand in the woodland areas and waterside areas to further improve habitat. This planting will increase the biodiversity of the woodland, helping the landscape integration into the wider site and strengthening the stability of the woodland edge.

4.21 In the open parkland area trees should be planted to enhance the historic landscape setting of the park and existing character. Certain areas have the capacity for the introduction of exotic, parkland species. The dell area and the area fronting the buildings currently have a number of arboretum species. These should be supplemented to enhance the visitor experience.

4.22 Planting should also be undertaken to protect the visual intrusion of the industrial areas, especially along the western boundary of the park.

4.23 A number of naturally occurring Oak and native trees species seedling were noted during the assessment of the park. Where feasible these should be selectively guarded and protected this will to continue local genetic diversity of the indigenous trees stock. Guarding will mean that they are less likely lost to mowing or grazing.

Managing the risk relating to trees

4.24 The HSE guide *SIM 01/2007/05* (HSE, 2007) states that the risk of being struck and killed by a tree falling is 'extremely low' but may not be perceived in this way by the public. The National Tree Safety Group (NTSG) ethos is that is that 'Safety is but one of the many goals to which we aspire; the mistake that is often made is to focus on safety as if it is the only goal'.

4.25 Trees can cause nuisance, damage to buildings and above all a danger to people. These risks must be managed. The organisation responsible for any tree has a duty, known in law as *the duty of care*, to take reasonable care to avoid acts or omissions which they can reasonably foresee would be likely to cause harm. The laws (App.1) concerning trees are complex but most simply require reasonable care is taken to:

- Identify possible sources of foreseeable danger, and
- remove them as far as is reasonably possible.

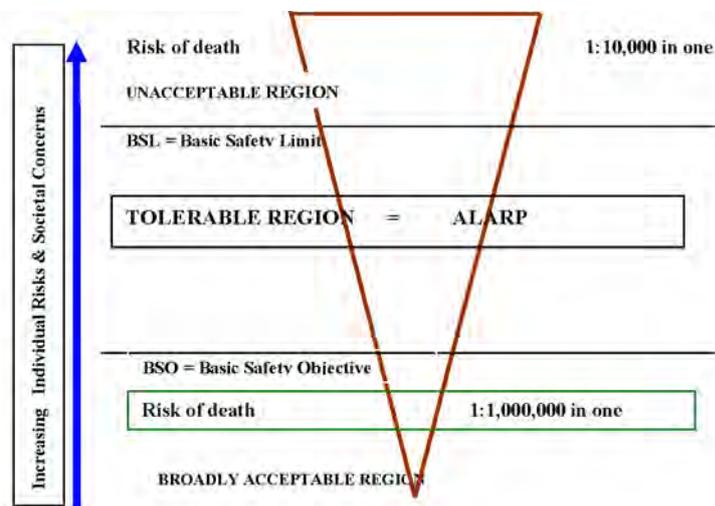
4.26 For tree risk management to be defensible it is important to be able to review how risk decisions are made (how risks are identified, appraised and controlled).

4.27 The assessment of tree risk requires the consideration of the following:

- The value of the target judged to be at risk,
- The magnitude of the hazard,
- The probability of failure.

4.28 The risk of death or serious injury from trees in infrequently-used areas is so low that it is reasonable that these should receive no formal inspection or visual check. However, it may be necessary to respond to any reports of problems.

4.29 The principle that risks should be controlled as *low as reasonably practicable* (ALARP) is embodied in the law (HASW). This basically involves controlling the likelihood and severity of harm relative to cost. Measures, for example, that involve inspecting and recording every tree would be grossly disproportionate to the risk. This is illustrated by the HSE produced diagram a 'tolerability of risk' (fig.1) For there to be a significant risk of significant harm there must be something of significance to be harmed and the initial focus should be moved away from tree defects and onto the understanding of targets. A target is *that which is exposed to harm*.



4.30 Fig.1: Based on *Reducing Risks Protecting People* 'Framework for the tolerability of risk (HSE, 2001)

4.31 The Ipswich Tree Management Policy (2010) sets out the methodology for the Quantified Tree Risk Assessment (QTRA). Adopted by the Council, QTRA applies established and accepted risk management principles to tree safety management. With QTRA the land use, presence and nature of the target is quantified and considered against the tree or tree part in terms of both impact potential and probability of failure to calculate the probability of harm. The frequency and

intensity of inspections, tree removal, tree surgery works should be calculated by the guidance set out in the Ipswich Tree Management Policy (2010) and QTRA.

Management for amenity, heritage and landscape value

- 4.32 Holywells Park has a long history going back many years. Images of the park and the famous representation by Thomas Gainsborough suggest that the treed element of the park was more sparse allowing sweeping views and vistas. Future management in this particular respect will have to balance the wealth of wildlife, particularly in the well established woodland and conservation objectives.
- 4.33 Many elements convey this past grandeur and indeed may even date from this period. The many avenues should be maintained and where single specimens are structurally unstable over mature replanting, with the like should be considered. Similarly the large mature, in some cases veteran trees encapsulate the English parkland character and should be retained and carefully maintained with the aim of extending their useful life. The park includes solitary trees with significant individual merit, see plan JSL2076_700 for locations of some of these trees with special features (this is not an exhaustive representation of all the special trees within the park).
- 4.34 Currently the trees and woodland provide both enclosure and high amenity value in the local landscape character. To retain the existing landscape setting of the park, enhance existing areas of planting and promote a more diverse landscape for the visitor experience replanting should be undertaken to ensure this resource is available for future generations.
- 4.35 Planting should also be undertaken to protect the visual intrusion of the industrial areas, especially located to the west of the site.
- 4.36 Similarly, where wooded areas have become congested with mid-storey monocultures or invasive vegetation, views should be opened-up with selective clearance. This may accord with the inclusion of Holywells Park on the English Register of Historic Parks and Gardens where fabric of the historic park have become degraded or are concealed. In these instances selective clearance may be required to reinstate them.
- 4.37 **Works undertaken as part of the capital works programme**
- 4.38 The Heritage Lottery Fund (HLF) dredging works will be phased over a number of years. To enable the works will require the management of vegetation around the lakes. This will allow safe access for de-silting, reduce leaf litter and reduce shading to increase the range of habitats
- 4.39 The capital works programme also includes vegetation management and planting to protect restore or recreate historic landscape features of importance such as the 'Rhododendron Valley', the terrace and the early 20th Century formal gardens near the former site of 'Holywells House'. The restoration project also aims to protect, restore or recreate the principle components of the 11th Century and 19th Century development phases particularly the complex of medieval waterbodies that run through the park; the formal gardens that adorned the area around the mansion during the Cobbold era and the Bishops Wyke landform.
- 4.40 Where works, such as the deposition of the silt and/ or the haul routes have the potential to harm the canopy or roots of the retained vegetation appropriate protective measures must be

employed. This should be carried-out in accordance with guidelines set down in BS5837: 2012 Trees in relation to design, demolition and construction – Recommendations

- 4.41 The Root Protection Area (RPA) roughly equates to the spread of a tree canopy. Where trees are located in close proximity of works the RPA this should be calculated. Where any part of a trees crown extends beyond the calculated RPA, the protective measures should be extended to protect the trees branched framework. This should be fenced-off and protected in accordance with BS5837: 2012.

Workmanship

- 4.42 All tree work should preferably be carried out by an Arboricultural Association approved tree surgeon in accordance with The Arboricultural Association Standard Conditions of Contract and Specification for Tree Works and BS3998:2010 Tree Works - Recommendations.
- 4.43 During management operations wildlife species may be encountered which are covered by legislation Work should be undertaken, wherever possible, outside of the established roosting / nesting seasons. At all other times, and when in doubt, a suitably qualified ecologist should be in attendance and the advice and appropriate permission gained from the Statutory Conservation Authority (SCA).
- 4.44 Tree management produces arisings, typically chip, cordwood and brash which are increasingly viewed as a resource. Uses may include fuel, firewood logs, charcoal, feedstock, milled timber and niche markets, composting and mulch.

Bio-security

- 4.45 In the last few years, a number of new tree and plant pests and pathogens have emerged as significant risks. Threats to tree health have increased with the globalisation of trade generally with a marked increase in the volume and diversity of plants and plant products entering the UK.
- 4.46 In addition to the various measures introduced by the Government to deal with the increasing threat to the health of trees a number of practical actions have been identified to reduce risks from pests and diseases.
- 4.47 The Government advisor DEFRA has recognised surveillance as a vital tool to detect and monitor pests and diseases. Any future management actions and monitoring of the trees and woodland should be prepared to contribute information and take action on tree health and broader plant bio-security. This will require increased awareness and access to educational material on plant and tree pests and diseases.
- 4.48 It is particularly relevant with regard to the current plans for Holywells Park as bio-security may be included as a criteria in awards/schemes, such as Green Flag Awards for Parks, Heritage Lottery Funding.
- 4.49 Some species of Ash (*Fraxinus* sp.) maybe susceptible to Ash Dieback, and should any indications of this disease become present on Ash trees within this site further advice should be sought from an arboriculturalist and / or the Forestry Commission (see

<http://www.forestry.gov.uk/chalara>) and also refer to: <http://www.defra.gov.uk/publications/2012/12/06/pb13843-chalara-control-plan/>)

Climate Change

- 4.50 The global climate may be changing as a result of human activity, caused primarily by the increased concentration of carbon dioxide in the atmosphere. The most recent predictions for the UK suggest an increase in temperature and changes in rainfall patterns, wind speed, cloud cover and humidity.
- 4.51 Climate change effects, such as warmer winters and changes in seasonal rainfall and storm patterns may increase the spread and impact the risk of pest and plant disease establishment. Species selection is likely to become increasingly important across much of the UK. It is not clear just how widespread changes to climate will affect current and future tree stands, however it would be prudent to avoid species monocultures and monitoring will be key with regard to these matters.
- 4.52 Ultimately trees and woodlands may have a small, but potentially important, role to play in climate change mitigation. Woodland can also contribute to flood and erosion control, while its contribution to improving the urban environment should not be underestimated.

Future Inspections

- 4.53 It is recommended that a programme of periodic arboricultural assessments be undertaken in order to regularly assess the full health and safety of all trees both in full leaf and bare stem. The assessments should accord with QTRA and continue to prioritize areas based on levels of access and presence of target (i.e. exposure of people to hazard) and accord with arboricultural advice, taking account of relevant arboricultural factors (where known) that affect safety such as the age class, condition, size and species of the trees.
- 4.54 The numerous advances to aid the evaluation of trees hazards should be embraced. Claus Mattheck defined the term *Visual Tree Assessment* (VTA) and popularised the science of *Tree Biomechanics* to explain how various kinds of mechanical stress (and strength) can be recognised by looking at the shapes of stems, branches, roots and the hollowing of trees. There is a greater understanding of the mechanical effects of different types of fungal decay. In addition to VTA, knowledge of the growth and failure patterns of individual species and environmental and historical aspects of the site are critical to effective hazard analysis.
- 4.55 A number of the trees on the park have some level of ivy growth. Given the potential for ivy to provide habitat it is recommended that its removal is prioritised to the trees bounding the footpaths, areas where people are likely to congregate. Any decisions regarding Ivy should be carried following consultation with the Wildlife Rangers The removal of ivy will allow detailed and thorough inspection to be completed in the future.
- 4.56 Should an extreme weather event occur (such as a serious storm, snow or strong winds) a review of the tree stock should be completed as soon as possible to note any recent damage which may have occurred; including (not an exhaustive list) damaged boughs, hung wood, fallen trees, root plate heave and lightning strikes. Suitable remediation works should be tasked thereafter to remove any newly presented risks.

4.57 All felled timber should remain on site and neatly stacked into deadwood piles, in locations which would not cause future maintenance issues. These will serve to provide an educational resource for visiting school children studying invertebrates and other fauna, fungi, and so on. Plus, they provide specific habitat for protected species such as the Stag Beetle

APPENDIX 1

TREE LAW IN ENGLAND (for information only and does not constitute legal advice)

There is a range of legal obligations on those managing or working with trees.

