

# SOUTHERN COUNTRY PARK GREENSPACE ACTION PLAN (GAP) 2018 – 2023



Produced by the Countryside Management Service  
On behalf of East Herts Council



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## 1. SITE SUMMARY

|                 |  |
|-----------------|--|
| Site name:      | Southern Country Park                    |
| Site Address:   | Thorley<br>Bishops Stortford<br>CM23 4JT |
| Grid Reference: | TL 475 219                               |
| Size:           | 23 hectares (56 acres)                   |
| Owner:          | East Herts Council                       |

### Vision Statement

Southern Country Park is an attractive open space on the outskirts of Bishop's Stortford; extremely popular and valued by local residents and visitors, with a distinct country park feel. The park has retained the prestigious Green Flag Award since 2008.

The vision over the next five years is to maintain and enhance the park, keeping up the same high standards that visitors have come to expect while doing all we can to support and benefit local wildlife and habitats.

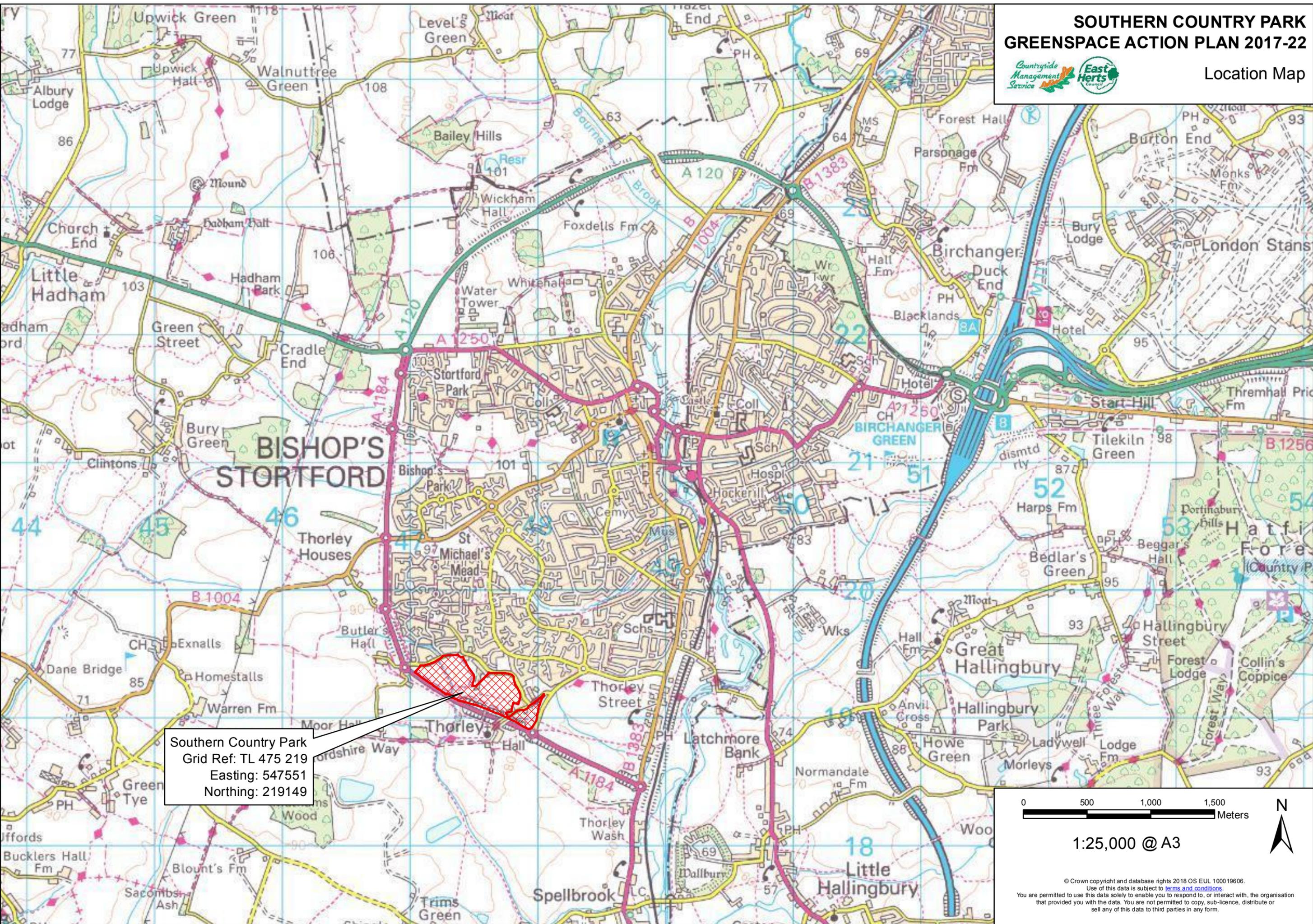
This document sets out the management, maintenance and development framework for the park over five years, to work towards the above vision. It is recognised that the systems in place to manage the park are already very well established and described in previous plans. As such the GAP seeks to identify subtle improvements and further refinement to the established systems.