Health and Safety

1. The Occupiers Liability Act 1957/1984
2. Common Law and its relation to hazardous trees, nuisance etc.
3. Health and Safety at Work Act 1974
4. Corporate Manslaughter Act 2007
5. Highways Act 1980
6. New Roads and Street Works Act 1991

Tree Preservation

7. The Town and Country Planning Act (as amended) 1990
8. Planning (Listed Buildings and Conservation Areas) Act 1990
9. The Forestry Act (as amended) 1967

Habitat and Species

10. The Wildlife and Countryside Act 1981.
11. Conservation (Natural habitats etc) Regulations 1994
12. Natural Environment and Rural Communities Act 2006.
13. Countryside and Rights of Way Act (CRoW Act) 2000
14. Ancient Monuments and Archaeological Areas Act 1979
15. Wildlife and Countryside Act - Bats
16. Wildlife and Countryside Act - other species
17. Hedgerow legislation

APPENDIX 2

Compartment Specific Management Schedules



Tree and Woodland Group Schedule

Site: Holywells Park, Ipswich

Hatched areas represent advance works recommended for completion during the capital phases of the project

Surveyor: David Cox/ Chris Chambers/
Brian Wallis

Project / Schedule Ref: JSL2076_750

Status: For Comment

Ref No:	Species composition / % composition	Approx height (m)	Age class	Description of group / trees	Management objectives	Priority management recommendations	Five-year management recommendations
T1	<i>Aesculus hippocastanum</i> (Horse Chestnut)	25	V	Large maidens, full crowned trees established with limited intervention/ works.	Manage to realise veteran resource. Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Monitor stability and structural condition with to reference to QTRA .	Continue to monitor stability and structural condition periodically.
T2	<i>Castanea sativa</i> (Sweet Chestnut)	20	M	Poorly hung Sweet Chestnut, regenerating/ layering vertically.	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Monitor stability, assess/ reconsider route of footpaths beneath tree, relocate paths away from fall zone.	Monitor stability, assess route of footpaths beneath tree.
T3	<i>Quercus robur</i> (English Oak)	20	V	Huge veteran Oak, partial collapse in past towards pond. With lesser bough bias more extreme, previous limb loss in past.	Manage to realise veteran resource. Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Monitor stability and structural condition with to reference to QTRA .	Continue to monitor stability and structural condition periodically.
T4	<i>Castanea sativa</i> (Sweet Chestnut)	25	M	Large maiden, full crowned tree established with limited intervention/ works.	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Monitor leaning Sweet Chestnut with significant wound on main stem.	Continue to monitor leaning Sweet Chestnut with significant wound on main stem.
T5	<i>Fraxinus excelsior</i> (Common Ash) x 2	15	OM	Declining/collapsing pair of Ash beside path.	Reduce to standing hulk of 3.5m potential for coronet cut.	Reduce to standing hulk of 3.5m potential for coronet cut. Bat/ wildlife surveys to be carried out in advance of works.	
T6	<i>Pinus sylvestris</i> (Scots Pine)	25	OM	Declining Scots Pine.	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Monitor declining Pine beside woodland path, lower deadwood snags.	Continue to monitor declining Pine beside woodland path, lower deadwood snags.
T7	<i>Betula pendula</i> (Silver Birch)	5	D	Moribund dead Birch.	Tree is dead. In accordance with QTRA taking the tree into consideration, its location near to a track, its poor structural condition and the likelihood of failure means that it must be removed on grounds of public health and safety.	Fell	
T8	<i>Aesculus hippocastanum</i> (Horse Chestnut) x 2	20	OM	Horse Chestnut pair.	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Manage roadside Horse Chestnut due to decayed fork and its risk to adjacent highway, Horse Chestnut beside woodland walk due to declining condition with reference to QTRA. Bat/ wildlife surveys to be carried out in advance of works. Tree felling will provide replanting opportunities.	Maintain new planting.
T9	<i>Populus tremula</i> (Aspen)	20	MA	Aspen.	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Consider clearance of Ivy from some of Aspen, only in open parkland areas, retain ivy within woodland portions. Ivy to be managed in consultation with wildlife rangers, reference to QTRA and with respect to potential wind loading and to allow full inspection of structural condition.	Following works, continue to monitor stability and structural condition periodically.
T10	<i>Pinus nigra</i> (Austrian Pine) <i>Acer pseudoplatanus</i> (Sycamore)	20	MA	Mixed solitary trees	Pine has a severe lean and is propped against the Sycamore. When these are assessed in accordance with QTRA, taking its location near to a track into consideration, the poor structural condition and the likelihood of failure means that they must be removed on grounds of public health and safety.	Fell, retain wood as deadwood habitat.	
T11	<i>Pinus nigra</i> (Austrian Pine) x 2	25	M	Mixed solitary trees	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Monitor hung/heavily biased pines with reference to QTRA. Root plate lift.	Monitor hung/heavily biased pines. Root plate lift.
T12	<i>Populus sp.</i> (Poplar sp.)	35	OM	Poplar.	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Recommend detailed internal inspection to establish degree of sound wood/ hollowing. Refer QTRA/ Claus Mattheck.	Future management subject of findings of inspection.



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T13	<i>Aesculus hippocastanum</i> (Horse Chestnut)	30	M	Horse Chestnut.	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Clear Ivy, monitor exudant from large buttress (1 of 3). Ivy to be managed in consultation with wildlife rangers, reference to QTRA and with respect to potential wind loading and to allow full inspection of structural condition.	Following works, continue to monitor stability and structural condition periodically.	
T14	<i>Fraxinus excelsior</i> (Common Ash) x 1	20	M	Ash.	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Fell partial fallen Ash over moat, clear view of play space, retain wood as deadwood habitat.		
T15	<i>Fraxinus excelsior</i> (Common Ash) x 1	20	M	Ash.	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Manage Ivy in consultation with wildlife rangers, reference to QTRA and with respect to potential wind loading and to allow full inspection of structural condition.	Following works, continue to monitor stability and structural condition periodically.	
T16	<i>Fraxinus excelsior</i> (Common Ash) x 1	16	M	Solitary Ash.	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Manage Ivy in consultation with wildlife rangers, reference to QTRA and with respect to potential wind loading and to allow full inspection of structural condition.	Following works, continue to monitor stability and structural condition periodically.	
T17	<i>Aesculus hippocastanum</i> (Horse Chestnut)	24	M	Horse Chestnut	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Ensure tree is monitored for health and safety. Hazard beam branch noted.	Ensure tree is monitored for health and safety. Hazard beam branch noted.	
T18	<i>Populus x canadensis</i> (Hybrid Black Poplar)	>24	M/OM	Large Poplar.	Manage to realise veteran resource. Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Manage Ivy in consultation with wildlife rangers, reference to QTRA and with respect to potential wind loading and to allow full inspection of structural condition.	Following works, continue to monitor stability and structural condition periodically.	
T19	<i>Quercus robur</i> (English Oak)	24	V	Veteran Oak, designated as the 'bat tree'	Manage to realise veteran resource. Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Veteran tree with typical rot pockets and attached deadwood. Significant in ecological landscape and arboriculture terms.	Continue to manage in accordance with "Veteran Trees: A Guide to Good Management" (H Read).	
T20	<i>Taxodium distichum</i> (Swamp Cypress)	18	M	Swamp Cypress	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Note: Tree in area likely well used within a high target zone. Crossed branches. Form suggests tree may have been reduced at an earlier stage.	Continue to monitor stability and structural condition periodically.	
T21	<i>Quercus ilex</i> (Holm Oak)	20	M	Evergreen group.	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Tree in south west of G22. Meripilus giganteus fungus noted in root crotch. Monitor for spread/re-emergence of fungus body and significant changes to the health of the crown.	Continue to monitor stability and structural condition periodically.	
T22	<i>Alnus glutinosa</i> (Common Alder)	17	M	Alder.	Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Southerly lean in direction of the water. Continue to monitor/check for changes in root plate disposition.	Continue to monitor stability and structural condition periodically.	
T23	<i>Fraxinus excelsior</i> (Common Ash)	18	M	Ash.	Tree has significant fungal fruiting bodies. When the tree is assessed in accordance with QTRA, taking its location near to a well use footpath into consideration, the poor structural condition and the likelihood of failure means that it must be removed on grounds of public health and safety.	Ash with significant bracts of velvet fungus beside path. Fell or appropriate crown reduction.	Following works, continue to monitor stability and structural condition periodically.	
G1	<i>Ilex aquifolium</i> (Holly) <i>Castanea sativa</i> (Sweet Chestnut) <i>Sambucus nigra</i> (Elder) <i>Aesculus hippocastanum</i> (Horse Chestnut) <i>Acer pseudoplatanus</i> (Sycamore)	65% 15% 15% 5% 5%	25	M	Holly rich understorey with Sweet Chestnut standards beside car park.	Selectively open views onto the wider landscape. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Selective coppice holly, select better specimens. Manage veteran Horse Chestnut, monitor condition of large maidens. Coppice Elder	Following works, continue to monitor stability and structural condition periodically.



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Status: For Comment

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G2	<i>Ilex aquifolium</i> (Common Holly) 50% <i>Castanea sativa</i> (Sweet Chestnut) 15% <i>Quercus robur</i> (English Oak) 5% <i>Rubus fruticosus</i> (Bramble) 25% <i>Ulmus procera</i> (English Elm) 5%	15	M	Dense thicket, wildlife quietude.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Standing dead Pine and Sweet Chestnut. Maintain wildness, assess risk of standing dead Pine v's wildlife value.	Continue to monitor stability and structural condition periodically.
G3	<i>Ilex aquifolium</i> (Common Holly) 50% <i>Pinus sylvestris</i> (Scots Pine) 10% <i>Castanea sativa</i> (Sweet Chestnut) 25% <i>Sambucus nigra</i> (Elder) 5% <i>Acer pseudoplatanus</i> (Sycamore) 5% <i>Quercus robur</i> (English Oak) 5%	10	M	Boundary thicket beside housing.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Retain selectively coppice/thin Holly to retain screen. Occasional gaps would benefit from reinforcement planting. Re-coppice some edge Sweet Chestnut.	Following works, continue to monitor stability and structural condition periodically.
G4	<i>Castanea sativa</i> (Sweet Chestnut) 25% <i>Ilex aquifolium</i> (Common Holly) 35% <i>Sasa sp.</i> (Bamboo) 25% <i>Quercus robur</i> (English Oak) 5% <i>Alnus glutinosa</i> (Common Alder) 10%	25	M	Steep escarpment / bowl.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Various collapsed Sweet Chestnut. Single <i>Trachycarpus fortunei</i> (Chusan Palm). Potential to create exotic collection to add to existing character. Manage Sweet Chestnut/monitor/re-coppice as appropriate.	Explore planting opportunities. Following works, continue to monitor stability and structural condition periodically.
G5	<i>Ilex aquifolium</i> (Common Holly) 60% <i>Pinus sylvestris</i> (Scots Pine) 15% <i>Fraxinus excelsior</i> (Common Ash) 15% <i>Sasa sp.</i> (Bamboo) 15% <i>Quercus ilex</i> (Holm Oak) 5%	15	M	Dense thicket behind pond, screens warden's yard. Large Pine, Holm Oak.	Selectively open views onto the wider landscape. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Selective thin Holly, maintain screen, monitor standing deadwood Pine.	Following works, continue to monitor stability and structural condition periodically.
G6	<i>Quercus robur</i> (English Oak) 20% <i>Castanea sativa</i> (Sweet Chestnut) 20% <i>Ilex aquifolium</i> (Common Holly) 35% <i>Acer pseudoplatanus</i> (Sycamore) 15% <i>Corylus avellana</i> (Common Hazel) 5% <i>Fagus sylvatica</i> (Common Beech) 5%	25	M	Sloping terrace with large Oak, Sweet Chestnut maidens amongst Holly understorey.	Selectively open views onto the wider landscape. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Selective coppice of Holly to retain opportunistic views of park. Promote Hazel.	Following works, continue to monitor stability and structural condition periodically.
G7	<i>Castanea sativa</i> (Sweet Chestnut) 20% <i>Ilex aquifolium</i> (Common Holly) 35% <i>Acer pseudoplatanus</i> (Sycamore) 25% <i>Rubus fruticosus</i> (Bramble) 20%	20	MA	Boundary group similar to G3, more Sycamore, less Holly in places.	Selectively open views onto the wider landscape. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Selectively clear poorer Sycamore, retain better standards. Promote Hazel, Holly with Oak, Sweet Chestnut standards.	Replant gaps within screen with Hazel / Holly. Following works, continue to monitor stability and structural condition periodically.
G8	<i>Castanea sativa</i> (Sweet Chestnut) 35% <i>Quercus robur</i> (English Oak) 10% <i>Corylus Avellana</i> (Common Hazel) 20% <i>Ilex aquifolium</i> (Common Holly) 20% <i>Acer pseudoplatanus</i> (Sycamore) 15%	25	M	Bowled dell, mature Sweet Chestnut & Oak maidens.	Improve structure / screening to residential boundary.	Improve boundary screen with reinforce Holly planting. Coppice Elder and young Sycamore	Explore planting opportunities. Following works, continue to monitor stability and structural condition periodically.
G9	<i>Castanea sativa</i> (Sweet Chestnut) 25% <i>Sequoia sempervirens</i> (Coast Redwood) 25% <i>Aesculus hippocastanum</i> (Horse Chestnut) 20% <i>Quercus robur</i> (English Oak) 20% <i>Fagus sylvatica</i> (Common Beech) 10%	30	V/M	Open stand of five maiden trees, including two Coast Redwood.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Maintain as parkland entrance, plant new park trees. Coppice scrubby Sycamore. Retain wood as deadwood habitat.	Explore planting opportunities. Following works, continue to monitor stability and structural condition periodically.
G10	<i>Corylus avellana</i> (Common Hazel) 10% <i>Betula pendula</i> (Silver Birch) 10% <i>Fraxinus excelsior</i> (Common Ash) 25% <i>Rubus fruticosus</i> (Bramble) 25% <i>Aesculus hippocastanum</i> (Horse Chestnut) 10% <i>Castanea sativa</i> (Sweet Chestnut) 10% <i>Acer pseudoplatanus</i> (Sycamore) 10%	20	MA	Dense valley, chiefly scrub. Some declining Ash.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Maintain as wildlife thicket, manage declining Ash. Coppice Sycamore scrub. Promote Alder/Hazel. Retain wood as deadwood habitat.	Continue to monitor stability and structural condition periodically.
G11	<i>Castanea sativa</i> (Sweet Chestnut) 20% <i>Quercus robur</i> (English Oak) 10% <i>Corylus avellana</i> (Common Hazel) 10% <i>Ilex aquifolium</i> (Common Holly) 30% <i>Acer pseudoplatanus</i> (Sycamore) 10% <i>Rhododendron ponticum</i> (Rhododendron) 10% <i>Betula pendula</i> (Silver Birch) 5% <i>Fagus sylvatica</i> (Common Beech) 5%	20	M	Partially open, mixed wood. Various Oak/Sweet Chestnut maidens. Dense pockets Holly.	Selectively open views onto the wider landscape. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Clear selected Holly to open long views, maintain broader verge to path. Promote better Sweet Chestnut/Beech/Oak in parallel to existing Sweet Chestnut/Oak. Eradicate invasive <i>Rhododendron</i> ; manage deadwood near path.	Continue removal of exotic species. Following works, continue to monitor stability and structural condition periodically.



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G12	<i>Quercus robur</i> (English Oak) 25% <i>Ilex aquifolium</i> (Common Holly) 50% <i>Taxus baccata</i> (Common Yew) 10% <i>Corylus avellana</i> (Common Hazel) 3% <i>Fraxinus excelsior</i> (Common Ash) 10% <i>Acer pseudoplatanus</i> (Sycamore) 2%	30	M	Stand of mature Oak, Holly understorey.	Selectively open views onto the wider landscape. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Clear selected Holly to open long views. Eradicate invasive Rhododendron; manage deadwood near path.	Continue removal of exotic species. Following works, continue to monitor stability and structural condition periodically.
G13	<i>Ilex aquifolium</i> (Common Holly) 45% <i>Acer pseudoplatanus</i> (Sycamore) 25% <i>Quercus robur</i> (English Oak) 15% <i>Ulmus procera</i> (English Elm) 5% <i>Castanea sativa</i> (Sweet Chestnut) 10%	20	M	Boundary planting beside road, occasional sparse pocket, or area dominated by degraded Sycamore/Elm.	Maintain as screen. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Coppice/thin poorer Sycamore, replant Sweet Chestnut/English Oak to provide continuous parkland character boundary. Promote Hazel/Holly screen. Selective Ivy clearance to improve view of standards. Retain wood as deadwood habitat.	Following works, continue to monitor stability and structural condition periodically.
G14	<i>Carpinus betulus</i> (Hornbeam) <i>Alnus glutinosa</i> (Common Alder) <i>Quercus robur</i> (English Oak)	15	M	Wet copse / scrub beside pond / ditch.	Selectively open views onto the wider landscape and access to the pondside. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Selective coppice of understorey to open backside and views out into park. Phased removal of 1-2 medium Hornbeam from end of Pond.	Following works, continue to monitor stability and structural condition periodically.
G15	<i>Pinus nigra</i> (Austrian Pine) 25% <i>Ilex aquifolium</i> (Common Holly) 50% <i>Acer pseudoplatanus</i> (Sycamore) 20% <i>Sambucus nigra</i> (Elder) 5%	30	M	Mature stand of Pine, Sycamore and Holly understorey.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Fell poorer Elder and Sycamore to open views of large Pine.	Following works, continue to monitor stability and structural condition periodically.
G16	<i>Alnus glutinosa</i> (Common Alder) <i>Quercus robur</i> (English Oak)	30	M	Tree stand in pasture / parkland.	Improve structure	Maintain / plant standard parkland trees.	Following works, continue to monitor stability and structural condition periodically.
G17	<i>Quercus robur</i> (English Oak) 15% <i>Corylus avellana</i> (Common Hazel) 15% <i>Ilex aquifolium</i> (Common Holly) 50% <i>Ulmus procera</i> (English Elm) 5% <i>Acer pseudoplatanus</i> (Sycamore) 15%	20	MA	Scaffold Oak standards over Holly/Sycamore understorey.	Improve structure	Selective thin of Sycamore and Holly maintain better standards. Periodic Ivy clearance in consultation with wildlife rangers, reference to QTRA and with respect to potential wind loading and to allow full inspection of structural condition.	Following works, continue to monitor stability and structural condition periodically.
G18	<i>Acer pseudoplatanus</i> (sycamore) 35% <i>Ilex aquifolium</i> (Common Holly) 10% <i>Ulmus procera</i> (English Elm) 25% <i>Rubus fruticosus</i> (Bramble) 30%	15	MA	Degraded compartment albeit includes mature Elm.	Improve structure	Manage Ivy in consultation with wildlife rangers, reference to QTRA and with respect to potential wind loading and to allow full inspection of structural condition. Clear poorer Sycamore, in lieu of better Elm. Promote Holly. Retain wood as deadwood habitat.	Following works, continue to monitor stability and structural condition periodically.
G19	<i>Acer pseudoplatanus</i> (Sycamore) 70% <i>Ulmus procera</i> (English Elm) 15% <i>Sambucus nigra</i> (Elder) 15%	20	MA	Degraded compartments principally Sycamore cloaked in Ivy.	Improve structure	Clear Ivy periodically. Selective felling of poor Sycamore (25%) promote Holly/Hazel understorey. Retain wood as deadwood habitat.	Clear Ivy periodically. Selective felling of poor Sycamore (25%) promote Holly/Hazel understorey.
G20	<i>Quercus ilex</i> (Holm Oak) 75% <i>Ilex aquifolium</i> (Common Holly) 20% <i>Sambucus nigra</i> (Elder) 5%	15	MA	Group of Holm Oak, biased stems.	Selectively open views onto the wider landscape. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Selective coppice of shrub understorey to open views to park.	Selective coppice of understorey to open views to park.
G21	<i>Castanea sativa</i> (Sweet Chestnut) 20% <i>pinus nigra</i> (Austrian Pine) 20% <i>Quercus robur</i> (English Oak) 20% <i>Fraxinus excelsior</i> (Common Ash) 20% <i>Ilex aquifolium</i> (Common Holly) 20%	25	M	Parkland trees in pasture, various ages/species.	Maintain future parkland tree collection. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Maintain parkland collection, add to appropriately with varied species.	Maintain parkland collection, add to appropriately with varied arboreal species.
G22	<i>Aesculus hippocastanum</i> (Horse Chestnut) <i>Tilia cordata</i> (Small-leaved Lime) <i>Quercus robur</i> (English Oak)	30	M	Series of maiden trees on open boundary.	Selectively manage buffer to provide a screen. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Establish shrub understorey to screen/buffer adjacent flats.	Establish shrub understorey to screen/buffer adjacent flats.
G23	<i>Acer pseudoplatanus</i> (Sycamore) 75% <i>Fraxinus excelsior</i> (Common Ash) 5% <i>Ilex aquifolium</i> (Common Holly) 20%	20	MA	Regenerative boundary group, self suppressing, Ivy clad.	Selectively manage buffer. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Selectively thin, poorer Sycamore (50%) clear Ivy. Promote Holly and better Ash and Sycamore standards. Reinforce screen planting. Retain wood as deadwood habitat.	Continue to monitor stability and structural condition periodically.



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G24	<i>Aesculus hippocastanum</i> (Horse Chestnut)	30	V	Heritage avenue of Horse Chestnut.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Manage appropriately into senescence.	Manage appropriately into senescence and continue to monitor stability and structural condition periodically.
G25	<i>Fagus sylvatica</i> (Common Beech) 90% <i>Tilia cordata</i> (Small-leaved Lime) 3% <i>Pinus nigra</i> (Austrian Pine) 3% <i>Ilex aquifolium</i> (Common Holly) 3%	30	YV	Mature group of Beech, solitary Pine/Lime.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Manage Beech appropriately into senescence. Some limb loss evident, remove hung deadwood.	Manage Beech appropriately into senescence and continue to monitor stability and structural condition periodically.
G26	<i>Castanea sativa</i> (Sweet Chestnut) 50% <i>Quercus robur</i> (English Oak) 20% <i>Aesculus hippocastanum</i> (Horse Chestnut) 20% <i>Fraxinus excelsior</i> (Common Ash) 10%	25	M	Mature Ivy clad standards including large Ash.	Selectively open views onto the wider landscape. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Manage Ivy in consultation with wildlife rangers, reference to QTRA and with respect to potential wind loading and to allow full inspection of structural condition.	Following works, continue to monitor stability and structural condition periodically.
G27	<i>Fraxinus excelsior</i> (Common Ash) 50% <i>Castanea sativa</i> (Sweet chestnut) 20% <i>Acer pseudoplatanus</i> (Sycamore) 20% <i>Ilex aquifolium</i> (Common Holly) 10%	30	M	Mature stand of large Ash, including Sweet Chestnut, Pine, Yew individuals. Ivy high into crowns.	Improve structure. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Fell poorer Sycamore specimens, remove Ivy. Promote scrub understorey. Fell partial fallen Robinia. Retain wood as deadwood habitat.	Following works, continue to monitor stability and structural condition periodically.
G28	<i>Fagus sylvatica</i> (Common Beech) 10% <i>Taxus baccata</i> (Common Yew) 5% <i>Acer pseudoplatanus</i> (Sycamore) 40% <i>Fraxinus excelsior</i> (Common Ash) 25% <i>Corylus avellana</i> (Common Hazel) 15% <i>Quercus robur</i> (English Oak) 5%	20	M	Mature Beech maidens with individually good Ash, Sycamore, Yew and Oak.	Selectively open views onto the wider landscape. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Fell etiolated Sycamore, coppice collapsing Willow beside pond to provide clearer banks. Clear Ivy from better trees. Manage Ivy in consultation with wildlife rangers, reference to QTRA and with respect to potential wind loading and to allow full inspection of structural condition.	Following works, continue to monitor stability and structural condition periodically.
G29	<i>Tilia cordata</i> (Small-leaved Lime) 20% <i>Aesculus hippocastanum</i> (Horse chestnut) 10% <i>Ilex aquifolium</i> (Common Holly) 40% <i>Fagus sylvatica</i> (Common Beech) 10% <i>Quercus robur</i> (English Oak) 10% <i>Corylus avellana</i> (Common Hazel) 10%	20	M	Dense wildlife thicket, low Holly cover, upper maidens of Horse Chestnut, Oak and Lime.	Improve structure. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Coppice poorer Sycamore. Monitor stand. Dead wood poles near targets and collapsing Willow. Retain wood as deadwood habitat.	Following works, continue to monitor stability and structural condition periodically.
G30	<i>Tilia cordata</i> (Small-leaved Lime) 70% <i>Fraxinus excelsior</i> (Common Ash) 10% <i>Sambucus nigra</i> (Elder) 20%	25	MA	Lime maidens beside path, scrubby understorey.	Improve structure. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Clear lower scrub to ground level, clear Ivy from mature Limes. Opportunity for new Lime planting to extend into park.	Following works, continue to monitor stability and structural condition periodically.
G31	<i>Pinus nigra</i> (Austrian Pine) 10% <i>Quercus robur</i> (English Oak) 10% <i>Acer pseudoplatanus</i> (Sycamore) 20% <i>Ilex aquifolium</i> (Common Holly) 50%	30	M	Oak, Pine, Sycamore maidens over Holly embankment.	Improve structure. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Fell suppressed Sycamore. Manage Ivy in consultation with wildlife rangers, reference to QTRA and with respect to potential wind loading and to allow full inspection of structural condition. Retain wood as deadwood habitat.	Following works, continue to monitor stability and structural condition periodically.
G32	<i>Fraxinus excelsior</i> (Common Ash) 30% <i>Sambucus nigra</i> (Elder) 30% <i>Ilex aquifolium</i> (Common Holly) 20% <i>Acer pseudoplatanus</i> (Sycamore) 20%	5	YV	Scrubby ticket at foot of embankment.	Improve structure.	Coppice edge scrub to ground level to offer wider verge.	Coppice to ground level to offer wider verge.
G33	<i>Tilia cordata</i> (Small-leaved Lime)	10-30	Y-M	Lime avenue, various age/condition.	Plant and selectively manage weaker/ hazardous trees out to provide future avenue. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Continue with provision of wide age structure to avenue. Manage declining trees and aerial deadwood appropriately.	Following works, continue to monitor stability and structural condition periodically.
G34	<i>Carpinus betulus</i> (Hornbeam) 15% <i>Castanea sativa</i> (Sweet Chestnut) 15% <i>Populus nigra</i> 'Italica' (Lombardy Poplar) 10% <i>Ilex aquifolium</i> (Common Holly) 40% <i>Ulmus procera</i> (English Elm) 5% <i>Acer pseudoplatanus</i> (Sycamore) 10% <i>Populus tremula</i> (Aspen) 5%	20	MA	Boundary group, better Hornbeam/Sweet Chestnuts, Ash standards, largely Holly understorey. Veteran Hornbeam in contoured form.	Improve structure. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Fell Sycamore adjacent to boundary wall and Ash scrub. Retain wood as deadwood habitat.	Following works, continue to monitor stability and structural condition periodically.
G35	<i>Populus sp.</i> (Poplar sp.) 20% <i>Acer pseudoplatanus</i> (Sycamore) 40% <i>Ilex aquifolium</i> (Common Holly) 30% <i>Fraxinus excelsior</i> (Common Ash) 15% <i>Aesculus hippocastanum</i> Horse Chestnut) 5%	35	M/OM	Dense stand with towering Poplar and Horse Chestnut. Holly/Sycamore understorey.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Poplar in slow decline, future monitoring and appropriate management required. Fell 50% Sycamore, promote Sweet Chestnut/Hazel within group. Retain wood as deadwood habitat.	Following works, continue to monitor stability and structural condition periodically.