The structure of the plan has been based on the Green Flag criteria, to explore the range of issues that are important for a successful green space. The plan includes map-based annual management programmes and a timetabled action-plan, both located towards the end of the document. It will be reviewed annually, so that actions can be revised as necessary over the life of the plan.

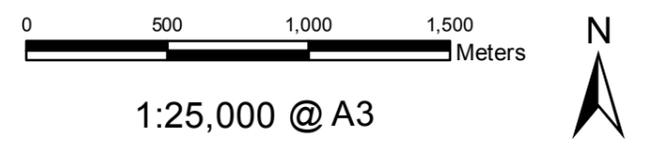
# SOUTHERN COUNTRY PARK GREENSPACE ACTION PLAN 2017-22



Location Map



Southern Country Park  
Grid Ref: TL 475 219  
Easting: 547551  
Northing: 219149



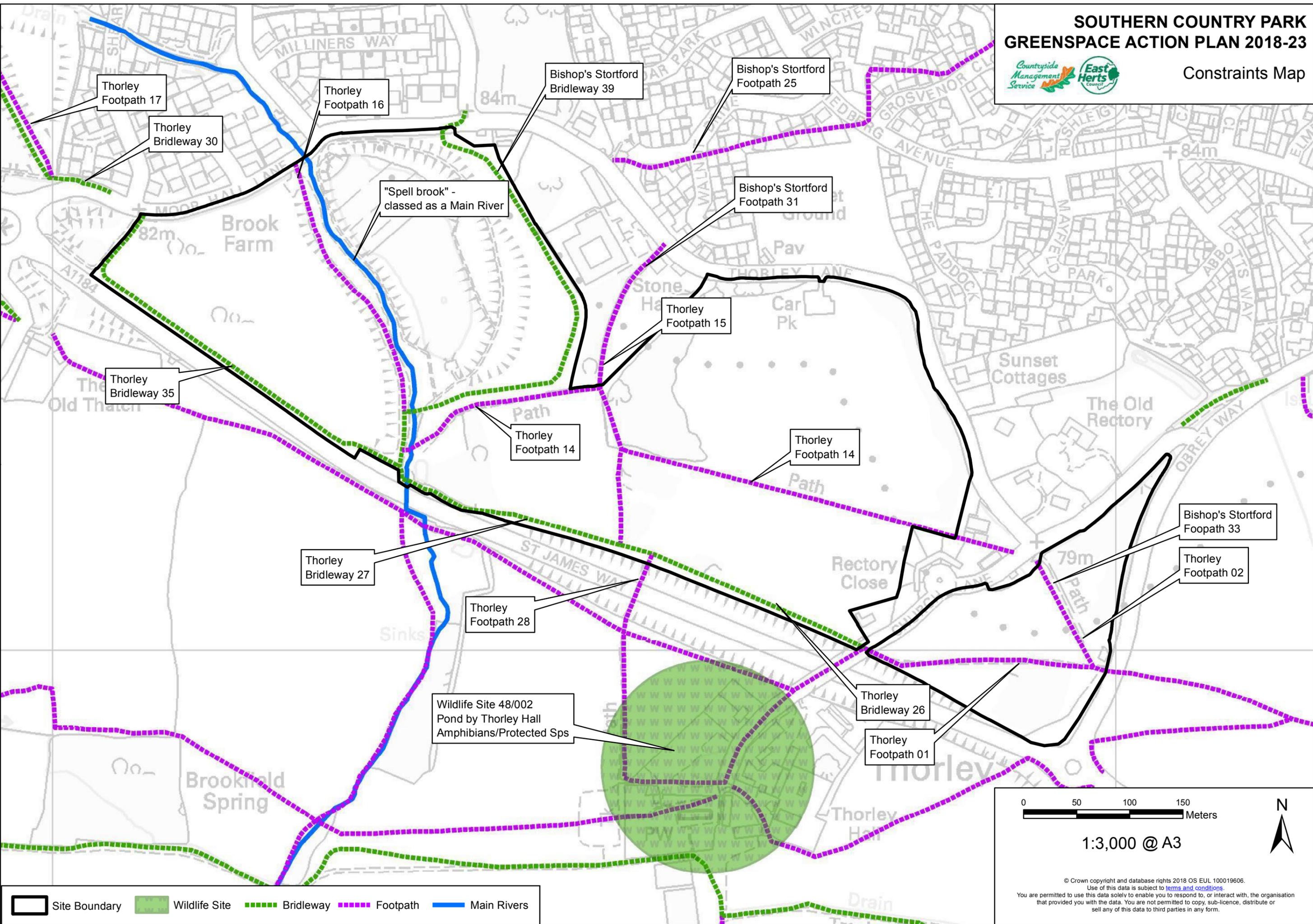
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## Constraints Map



Site Boundary
  Wildlife Site
  Bridleway
  Footpath
  Main Rivers

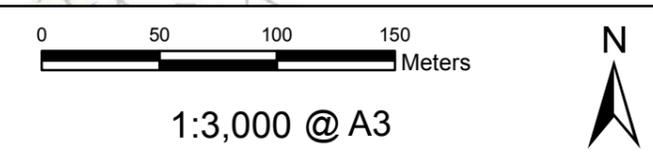
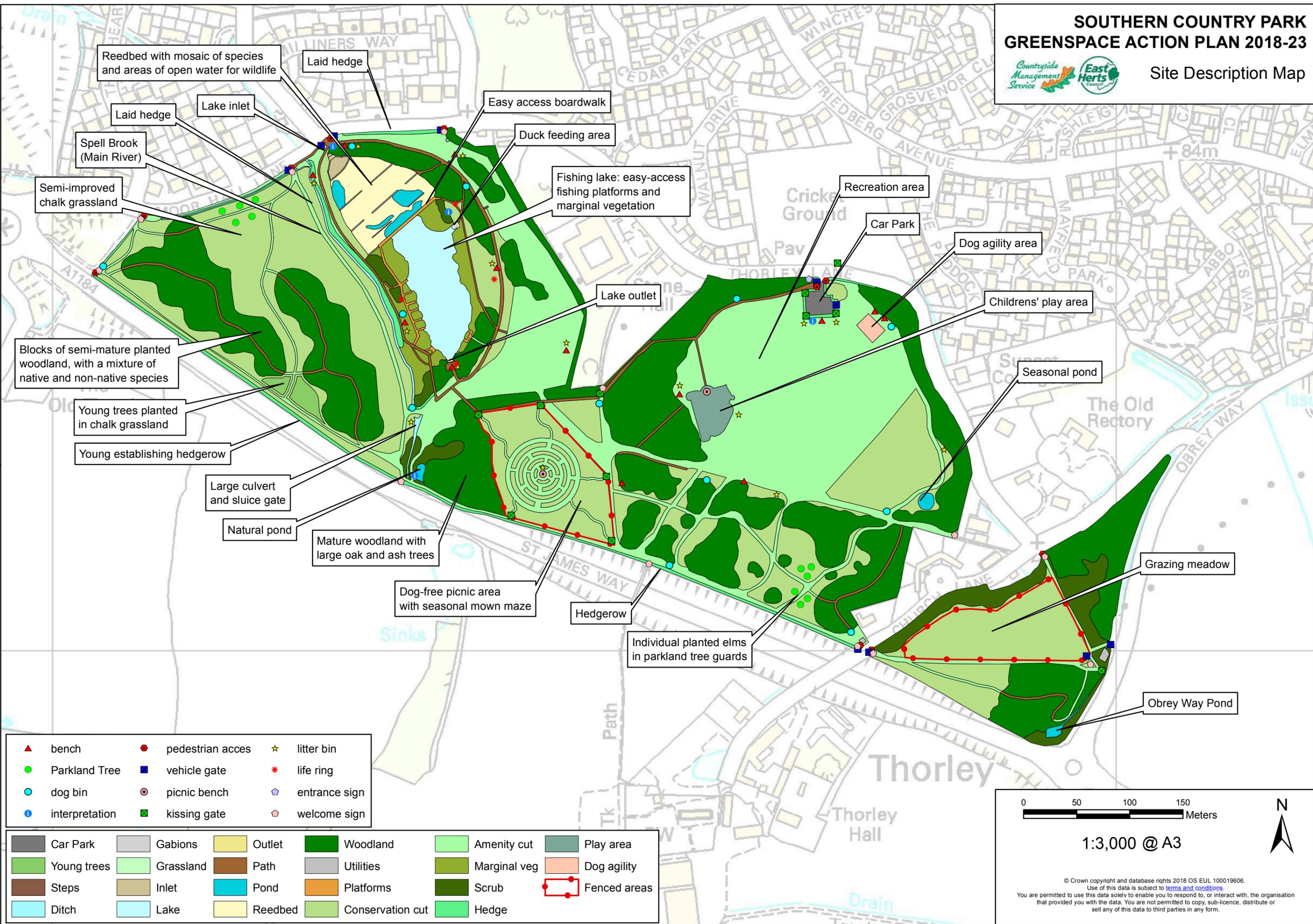
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## Site Description Map



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## **2. SITE DESCRIPTION**

### 2.1 Context

Southern Country Park is a 23 hectare (56 acre) public greenspace, located on the outskirts of Bishop's Stortford. The site is owned by East Herts Council, and managed in partnership with the Countryside Management Service (CMS) and a dedicated Friends Group (Friends of Southern Country Park – FoSCP).

Alongside the previous GAP, an additional management plan was developed, entitled "Southern Country Park and Beyond 2013-2018," which established and promotes linking routes on foot between five Council owned greenspaces in Bishop's Stortford, centred on Southern Country Park, to maximise its use by the surrounding communities and promote non-motorised transport links.

### 2.2 Landscape

Southern Country Park lies between the suburban limits of Bishops Stortford and the flat farmlands described in Hertfordshire Landscape Character Assessment as "arable land with some pasture and isolated farms and occasional small settlements". The landscape is generally flat but gently sloping eastwards towards the River Stort. Soils are generally calcareous clays, over a geology of chalky till and glacial drift. It is identified as Green Belt land in the East Herts Local Plan.

### 2.3 History and Archaeology

Southern Country Park is still a relatively new park, created in the early 1990s by Countryside Properties PLC as part of a Section 106 planning obligation agreement relating the St Michael's Mead residential development. The Council took over the ownership and management of the park in 2001. Southern Country Park is situated immediately to the south of St Michael's Mead.