Tree and Woodland Group Schedule

Site: Holywells Park, Ipswich

Hatched areas represent advance works recommended for completion during the capital phases of the project

Surveyor: David Cox/ Chris Chambers/
Brian Wallis

Project / Schedule Ref: JSL2076_750

Status: For Comment

Ref No:	Species composition / % composition	Approx height (m)	Age class	Description of group / trees	Management objectives	Priority management recommendations	Five-year management recommendations	
G36	<i>Taxus baccata</i> (Common Yew) <i>Acer pseudoplatanus</i> (Sycamore) <i>Ilex aquifolium</i> (Common Holly)	85% 5% 10%	15	M	Yew rich tree line. Dense group of mature Yew and Sycamore scrub. Individual Pine, single hung Pine (south)	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Make safe the hung Pine, retain scrub edge as deterrent to direct access. Regular target prune to biased trees.	Following works, continue to monitor stability and structural condition periodically.
G37	<i>Alnus glutinosa</i> (Common Alder) <i>Crataegus monogyna</i> (Common Hawthorn) <i>Acer pseudoplatanus</i> (Sycamore)	70% 10% 20%	20	OM	Declining Alder and Sycamore beside moat.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Fell dead Sycamore, manage/monitor Alder, especially where near play area.	Following works, continue to monitor stability and structural condition periodically.
G38	<i>Pinus nigra</i> (Austrian Pine) <i>Quercus robur</i> (English Oak) <i>Acer pseudoplatanus</i> (Sycamore) <i>Ilex aquifolium</i> (Common Holly)	50% 20% 20% 10%	25	M	Mature stand of Pine, Oak with Holly/Ivy understorey.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Clear Ivy from better maiden, fell, poorer Sycamore, open selected views of moat. Manage Ivy in consultation with wildlife rangers, reference to QTRA and with respect to potential wind loading and to allow full inspection of structural condition. Retain wood as deadwood habitat.	Following works, continue to monitor stability and structural condition periodically.
G39	<i>Acer pseudoplatanus</i> (Sycamore) <i>Quercus robur</i> (English Oak) <i>Ilex aquifolium</i> (Common Holly) <i>Rubus fruticosus</i> (Bramble) <i>Sambucus nigra</i> (Elder) <i>Corylus avellana</i> (Common Hazel) <i>Salix caprea</i> (Goat Willow)	50% 10% 10% 20% 5% 3% 2%	20	MA	Mature Ivy clad Sycamore, occasional Oak and Ash. 'Laid' Oak to south of group. Few mature Alder, declining.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Clear Ivy from larger maidens, clear occasional degraded areas to open views of wider park. Coppice or crown reduce dead/declining Alder. Manage Ivy in consultation with wildlife rangers, reference to QTRA and with respect to potential wind loading and to allow full inspection of structural condition.	Following works, continue to monitor stability and structural condition periodically.
G40	<i>Crataegus monogyna</i> (Common Hawthorn) <i>Corylus avellana</i> (Common Hazel) <i>Cornus sanguinea</i> (Common Dogwood)	40% 30% 30%	5	M	Informal remnant hedge.	Improve structure.	Replant to reinforce sense of enclosure in accordance with landscape amenity objectives, informal screening.	Maintain at suitable height.
G41	<i>Fraxinus excelsior</i> Common Ash <i>Fagus sylvatica</i> (Common Beech) <i>Corylus avellana</i> (Common Hazel) <i>Acer pseudoplatanus</i> (Sycamore)	40% 40% 10% 10%	4/6	M	Mixed waterside woodland near parks southern entrance.	Improve structure. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Selective removal of Ivy from larger trees when infestation is seen in to upper or mid crown. Control invasives on the backside to encourage more diverse flora.	Following works, continue to monitor stability and structural condition periodically.
G42	<i>Quercus robur</i> (English Oak) <i>Fraxinus excelsior</i> (Common Ash)	50% 50%	1/3	M	Solitary Oak and Ash in an enclosed meadow with dead wood poles	Improve structure. Encourage regeneration.	Continue current maintenance. Selectively guard and protect naturally occurring Oak seedlings to continue local genetic diversity. Ensure they do not get lost to mowing or grazing.	Continue to guard and protect naturally occurring Oak seedlings to continue local genetic diversity.
G43	<i>Corylus avellana</i> (Common Hazel) <i>Fraxinus excelsior</i> (Common Ash) <i>Acer pseudoplatanus</i> (Sycamore)	10% 40% 50%	18	M	Neglected mixed nature species woodland.	Improve structure. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Manage for wildlife by coppicing Hazel and encourage strong standards. Clean out invasives. Selectively manage Ivy when infestation is into upper crown reaches and tree is adjacent highway or paths.	Following works, continue to monitor stability and structural condition periodically.
G44	<i>Corylus avellana</i> (Common Hazel) <i>Fraxinus excelsior</i> (Common Ash) <i>Acer pseudoplatanus</i> (Sycamore)	10% 40% 50%	18	M	Path / sunken lane.	Selectively open views onto the wider landscape. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Selectively manage Ivy from larger trees. Manage Bramble to encourage planted edge to maintain character of the path but retain glimpses through.	Following works, continue to monitor stability and structural condition periodically.
G45	<i>Mixed native orchard</i>		10	M	Mixed native orchard. Community maintained secure fence area.	Maintain as fruit tree resource.	Continue current orchard / pasture maintenance.	Continue to monitor stability and structural condition periodically.
G46	<i>Populus x canadensis</i> (Hybrid Black Poplar) <i>Alnus glutinosa</i> (Common Alder) <i>Acer pseudoplatanus</i> (Sycamore)		>25	M	Waterside vegetation following moat.	Selectively manage buffer. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Where possible reinforce planting and manage vegetation on the western side to improve screen to industrial area. Manage Ivy from the Poplar where the infestation may act as a sail. Remove weaker Sycamore growth to favour indigenous/native species.	Maintain screening to industrial area. Following works, continue to monitor stability and structural condition periodically.



Tree and Woodland Group Schedule

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Hatched areas represent advance works recommended for completion during the capital phases of the project

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Brian Wallis

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Status: For Comment

Ref No:	Species composition / % composition	Approx height (m)	Age class	Description of group / trees	Management objectives	Priority management recommendations	Five-year management recommendations	
G47	<i>Alnus glutinosa</i> (Common Alder) <i>Populus x canadensis</i> (Hybrid Black Poplar) <i>Corylus avellana</i> (Common Hazel) <i>Acer pseudoplatanus</i> (Sycamore)	50% 30% 10% 10%	24	M	Pond side planting / screen.	Improve structure and wildlife objectives.	Remove deadwood from the pond. Selectively clear areas of vegetation from the backside - scallops to increase biodiversity. Manage Ivy on the larger Poplar. Thin out stand on the lake to define the island and wildlife habitat.	Following works, continue to monitor stability and structural condition periodically.
G48	<i>Alnus glutinosa</i> (Common Alder) <i>Quercus robur</i> (English Oak) <i>Euonymus europaeus</i> (Spindle Tree) <i>Acer pseudoplatanus</i> (Sycamore)	70% 13% 2% 15%	18	M	Alder wet woodland.	Improve structure and wildlife objectives.	Remove Sycamore seedlings to promote natural/native species. Continue opening up of views to the lower well/pond.	Following works, continue to monitor stability and structural condition periodically.
G49	<i>Fraxinus excelsior</i> (Common Ash) <i>Quercus robur</i> (English Oak) <i>Alnus glutinosa</i> (Common Alder)		16	M	Mix of veteran and monolithic trees.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Continue to monitor and allow to naturally retrench/decline given the ecological and amenity value of the trees. Management should accord with "Veteran Trees: A Guide to Good Management" (H Read). One tree maintained as a bat tree.	Continue to monitor stability and structural condition periodically.
G50	<i>Corylus avellana</i> (Common Hazel) <i>Cornus sanguinea</i> (Common Dogwood) <i>Alnus glutinosa</i> (Common Alder)	30% 20% 50%	8	M	Wet woodland pond edge.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Large Alder on stream/waterside with an edge of Hazel and Dogwood. Selectively rotate coppice the Hazel to promote ground flora.	Following works, continue to monitor stability and structural condition periodically.
G51	<i>Poplar tremula</i> (Aspen) <i>Salix caprea</i> (Goat Willow) <i>Aesculus hippocastanum</i> (Horse Chestnut)	60% 20% 20%	25	M	Mature tree stand.	Improve structure and wildlife objectives.	Selectively manage Bramble.	Following works, continue to monitor stability and structural condition periodically.
G52	<i>Quercus robur</i> (English Oak) <i>Acer pseudoplatanus</i> (Sycamore) <i>Cornus sanguinea</i> (Common Dogwood) <i>Populus tremula</i> (Aspen) <i>Sambucus nigra</i> (Elder)	40% 15% 15% 20% 10%	>11	M	Mature mixed tree stand.	Improve structure and wildlife objectives.	Selectively manage Ivy from the trunks. Clean out woodland of scrub growth to promote a stronger stand.	Following works, continue to monitor stability and structural condition periodically.
G53	<i>Populus x canadensis</i> (Hybrid Black Poplar)		>24	M/OM	Large Poplar.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Selectively manage Ivy from weakened trees to reduce the sail.	Following works, continue to monitor stability and structural condition periodically.
G54	<i>Prunus spinosa</i> (Blackthorn) <i>Corylus avellana</i> (Common Hazel) <i>Fraxinus excelsior</i> (Common Ash) <i>Sambucus nigra</i> (Elder)	60% 30% 10% 10%	>24	EM	Scrub regeneration.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Create scallop to manage to reduce potential encroachment. Coppice Hazel.	Following works, continue to monitor stability and structural condition periodically.
G55	<i>Carpinus betulus</i> (Hornbeam) <i>Prunus avium</i> (Wild Cherry) <i>Quercus robur</i> (English Oak) <i>Corylus avellana</i> (Common Hazel) <i>Fraxinus excelsior</i> (Common Ash) <i>Tilia Cordata</i> (Small-leaved Lime)	40% 10% 20% 10% 10% 10%	+24	M	Mature mixed tree stand.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Monitor squirrel damage to any scaffold limbs.	Continue to monitor stability and structural condition periodically.
G56	<i>Quercus robur</i> (English Oak) <i>Corylus avellana</i> (Common Hazel) <i>Sambucus nigra</i> (Elder)	90% 20% 5%	21	V	Mature mixed tree stand.	Manage veteran resource. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Veteran and early mature Oak with an Elder/Hazel midstorey. Selectively coppice the Hazel and control Elder. Maintain to reduce direct access.	Continue to monitor stability and structural condition periodically.
G57	<i>Tilia cordata</i> (Small-leaved Lime) <i>Quercus robur</i> (English Oak) <i>Acer campestre</i> (Field Maple)	60% 20% 20%	22	M/V	Open pasture trees.	Manage veteran resource. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Continue to maintain as grassed area with appropriate monitoring allowing to safely retrench. Phased removal of 2 medium sized Lime trees.	Continue to monitor stability and structural condition periodically.
G58	<i>Zelkova carpinifolia</i> (Caucasian Elm)		22	M	Large ornamental trees.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Large well formed trees in Bamboo decorative understorey fenced off. Open up views and reduce direct competition.	Following works, continue to monitor stability and structural condition periodically.
G59	<i>Tilia cordata</i> (Small-leaved Lime) <i>Alnus glutinosa</i> (Common Alder) <i>Quercus robur</i> (English Oak)	33% 33% 33%	26	V/M	Mixed native (inc some veteran) trees.	Manage veteran resource. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Continue to monitor and allow to naturally retrench/decline given the ecological and amenity value of the trees. Management should accord with "Veteran Trees: A Guide to Good Management" (H Read).	Continue to monitor stability and structural condition periodically.