## 2.4 Habitats

### 2.4.1 Water

Aquatic habitats include:

- A locally significant reedbed – built as a secondary treatment system for road run-off from the adjacent St. Michael's Mead housing development (a Sustainable Urban Drainage System, or SuDS). It has been designed with a series of surface gabion baffles to encourage maximum water dispersal throughout the bed ensuring maximum treatment capacity. It is planted with *Phragmites communis* (Norfolk reed), *Typha latifolia* (Greater reed mace), *Typha angustifolia* (Lesser reed mace), and *Scirpus lacustris* (Bulrush); to maximise effectiveness of run-off filtration whilst still providing an attractive habitat for wildlife.
- Water then flows from the reedbed into a “balancing pond”, approx. 7000m<sup>2</sup> of open water. It is utilised as a fishing lake. The margins have been planted with a variety of native aquatic plants to create a biodiverse wet margin which also serves to limit access to the water's edge. A wildfowl feeding area removes feeding activity from the areas set aside for fishing.
- Two small ponds – a permanent “natural pond” and seasonal “dew pond”.
- A small pond/wetland area in the south-east corner of the site next to Obrey Way and the A1184, which serves as a rudimentary SuDS for road run-off in the vicinity.

### 2.4.2 Grasslands

Grassland features include:

- During the initial landscaping of the park, a large area of chalk was used to create a long linear bank to the west of the Spell Brook. This provides ideal conditions for many flowering plants associated with chalk grasslands.
- Many areas are managed as conservation grassland, with an annual cut and lift operation to encourage diverse flora.
- Sheep graze in an area in the east of the park.
- The remaining grassland is amenity mown; on footpaths through conservation grass areas and the large, terraced recreation area beneath the car park.

### 2.4.3 Trees, Woodlands, Hedgerows

- When the park was created, trees were planted in small designed blocks across the park. Now developing well, these young even-aged woodlands contain a wide species mixture of broadleaved trees, including a good proportion of oaks, maples and cherries.
- Some selective thinning has been carried out under the previous plan, creating pools of light in some areas to encourage early development of regeneration.
- The outer edges of blocks contain a slightly different species mix, with a greater proportion of hazel and blackthorn, crab apple and cherry.
- Recently planted groups of native trees within conservation grassland areas, and individually planted standards in parkland-type tree guards.
- A set of established and developing hedgerows around much of the boundary.
- Small areas of mature, native woodland.

## 2.5 Wildlife

A range of data on flora and fauna within the park is informally collected by members of FoSCP – including records of bird species, dragonflies, butterflies and moths, mammals and wild flowers. The lake and reedbed provides habitat for a range of different water birds, including seasonal common terns and black-headed gulls, as well as fish and invertebrates. Visiting reed and sedge warblers can be found in the summer. The ponds provide breeding grounds for frogs, toads and newts; areas of deeper water provide a refuge for dragonfly, damselfly and mayfly larvae; and water voles have been recorded on the site. The chalk banks, rich in wildflowers, provide excellent conditions for bees, hoverflies and butterflies.

## 2.6 Access, Facilities and Infrastructure

### *2.6.1 Access*

- Network of surfaced paths, providing an “easy-access” route for all visitors.
- Network of amenity mown grass footpaths.
- Kissing gates and bollards at entrances facilitate pedestrian access and control unauthorised vehicle access.
- A number of Public Rights of Way (footpaths and bridleways) run through the site.
- Free public car park providing space for up to 18 cars.