Tree and Woodland Group Schedule

Site: Holywells Park, Ipswich

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Status: For Comment

Ref No:	Species composition / % composition	Approx height (m)	Age class	Description of group / trees	Management objectives	Priority management recommendations	Five-year management recommendations	
G60	<i>Cupressus macrocarpa</i> (Monterey Cypress) <i>Acer pseudoplatanus</i> (Sycamore)	60% 40%	18	M	Mixed tree stand.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Treed edge at the bowling green boundary. Remove deadwood and manage to retain mixed evergreen buffer.	Continue to monitor stability and structural condition periodically.
G61	<i>Liquidambar styraciflua</i> (Sweet Gum) <i>Prunus avium</i> (Wild Cherry)		>11	M	Ornamental planting.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Remnant planting is ornamental and related to the bowling green, former house infrastructure. Monitor for health and safety reasons.	Continue to monitor stability and structural condition periodically.
G62	<i>Parrotia Persica</i> (Persian Ironwood) <i>Laurus nobilis</i> (Bay Laurel) <i>Fraxinus excelsior</i> (Common Ash) <i>Ilex aquifolium</i> (Common Holly) <i>Magnolia grandiflora</i> (Evergreen Magnolia)		>15	M	Decorative trees.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	A mix of trees effectively forms an ornamental apron and arboretum species. Tidy and remove Ivy and deadwood. Trees could form the beginning of a tree-trail.	Maintain parkland collection, add to appropriately with varied species.
G63	<i>Quercus Ilex</i> (Holm Oak) <i>Ilex aquifolium</i> (Common Holly) <i>Sambucus nigra</i> (Elder)		20	M	Holly / Oaks.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Rainwater run-off noted in the root zones of trees to the west of the root zone, exposing roots. Continue to monitor for health and safety.	Continue to monitor stability and structural condition periodically.
G64	<i>Pinus sylvestris</i> (Scots Pine) <i>Pinus nigra</i> 'Maritima' (Corsican Pine) <i>Pinus sp.</i> (Pine)		>22	M	Evergreen group.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Mixed age species collection of Pine. Monitor, typical deadwood snags associated with the older aged trees.	Continue to monitor stability and structural condition periodically.
G65	<i>Alnus glutinosa</i> (Common Alder) <i>Fraxinus excelsior</i> (Common Ash) <i>Corylus avellana</i> (Common Hazel)	60% 30% 10%	22	M	Alder and Ash with a dense understorey of Bamboo.	Improve structure. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Control reduced to growth selectively to allow views onto the trees. Manage Ivy on the Ash.	Following works, continue to monitor stability and structural condition periodically.
G66	<i>Quercus ilex</i> (Holm Oak) <i>Laurus nobilis</i> (Bay Laurel) <i>Fraxinus excelsior</i> (Common Ash) <i>Ilex aquifolium</i> (Common Holly)	25% 25% 25% 25%	19	M	Mixed aged group congested to the west with Bay Laurel and suppressed Holly.	Improve structure. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Thin overcrowded stand. Monitoring Holm Oaks.	Following works, continue to monitor stability and structural condition periodically.
G67	<i>Taxus baccata</i> (Common Yew) <i>Thuja plicata</i> (western Red Cedar)	50% 50%	>18		Ornamental evergreens.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Ornamental, monitor Yew, practically prostrate.	Continue to monitor stability and structural condition periodically.
G68	<i>Fraxinus excelsior</i> (Common Ash) x 3		>14	M	Ash group.	To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Manage Ivy in consultation with wildlife rangers, reference to QTRA and with respect to potential wind loading and to allow full inspection of structural condition. Accommodate views on to bridge.	Continue to monitor stability and structural condition periodically.
G69	<i>Alnus glutinosa</i> (Common Alder)		17	M	Waterside alder.	Selectively open views onto the water. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Along the southern edge of the pond. Manage to allow glimpses onto water.	Continue to monitor stability and structural condition periodically.
G70	<i>Ilex aquifolium</i> (Common Holly) <i>Rhododendron ponticum</i> (Common Rhododendron) <i>Alnus glutinosa</i> (Common Alder) <i>Fraxinus excelsior</i> (Common Ash)	35% 5% 35% 25%	17	M	Mixed woodland.	Selectively open views onto the wider landscape. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Retain screen removing only invasives or structurally unstable material. Open up and retain selective opening for views.	Continue to monitor stability and structural condition periodically.
G71	<i>Ilex aquifolium</i> (Common Holly) <i>Acer pseudoplatanus</i> (sycamore) <i>Fraxinus excelsior</i> (Common Ash) <i>Rhododendron ponticum</i> (Common Rhododendron)	30% 30% 25% 15%	22	M	Mixed woodland.	Selectively open views onto the wider landscape. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Selectively remove and thin Holly, weaker Sycamore growth and invasive Rhododendron. Manage Ivy where this has reached the upper crown tips in consultation with wildlife rangers, reference to QTRA and with respect to potential wind loading and to allow full inspection of structural condition.	Continue to monitor stability and structural condition periodically.
G72	<i>Salix caprea</i> (Goat Willow) <i>Alnus glutinosa</i> (Common Alder) <i>Fraxinus excelsior</i> (Common Ash) <i>Quercus robur</i> (English Oak)	25% 25% 25% 25%	12	M	Mixed wet wood.	Selectively manage buffer. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Retain screening but thin to provide healthy growth. Promote native species by removing invasive Rhododendron. Open up further to enhance view to the southern end of this group.	Continue to monitor stability and structural condition periodically.
G73	<i>Fraxinus excelsior</i> Common Ash <i>Quercus robur</i> (English Oak) <i>Ilex aquifolium</i> (Common Holly) <i>Alnus glutinosa</i> (Common Alder) <i>Sambucus nigra</i> (Elder)	20% 20% 20% 20%	12	M	Mixed woodland.	Selectively manage buffer. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.	Bamboo onto play area. Retain Bamboo for screen. Remove moribund Elder and weak growth.	Continue to monitor stability and structural condition periodically.

APPENDIX 3

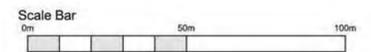
Woodland Compartment Plan

Notes
1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
2. If received electronically it is the recipient's responsibility to print to correct scale. Only written dimensions should be used.

Key

-  Survey boundary.
-  Existing tree or woodland area
-  Arboreal compartment / management zone
-  Tree target note (management recommendation)
-  Tree possessing special features
-  Opportunities to open views onto wider parkland landscape setting with selective understorey clearance (approximate locations only)
-  Selective vegetation management required to enable de-silting works (refer Sirlind Maynard 4662-00-02B to 03A)

NOTES:
• Refer to RPS Tree Management Report & Schedule for further details.
• Survey based on a visual inspection from the ground and is not intended as a full arboricultural inspection.
• Due to the legal protection afforded to breeding birds vegetation removal should not take place during the bird nesting period, generally, although not restricted to, March - August inclusive.
• Survey based upon topographic survey produced by EDI Survey Ltd ref: 8344/T12591A-01 in Nov 2004



A	Showing viewpoints	01-13	CC	DC
Rev	Description	Date	Initial	Checked



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Client LDA Design

Project Holywells Park
Ipswich
Suffolk

Title Tree and woodland compartment and management zone plan

Status	Drawn By	PM/Checked by
For Comment	BK	DC
Job Ref	Scale @ A1	Date Created
JSL2076	NTS	19/10/2012

Drawing Number	Rev
700	A



APPENDIX 4

Site Images



Figure 1: Group 4

The dell area in the north-west of the site contains of collapsed Sweet Chestnut. A single *Trachycarpus fortunei* (Chusan Palm) adds an exotic atmosphere. Planting of ornamental species would add to this character. Manage Sweet Chestnut/monitor/recoppice as appropriate.

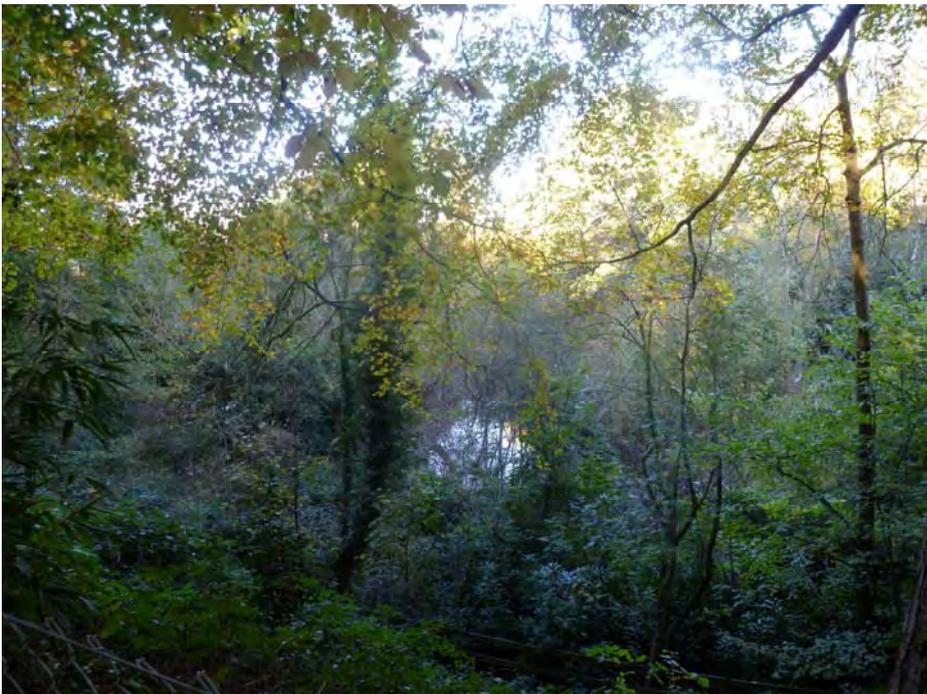


Figure 2: Groups 6 & 10

Selectively open views onto the wider landscape. Achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.



Figure 3: Target note 8
Selectively fell poorer
structurally unstable Horse
Chestnut (northern
boundary)



Figure 4: Group 15
Fell poorer Sycamore to
open views of large Pine.

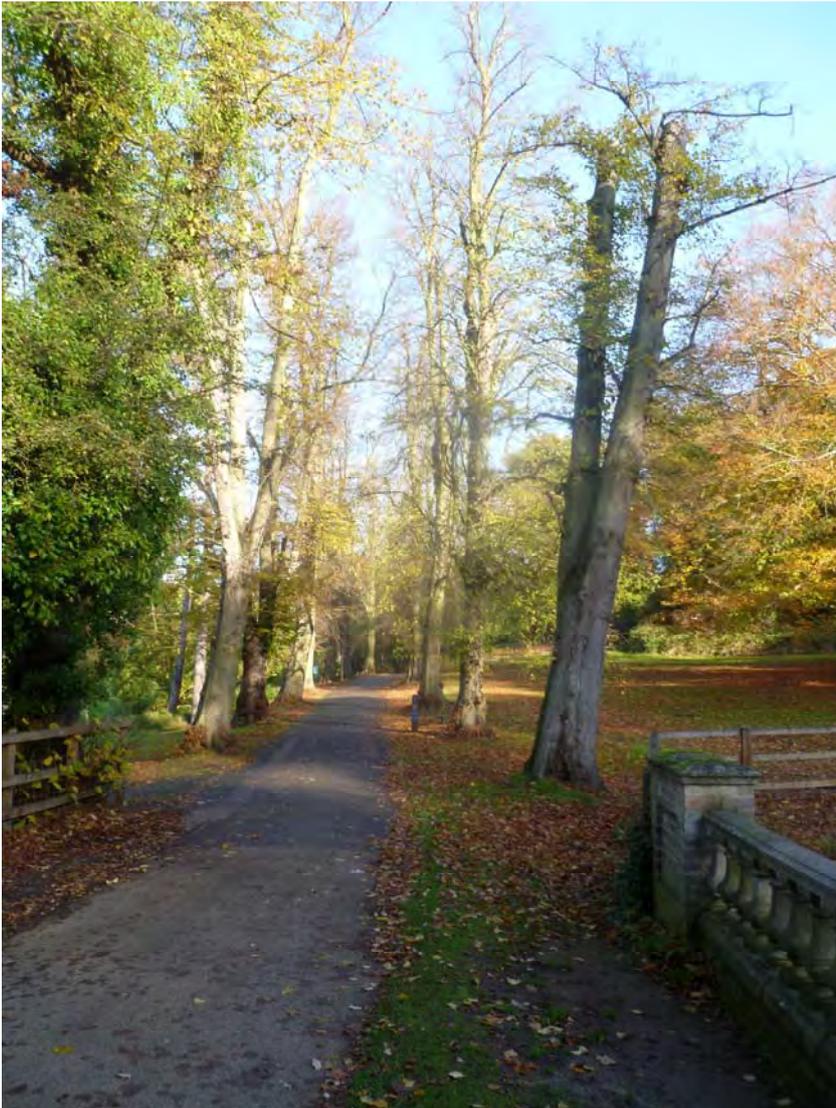


Figure 5: Group 33
Plant and selectively manage weaker / hazardous trees out to provide future avenue. To achieve a balance between the fulfilment of legal health and safety requirements and wildlife objectives.



Figure 6: Various groups
Selectively clear poorer Sycamore, retain better standards.



Figure 7: Group 24
Heritage avenue of Horse Chestnut. Manage appropriately into senescence and continue to monitor stability and structural condition periodically.



Figure 8: Group 47
Remove deadwood from the pond. Selectively clear areas of vegetation from the bankside - scallops to increase biodiversity. Manage Ivy on the larger Poplar following consultation with the Wildlife Rangers. Thin out stand on the lake to define the island and wildlife habitat.



Figure 9: Group 46
Waterside vegetation where possible to reinforce planting and manage vegetation on the western side to improve screen to industrial area. Manage Ivy from the Poplar where the growth may act as a sail following consultation with the Wildlife Rangers. Remove weaker weedy Sycamore growth to favour indigenous/native species.



Figure 10: Various trees
Selectively manage Ivy from larger trees.

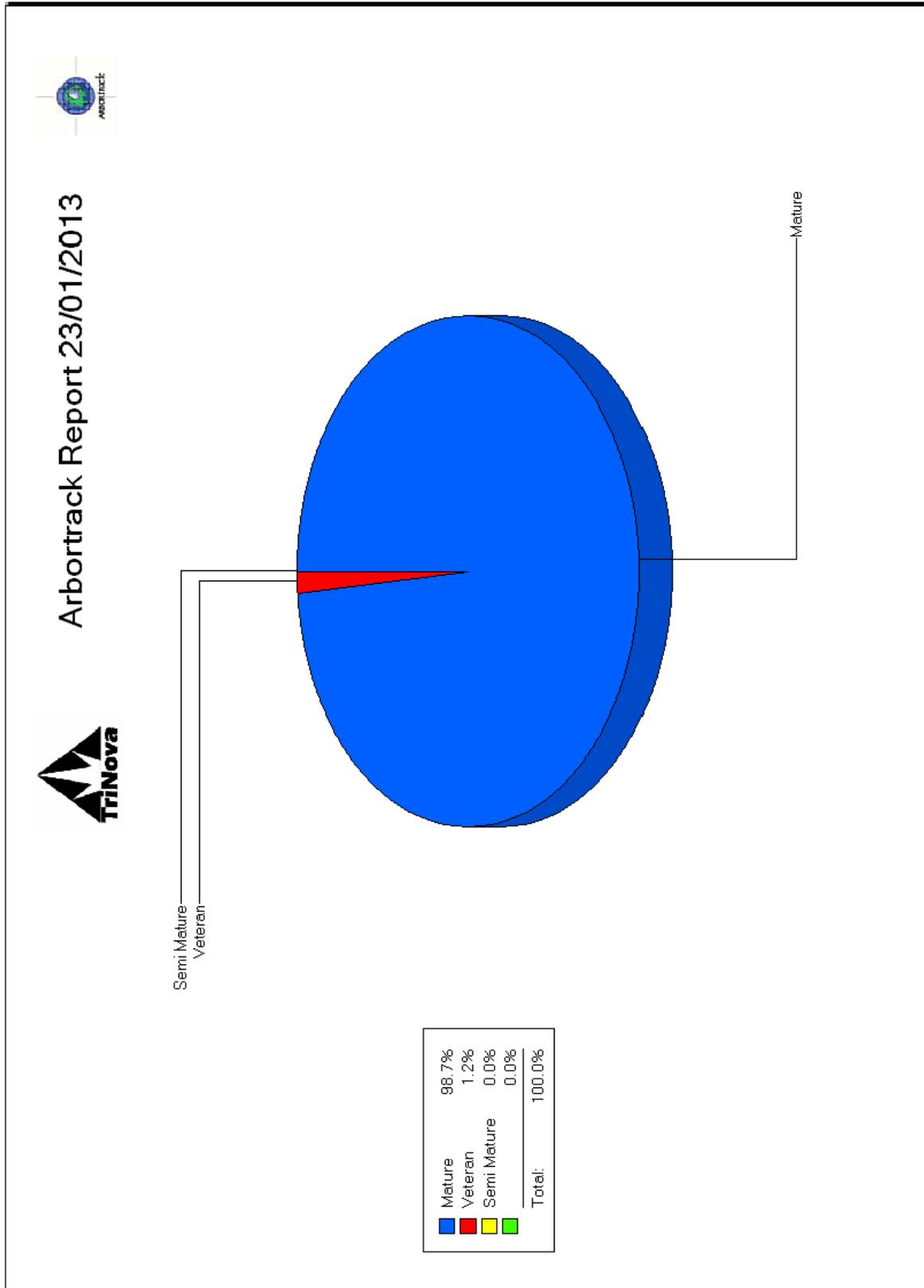


Figure 11: Various locations

Selectively guard and protect naturally occurring Oak seedlings to continue local genetic diversity. Ensure they do not get lost to mowing or grazing.

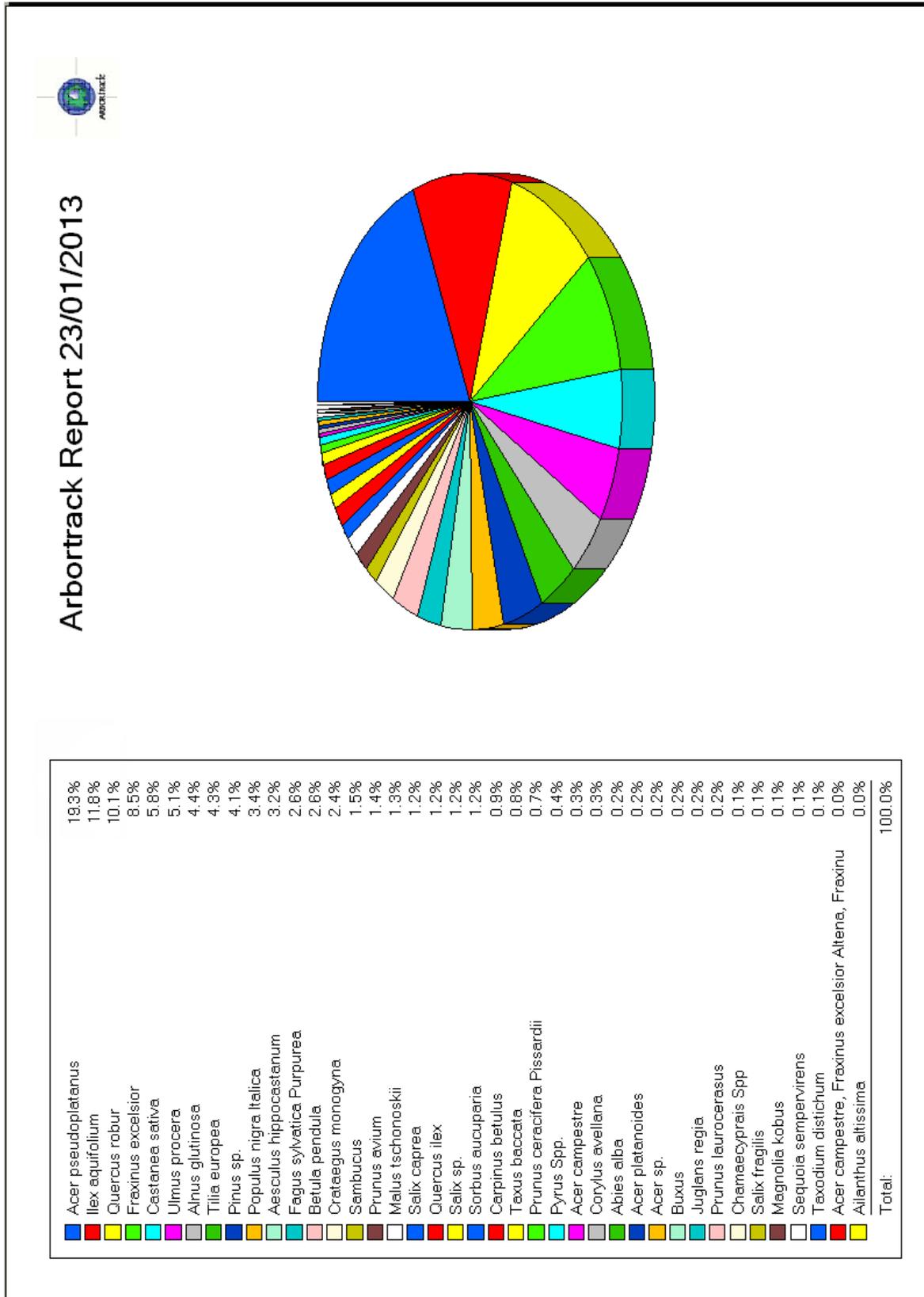
APPENDIX 5

Tree Age Structure (Courtesy of Ipswich Borough Council)



APPENDIX 6

Species diversity (Courtesy of Ipswich Borough Council)



APPENDIX 7

Capital Asset Value for Amenity Trees (CAVAT) **(Courtesy of Ipswich Borough Council)**

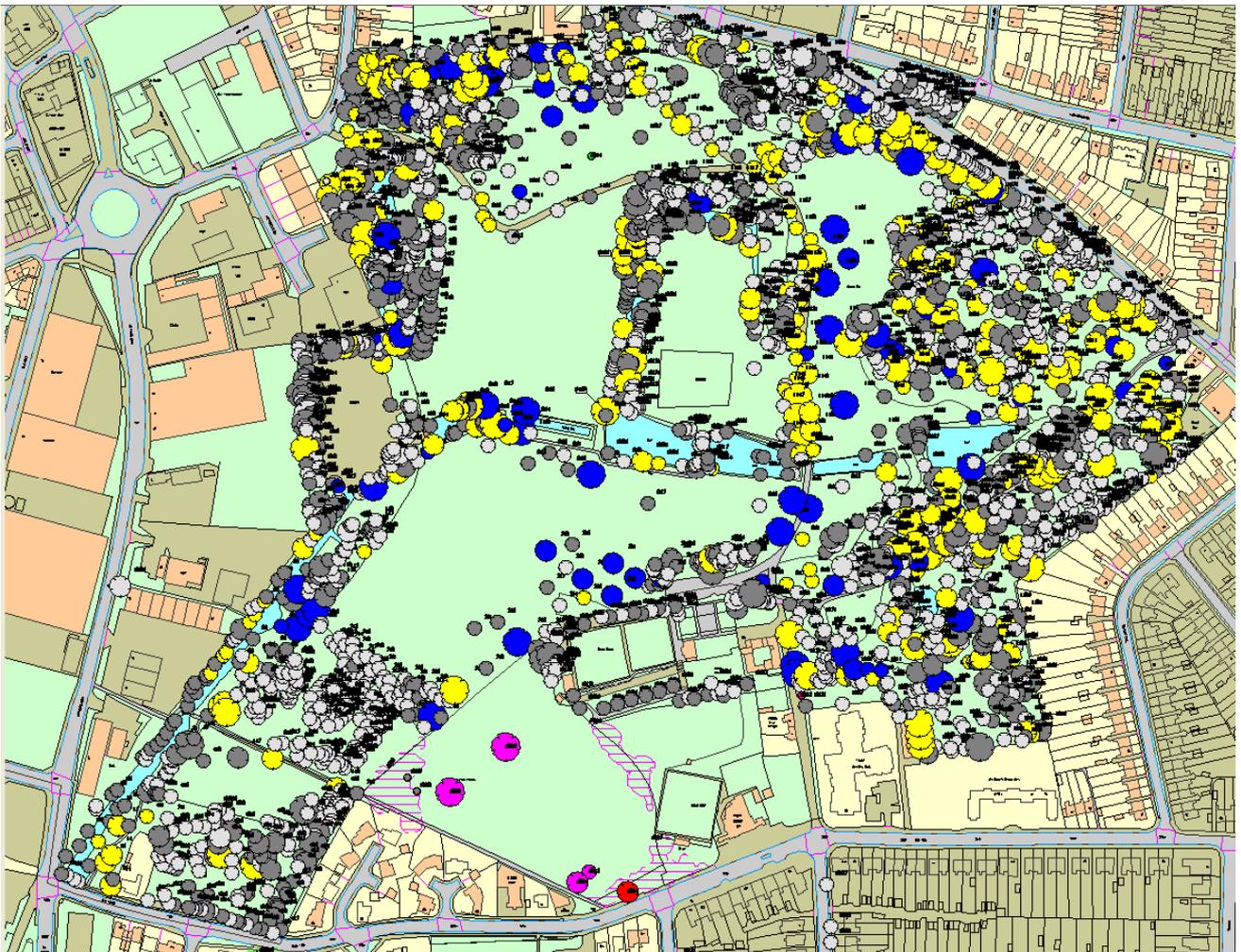
Cavat value of a tree population.

Light grey = < £5000

Dark grey = < £20000

Yellow = < £50000

Blue = > £50000



APPENDIX 8

Supplementary tree & woodland planting palette

		Species	Size	Type	Density		
A. Woodland edge mix planting							
Silver birch	5%	Betula pendula	60-90cm	B	1m c/s		
Hazel	10%	Corylus avellana	60-90cm	B	1m c/s		
Hawthorn	15%	Crataegus monogyna	60-90cm	B	1m c/s		
Holly	15%	Ilex aquifolium	2L	C	1m c/s		
Wild cherry	15%	Prunus avium	60-90cm	B	1m c/s		
Whitebeam	15%	Sorbus aria	60-90cm	B	1m c/s		
Blackthorn	20%	Prunus spinosa	60-90cm	B	1m c/s		
Wayfaring tree	5%	Viburnum lantana	60-90cm	B	1m c/s		
B. Opportunistic woodland infill planting							
Silver birch	10%	Betula pendula	60-90cm	B	Planting as required to infill existing woodland, c2.0m c/s		
Hazel	15%	Corylus avellana	60-90cm	B			
Hawthorn	20%	Crataegus monogyna	60-90cm	B			
Sweet Chestnut	10%	Castanea sativa	60-90cm	B			
Common Beech	5%	Fagus sylvatica	60-90cm	B			
Oak	10%	Quercus robur	60-90cm	B			
Hornbeam	10%	Carpinus betulus	60-90cm	B			
Wayfaring tree	10%	Viburnum lantana	60-90cm	B			
Small leaved Lime	10%	Tilia cordata	60-90cm	B			
Primary / Tree species: Oak, Hornbeam, Beech, Sweet Chestnut Secondary / Understorey species: Hazel, Hawthorn, Wayfaring tree, Lime, Holly							
C. Parkland tree planting (not an exhaustive list)							
Monkey Puzzle	(Planted as individual or grouped specimens)	Araucaria araucana	>20-25cm	C			
Oak		Quercus robur	>20-25cm	C			
Cedar of Lebanon		Cedrus libani	>20-25cm	C			
Sweet Chestnut		Castanea sativa	>20-25cm	C			
Wellingtonia		Sequoiadendron giganteum	>20-25cm	C			
Broad-leaved Lime		Tilia platyphyllos	>20-25cm	C			
Corsican Pine		Pinus nigra 'Maritima'	>3.5m	C			
Persian Ironwood		Parrotia persica	>20-25cm	C			
Hornbeam		Carpinus betulus	>20-25cm	C			
Common Beech		Fagus sylvatica	>20-25cm	C			
Maidenhair tree		Ginkgo biloba	>20-25cm	C			
D. Wet wood areas							
White Willow		(Planted as individual or grouped specimens)	Salix alba	>3.5m		Multi- stem	
Swamp Cypress	Taxodium distichum		>20-25cm	C			
Common Alder	Alnus glutinosa		>3.5m	Multi-stem			

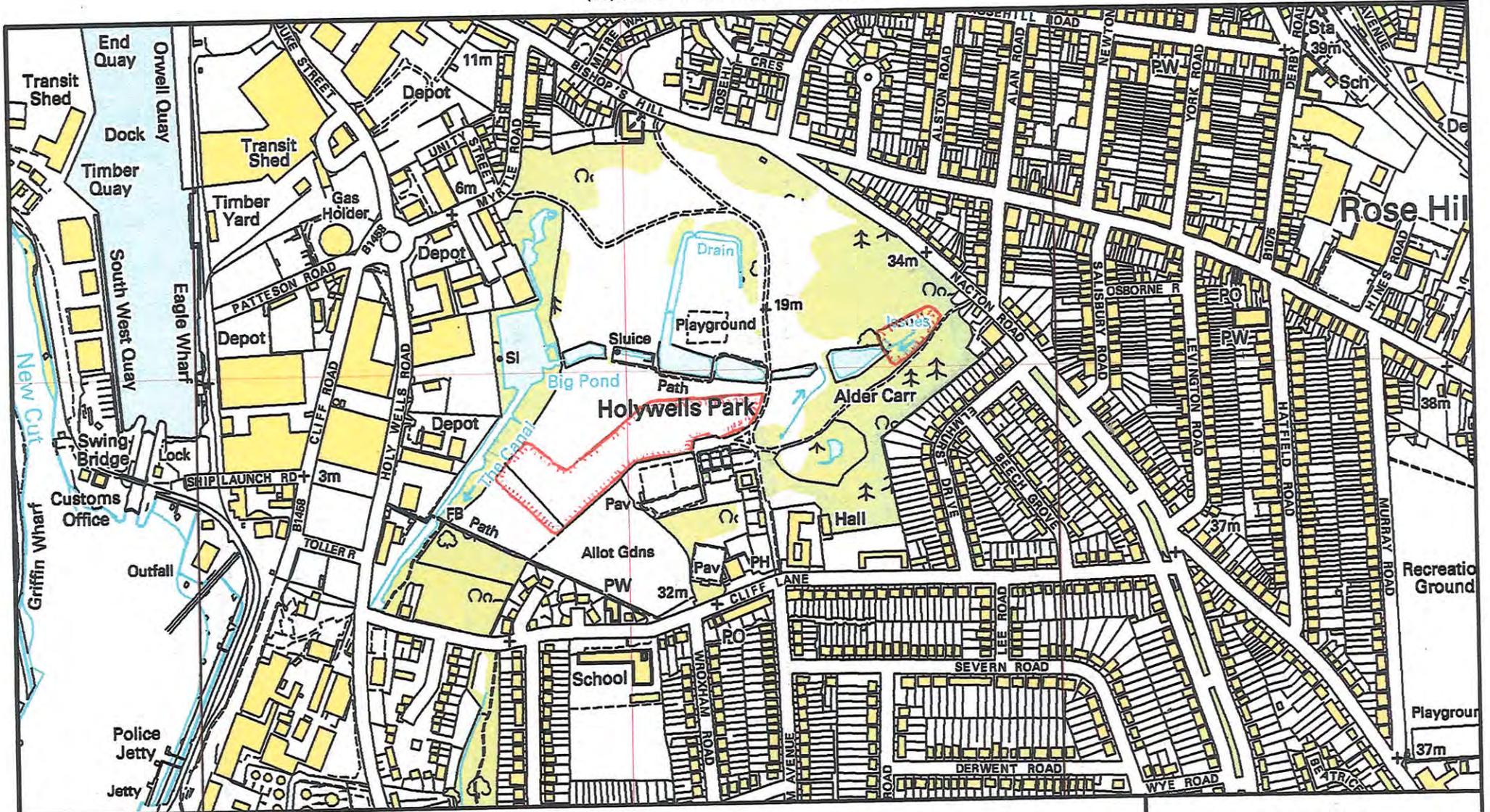
APPENDIX 9

TYPICAL PROGRAMME OF OPERATIONS

ACTIVITY	J	F	M	A	M	J	J	A	S	O	N	D
TREE PLANTING:												
Maintain mulch												
Weed control												
Selective pruning												
Watering (until establishment)												
Check and adjust support												
MATURE TREES:												
Facilitation pruning												
Remedial pruning												
WOODLAND AREAS:												
Selective thinning												
Coppicing												
Invasive species management												
Reinforcement planting												
PLANT NUTRITION:												
Apply fertiliser												
PEST AND DISEASE CONTROL:												
Physical / Mechanical means												
MONITORING AND INSPECTION:												
Generally												
TIMING OF OPERATIONS:												
Bird nesting season												

January 2013
Holywells Park, Ipswich

Appendix 14 RIGS Designation



Holywells Park
Ipswich, Ipswich BC
TM 175 435

Scale 1:5000



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SUFFOLK GEOSITE RECORDING SHEET

SITE	
Locality name	Holywells Park
Parish	Ipswich
Local Authority	Ipswich Borough Council
NGR (accuracy)	TM 176434 and 177435
ACCESS	
Contact	Ipswich Park Rangers
Owner	Ipswich Borough Council
Contact notes	IPR service very keen to understand and preserve geodiversity interest in their parks
Access details	Car park off Cliff Lane
Access notes	Car park quite large and just inside park gates
SITE STATUS	
Site use history	
Site description	Semi-natural urban park with spring features at Red Crag/London Clay junction.
Condition & threats	Spring seepage areas mostly still in natural condition, one has manhole (drainage) cover. Main spring/water source at top of park obscured by fallen trees/branches, bridge (for viewing) in good condition.
Conservation	Leave natural spring seepage areas with interpretation panel to explain. Main spring at top (Nacton Road) end of park needs clearing with a board walk and platform to view the spring and an interpretation panel. This spring need further investigation before action recommended.
RIGS	
GEO FEATURES	
Summary	Varied sedimentary lithologies leading to a variety of groundwater dominated valley features.
Stratigraphy	Kesgrave Gravel Red Crag London Clay 'Oldhaven Beds' Reading Beds See MS by R A D Markham (attached).
Geology	Horizontal strata with repeated permeable/impermeable lithologies.

SUFFOLK GEOSITE RECORDING SHEET

Palaeontology	Some shell fragments in spoil from trench digging.
Structures	
Geomorphology	Feeder spring for ponds issues out of Red Crag at west end of park (Nacton Road end) creating steep-sided valley. Small flint gravel in bedload. Springs and seepage areas, still mostly natural, along the north valley side lower down (east) in the park
OTHER FEATURES	
Educational	Public access renders this park excellent for public information/understanding
Historical	Some landscaping use of springs in series of ponds. Canal at east border of park channelled the spring water to the Cobbold brewery 0.5 km further along on the dockside.
Archaeological	
Wildlife	Great variety of flora and fauna evident: bluebells, primroses, horsetails(in the seepage areas); birds - song thrush, robin, stonechat, green woodpecker, magpie, mallard, pigeon, heron; mammals – squirrel, deer hoof prints, long eared bats (small 50 x 50m protected area)
Aesthetic	Attractive, semi-natural park in urban area, with large variety of wildlife due the varied geology and groundwater regime.
Leisure	Well-used by Ipswich people. Excellent children's play area.
References	Markham R A D <i>A Note on the Geology of the lower part of Holywells Park, Ipswich</i> MS 1985-6 Markham R A D <i>Holywells Park Tree-pits</i> MS 1987 Marham R A D <i>Holywells Park Notes and Geology Map</i> MS 1980s. Markham R A D 1987 site record
MAP	See R A D Markham <i>Holywells Park Notes and Geology Map</i>
CROSS-SECTION	See R A D Markham <i>Notes on the Geology of the lower part of Holywells Park</i>
PHOTOS	Yes
SITE VISIT	
Name: Date	R Dixon, C Markham, D Barbanell, R Markham, R Gwyn-Thomas 19.04.08
RECORD	
Name: Date	C Markham 21.04.08

January 2013

Holywells Park, Ipswich

Appendix 15 Chronology of the Park

Year	Detail
11thC	Queen Edith, wife of Edward the Confessor and her brother Gyrrh, share ownership of the Half Hundred of Ipswich, which includes Holywells.
1075	Queen Edith dies. William, who bestowed many manors on the Bishops during the Medieval period, transfers ownership of the Park to the clergy. It becomes the Manor WIX EPISCOPI (the Manor was also known as Wix Bishop or WYKES Bishop. 'Wykes' denotes a small hamlet outside a walled town).
c.1190	During the reign of Richard I, the manor is given to John of Oxford, Bishop of Norwich. His brother, King John, subsequently confirms it to John le Grey, successor to the See of Norwich.
c.1540	The sequestration of church property by Henry VIII removes Holywells from the ownership of the Bishops of Norwich.
1545	May – Holywells granted to Sir John Jermy of Stutton Hall.
1635	After passing through three generations of the Jermy family, Holywells is sold to Francis Hewitt.
c.1663	Sir Samuel Barnardiston of Brightwell Hall, wealthy and celebrated deputy Governor of the East India Company, acquires the Park via Sir Thomas Essington.
1723	Cobbold Brewery established in Harwich to capitalise on the market provided by the naval dockyard and packet service to Holland. Thomas Cobbold begins renting land in Wix Bishop from Mrs. Mary Barnardiston, exporting water from Holywells to Harwich in specially-built barges
1746	Thomas Cobbold, 'brewer of Ipswich', moves his brewery to 'the Cliff' in the southwest corner of Holywells. The Cobbold family takes up residence in Cliff Cottage, adjacent to the brewing premises.
1748-50	Thomas Gainsborough paints the Holywells Ponds.
1788	The last of the Barnardiston family to own Holywells, Mary Barnardiston, dies. John Cobbold buys the property the following year.

January 2013

Holywells Park, Ipswich

- c.1800 Natural stream in southwest corner of the Park is diverted to increase the water supply to the brewery.
- 1812-1814 Thomas Cobbold's second son, John, buys the park and moves into a newly-built mansion, 'Holywells House' for Christmas (1814). The interior is decorated with panelling removed from various decrepit buildings in Ipswich (i.e. Eldred's House, the Neptune, the Half Moon and Stars, and the Tankard).
- 1841- 44 Tithe Returns indicate that wheat and barley were grown on parts of the upper slopes whilst the lower part of the valley was retained as meadows.
- 1896 Cliff Quay Brewery House, designed by William Bradford for John Dupuis Cobbold, is completed.
- 1935 Park purchased by Lord Woodbridge and donated to town; Children's paddling pool constructed.
- 1962 House demolished due to dry rot.

January 2013

Holywells Park, Ipswich

Appendix 16 Historic Facts of Holywells Bowling Club

- 1946 The Club was formed, as part of the Holywells Social Club operating from Holywells Mansion – (Chairman Mr. C. Nash, Secretary Mrs G. Nash, Mrs D. Bromley).
- 1947 Application was made to Mr. Cobbold on behalf of the Margaret Catchpole Bowls Club being used by Holywells BC; the application was withdrawn in October 1947 by the then Chairman, Mr. F. Snell.
- The first games were played on the green behind the Golden Hind Inn. Richard Toll's father was the groundsman at the Golden Hind and undertook care of the Green which was prepared under advice of Fisons. Mr. Toll was paid the sum of 25/- a week for 52 weeks. Mr. Cooper of the Golden Hind made no charge for the use of the Green, except for water used and any other work involved. Mr. Goodman provided the hose.
 - First Ladies final was won by Mrs. Snell (15 up only), Pairs Cup was awarded to Mr. Thurston and Mr. Howard.
- 1948 It was decided to arrange as many of the league games on Wednesday and Friendly games to be played on Home and Away basis (7 games) – Elected Officers – President: P. Fowler; Secretary: R. Toll; Treasurer: F. Goodman; Gents Capt: – M. Trusler; V-Capt.: R. Buckman; Ladies Capt.: Mrs. Snell; Ladies Vice-Capt. Mrs. Dyson.
- Application was made to enter the Daniels Cup
 - Enquiries were made of the parks Committee regarding the use of the new green built on Holywells Park (now smaller green). Application was granted in 1949 for sole use and the Green was opened by Mr. Revett in 1949. Annual rent was £15.15.0 and members using the Green for other than league games to pay 1 penny in the box (guests sixpence).
- 1949 Discussions took place as to whether both Holywells greens should be taken over, and in November an application to use the second Green was granted.
- 1951 The new green was used for the first time at a rental of £31.10.0 for a 6 day week. Fisons used the smaller green during 1951/2. 1952 Large green was ditched. Holywells agreed upon Green blazers with badges and County tie.
- 1956 It was decided that Holywells no longer required the small green.

January 2013
Holywells Park, Ipswich

Appendix 17 Park Byelaws

BOROUGH OF IPSWICH

BYELAWS

Byelaws made under Section 164 of the Public Health Act 1875 Section 15 of the Open Spaces Act 1906, and Sections 12 and 15 of the Open Spaces Act 1906 by the Ipswich Borough Council with respect to the parks, recreation grounds, gardens, amenity areas, playgrounds, public walks, tree belts and open spaces known respectively as:-

Grounds regulated under Section 164 of the Public Health Act 1875

Alderman Road Recreation Ground
Alexandra Park
Arboretum – Upper and Lower
Bourne Park
Bramford Lane Recreation Ground
Broadmere Road Recreation Ground
Broomhill Park
Brunswick Road Recreation Ground
Chantry Park
Christchurch Park
Clapgate Lane Recreation Ground
Clapgate Lane Tree Belt
Gippeswyk Park
Ellenbrook Open Space
Holywells Park
Landseer Park
Newbury Road Recreation Ground
Norwich Road Gardens
Pipers Vale
Racecourse Recreation Ground
Robin Drive Children's Playground
Rushmere Recreation Ground
St Augustine's Recreation Ground
The Dales
Victoria Street Play Space
Waller's Grove Open Space
Westwood Avenue/Valley Road Open Space

Grounds regulated under Section 15 of the Open Spaces Act 1906

Belstead Brook Open Space
Cliff Lane Tree Belt
Gainsborough Recreation Ground

Stone Lodge Park
Whitehouse Recreation Ground
Whitton Recreation Ground

Grounds regulated under Sections 12 and 15 of the Open
Spaces Act 1906

Airport Recreation Ground
Belstead Road Tree Belt
Castle Hill Recreation Ground
Cherry Lane Recreation Ground
Lime Tree Avenue, Valley Road
Maidenhall Bowls and Tennis Ground
Sandy Hill Play Area
Sherrington Road Park
Tuddenham Road Tree Belt

1. (1) The byelaws relating to parks, pleasure grounds, recreation grounds and public walks which were made by the Ipswich County Borough Council on the 11th July 1949, the 6th December 1949 and the 29th January 1951 and which were confirmed by the Secretary of State on the 8th September 1949, the 15th February 1950 and the 14th June 1951 respectively are hereby repealed.
- (2) In these byelaws, unless the context otherwise requires, the following expressions have the meanings hereby assigned to them:-
 - (a) “The Council” means the Ipswich Borough Council;
 - (b) “Park” means each of the parks, pleasure grounds, recreation grounds, tree belts, public walks, amenity areas, playgrounds, play spaces and open spaces hereinbefore mentioned and includes any part of a park;
 - (c) “Notice” means a notice displayed on a notice board affixed or set up in some conspicuous position in or near to any area of any park to which it relates and any references to the Council doing something by notice or setting any part of any park aside by notice shall be construed accordingly, provided that:-
 - (i) Any notice purporting to set aside any part of any park for any purpose or purposes shall specify the purpose or purposes for which that park is set aside; and
 - (ii) Any notice purporting to prohibit the closing of any thing or entry into any part of any park shall specify the thing prohibited or as the case may be the person or class of persons whose entry to part of any park is prohibited.

- (d) “Water” means any natural or artificial water, river, stream, pond, lake or ornamental lake, or any paddling pool;
 - (e) “Written permission of the Council” means the written permission of the Council’s Director of Recreation and Amenities for the time being or such officer as the Council may authorise in that behalf and may be made to persons generally.
2. The Interpretation Act 1978 shall apply to these byelaws as it applies to an Act of Parliament.
 3. A person shall not in any park:-
 - (1) Climb on any wall or fence in or enclosing the park, or any building, tree-barrier, railing, post or seat or any structure or ornament;
 - (2) Remove or displace any barrier, railing, post, seat, ornament or any part of any structure, or any implement provided for use in the laying out or maintenance of the park.
 4. A person shall not except with the written permission of the Council or in the exercise of some lawful right or privilege bring or cause to be brought into any park any cattle, hinny, sheep, pig, goat or deer.
 5. A person shall not except in the exercise of some lawful right or privilege bring or cause to be brought into any of the parks specified below any horse, pony, ass or mule:-

Airport Recreation Ground
 Alderman Road Recreation Ground
 Alexandra Park
 Arboretum – Upper and Lower
 Belstead Road Tree Belt
 Bourne Park
 Bramford Lane Recreation Ground
 Broadmere Road Recreation Ground
 Broomhill Park
 Brunswick Road Recreation Ground
 Castle Hill Recreation Ground
 Chantry Park (except the part known as “The Meadow”)
 Cherry Lane Recreation Ground
 Christchurch Park
 Clapgate Lane Recreation Ground
 Clapgate Lane Tree Belt
 Ellenbrook Open Space
 Gainsborough Recreation Ground
 Gippeswyk Park
 Holywells Park

Landseer Park
Lime Tree Avenue, Valley Road
Maidenhall Bowls and Tennis Ground
Newbury Road Recreation Ground
Norwich Road Gardens
Racecourse Recreation Ground
Robin Drive Children's Playground
Rushmere Recreation Ground
St Augustine's Recreation Ground
Sandy Hill Play Area
Sherrington Road Park
Stone Lodge Park
The Dales
Tuddenham Road Tree Belt
Victoria Street Play Space
Waller's Grove Open Space
Westwood Avenue/Valley Road Open Space
Whitehouse Recreation Ground
Whitton Recreation Ground

Provided that this byelaw shall not apply to any person taking part in any event or show held in the park with the written permission of the Council.

6. (1) A person shall not except in the exercise of some lawful right or privilege bring or cause to be brought into any park any barrow, truck, machine or vehicle (including a motor vehicle) other than:-
 - (a) a bicycle, tricycle or similar vehicle;
 - (b) a wheelchair, pushchair or perambulator drawn or propelled by hand or powered by battery and used solely for the conveyance of a child or of an invalid or disabled person;
 - (c) any ambulance, fire appliance, police motor vehicle or other emergency motor vehicle being driven or used in the course of an emergency.
- (2) A person shall not ride any bicycle, tricycle or similar vehicle in any park or in any part of any park except in any part of a park which the Council may by notice set aside for that purpose.

Provided that this byelaw shall not apply to persons taking part in any event or show held in the park with the written permission of the Council.

7. A person who brings a vehicle into any park shall not wheel or station it over or upon any flower bed, shrub or plant, or any ground in the course of preparation as a flower bed or for the growth of any tree, shrub or plant.
8. A person shall not in any park without the written permission of the Council affix, display or post any bill, placard, notice or advertisement.

9. A person shall not in any park enter upon:-
- (1) Any part of the park where the Council have by notice prohibited such entry;
 - (2) Any flower bed, or any ground in the course of preparation as a flower bed or for the growth of any tree, shrub or plant.
10. A person shall not in any park:-
- (1) Enter any water provided that this provision shall not apply to the proper use by any person of any water set aside by the Council as a swimming pool, bathing area or paddling pool.
 - (2) Foul or pollute any water.
 - (3) Kill, molest or intentionally disturb any animal, bird or fish or engage in hunting, shooting or fishing, or the setting of traps or nets or the laying of snares provided that this provision shall not apply to fishing with the written permission of the Council or to the carrying out with the written permission of the Council of a biological survey in such water as the Council may specify.
 - (4) Float any boat or model boat on any water except on such water as the Council may by notice set aside for such purpose, provided that this provision shall not apply to persons taking part in any event or show held in any park with the written permission of the Council.
 - (5) Make or use any slide so as to cause injury or danger to any other person.
 - (6) Skate on rollers, wheels, skateboards or other mechanical contrivances except in such part of any park as to the Council may by notice set aside for the purpose.
11. A person shall not cause or suffer any dog belonging to him or in his charge:-
- (1) To remain in any park unless such dog is under proper control and effectively restrained from causing annoyance to any person and from worrying or disturbing any animal and from entering any water provided that a greyhound shall not be deemed to be under proper control unless it is either muzzled or on a lead and provided also that in the parks known as the Upper Arboretum and the Lower Arboretum and that part of Chantry Park known as Chantry Park Gardens a dog shall not be deemed to be under proper control unless it is on a lead.
 - (2) To enter or remain in any part of any park which the Council have fenced off and set aside by notice as a Children's play area or paddling pool.

12. A person shall not in any park drive, pitch or chip a hard golf ball except in such part of any park as the Council may set aside for such purposes.
13. Where the Council by notice set aside any part of a park for the purposes of the playing of any game, and by reason of the manner of playing of such game or in order to prevent damage, danger or inconvenience to other persons frequenting the park, it is necessary for the player or players such game to have the exclusive use of any space in such part of the park, then a person shall not in any space elsewhere in the park play or take part in any such game so as to exclude persons not playing or taking part in the game from the use of that space.
14. A person resorting to a park and playing or taking part in any game for which the exclusive use of any space in the park has been set aside shall not:-
 - (1) play on the space any game other than the game for which the space is set aside;
 - (2) in preparing for playing or in playing, interfere with the proper use of the park by other persons;
 - (3) when the space is already occupied by other players, begin to play thereon without their permission;
 - (4) where the exclusive use of the space has been granted by the Council for the playing of a match, play on the space later than fifteen minutes before the time fixed for the beginning of the match unless he is taking part therein;
 - (5) play or take part in any game when the state of the ground or other cause makes the space unfit for the purpose of playing that game and the playing of such game or of any games is prohibited by notice.
15. A person shall not in any park:-
 - (1) Erect any post, rail, fence, pole, tent, booth, stand or other structure except with the written permission of the Council provided that where the Council grant consent for the use of any park or any part of any park for any particular purpose and that purpose cannot reasonably be accomplished without the erection of any such things as aforesaid then the Council shall be deemed to have given written permission for the erection of any such thing.
 - (2) Sell, offer or expose for sale, let or hire, or offer or expose for letting or hiring any commodity or article whatsoever except with the written permission of the Council.
 - (3) By operating, or causing or suffering to be operated any radio, cassette recorder or other similar machine or by playing any musical

instrument, singing or shouting make or cause or suffering to be made any noise which is so loud, continuous or repeated as to give reasonable cause for annoyance to other persons in the park.

16. (1) No person in any park shall release any jet-propelled or rocket-propelled model aircraft for flight or control the flight of such aircraft.
- (2) No person shall cause any jet-propelled or rocket-propelled model aircraft to take off or land in any park.
- (3) No person shall in any park release any power driven model aircraft for flight or control the flight of such an aircraft or cause such an aircraft to take off or, subject to 16(4) below, to land in any park with the exception of that part of Chantry Park which the Council has by notice set aside for the purpose of flying power driven model aircraft.
- (4) No person in Chantry Park shall release any power driven model aircraft for flight, or control the flight of such an aircraft, in any part of Chantry Park other than that part which the Council has by notice set aside for the purpose of the flying of power driven model aircraft and no person shall:-
 - (a) cause such an aircraft to take off; or
 - (b) without reasonable excuse, cause such an aircraft to land, other than in that part of Chantry Park so set aside.
- (5) No person shall:-
 - (a) in any park release any power-driven model aircraft for flight or control the flight of such an aircraft; or
 - (b) cause any such aircraft to take off or land in any park; unless it is either attached to a control line or is radio-controlled.
- (6) For the purpose of this byelaw unless the context otherwise requires:-
 - (a) “model aircraft” means an aircraft which either weights not more than 5 kilogrammes without its fuel or is for the time being exempted (as a model aircraft) from the provisions of the Air Navigation Order;
 - (b) “power driven” means driven by combustion of petrol vapour or other combustible vapour or other combustible substances or by one or more electric motors or by compressed gas;
 - (c) “radio controlled” means controlled by a radio signal from a wireless transmitter or similar device;

- (d) “jet propelled or rocket-propelled” means driven by a jet propulsion or by means of a rocket, other than by means of a small reaction motor powered by a solid fuel pellet not exceeding 2.5 centimetres in length.
17. A person shall not in any park fly, or cause or permit to be flown any kite in such a manner as to cause a nuisance or annoyance to any other person using the park.
18. A person who has attained the age of 15 years, shall not, in any park, use any apparatus which has been provided and is indicated by notice to be for the exclusive use of children below that age.
19. A person shall not in any park:-
- (1) intentionally obstruct, disturb, or annoy any other person in the proper use of the park;
 - (2) intentionally obstruct any person in the proper execution of any work in connection with the laying out or maintenance of the park;
 - (3) intentionally obstruct any officer or employee of the Council in the execution of his duty or obstruct any person assisting an officer of the Council in the execution of his duty.
20. An act necessary for or incidental to the proper execution of his duty in the park by an officer of the Council, or by any person or servant of any person employed by the Council, shall not be deemed to be an offence against these byelaws.
21. A person who contravenes any of the provisions of these Bye-laws shall be liable on summary conviction to a fine not exceeding £50.
22. Every person who shall infringe any byelaw for the regulation of any park may be removed therefrom by any officer of the Council or by any constable in any one of the several cases hereinafter specified, that is to say:-
- (i) where the infraction of the byelaw is committed, within the view of such officer or constable and the name and residence of the person infringing the byelaw are unknown to and cannot be readily ascertained by such officer or constable;
 - (ii) where the infraction of the byelaw is committed within the view of such officer or constable and from the nature of such infraction or from any other fact of which such officer or constable may have knowledge or of which he may be credibly informed there may be reasonable grounds for belief that the continuance in the park of the person infringing the byelaw may result in another infraction of a

byelaw or that the removal of such person from the park is otherwise necessary as a security for the proper use and regulation thereof.

23. These Bye-laws may be cited as the Borough of Ipswich (Parks) Bye-laws 1983.

THE COMMON SEAL of
IPSWICH BOROUGH COUNCIL
was hereunto affixed on the 26th October 1983
in the presence of:-

(sgnd) D K GRIMWOOD
Mayor

(sgnd) MICHAEL A EVANS
Director of Administration

The foregoing byelaws are hereby confirmed by the Secretary of State and shall come into operation on the 15th day of February 1984.

Signed by the authority of the Secretary of State

G I de DENEY
An Assistant Under-Secretary of State

1 FEB 1984
Home Office
LONDON, SW1

I hereby certify pursuant to Section 238 of the Local Government Act 1972 that:

- (1) the Borough of Ipswich (Parks) Bye-Laws 1983 were made by the Ipswich Borough Council on 26 October 1983;
- (2) the Bye-Laws printed herein are a true copy of the said Bye-Laws;
- (3) the said Bye-Laws were confirmed by the Secretary of State on 1 February 1984;
- (4) the date fixed by the Secretary of State for the coming into operation of the Bye-Laws was 15 February 1984.

M A Evans
Director of Administration
Ipswich Borough Council
the Property Officer to make
this certification

January 2013
Holywells Park, Ipswich

Appendix 18 Park Management Structure

Parks and Open Spaces Structure Chart