### *2.6.2 Facilities*

- There are ten “easy access” fishing platforms or ‘swims’, including one specifically designed for disabled visitors and schools.
- An easy-access boardwalk crossing the wetland between lake and reedbed. This was constructed to resolve a longstanding safety concern with young people walking out onto the gabions.
- Fishing in the park is managed under a ticketing scheme, allowing the public to fish the lake providing they have a valid rod licence and purchase a ticket from the Council’s Water Bailiffs who patrol the area.
- The fish stocks are monitored and managed by an external contractor. See the results of a fish population survey carried out in 2015 in Appendix 6.4.
- The recreation area contains a children’s play area, football area and permanent bespoke dog agility course and fenced area for training. It is a large open area of grass used for activities such as kite flying and ball games.
- A fenced “dog-free meadow”, with a circular maze cut into the long grass each year.
- A permanent orienteering course with three routes, identified on the ground by posts with coloured bands. Users can download maps and information from the Council’s website.
- Several hidden Geocaches.
- Slacklining - three timber “anchor posts” for users to set up their own slacklines.
- A variety of benches and picnic tables.

### *2.6.3 Interpretation and Signage*

- Suite of four interpretation panels.

- Entrance signage.
- Waymarking of footpath routes.
- Water bailiff and fishing information signs.

## 2.7 Community, Management and Events

### *2.7.1 Site Management*

Southern Country Park is regularly visited and inspected by the Council, CMS and grounds contractor staff. The core maintenance items such as cleansing, grass cutting and woodland management works are scheduled as part of the Council's main Grounds Contract, held by grounds maintenance contractor John O'Conner (JoC).

The Council work in partnership with CMS to produce the Greenspace Action Plan and to deliver a range of activity in the park. CMS is supported financially by the Council as part of a county-wide local authority partnership. CMS are part of Hertfordshire County Council, working with local authorities, voluntary organisations and communities to help them enjoy and care for the Hertfordshire's environment.

### *2.7.2 Friends of Southern Country Park (FoSCP)*

Friends of Southern Country Park are a group of local volunteers who act as ambassadors for the park. The tasks they undertake are a valuable contribution to the maintenance and development of the park. They base their own task calendar on this action plan, with support and guidance from CMS. On top of the volunteer activity they deliver, FoSCP are able to respond to the public and provide immediate feedback to the Council from park users.

### *2.7.3 Events*

Get Park Active is an annual free event organised by the Council; an afternoon of activities for families and children to celebrate the national Love Parks Week.

### **3. Assessment and Analysis of Opportunities**

#### 3.1 A Welcoming Place

The park is well served by an extensive network of footpaths, but a missing link has been identified connecting the reedbed area to the somewhat disconnected western quarter. A linking bridge across part of the Spell Brook would enable good access between both these sections at the top end of the site, without users having to leave the park itself. The existing hedgerow can be cut back to create a gap, a bridge or boardwalk section installed to cross the ditch, and the path surfacing extended to meet it.

The play area does not currently provide well for younger children, and should be upgraded and expanded to provide for a wider age range.

There is opportunity to enhance the “seasonal pond” situated at the bottom of the recreation area. Coppice material produced from the woodland edge management can be used to create a low hurdle fence around the pond, to help keep dogs out and allow the banks a chance to vegetate (this should be supplemented by additional planting of native wetland plants). The pond is bordered by an arc of low timber bollards, demarcating the edge of the slope into the pond. The bollards could be put to better use if turned into simple benches by fixing sleepers or similar across pairs of bollards; a low cost provision of additional seating, allowing for visitors to take more time to enjoy this part of the park.

In keeping with the non-motorised access ethos of the Southern Country Park and Beyond project, and to further facilitate pedestrian access into the site from the surrounding housing, the access from Southern Country Park into the adjacent Cricket Ground could be improved; replacing the stile with a kissing gate, and improving visibility of/from the road by keeping vegetation cut back at this point.

The free car park is well used, but the surfacing is beginning to degrade. Although not urgent, its condition should be re-assessed in year 2 of the plan. This also allows the design of the car parking bays to be re-evaluated with a view to creating at least one disabled car parking bay. Such a redesign would need to make sure that the kissing gates do not get blocked by parking cars.

A proposed new housing development (Bishop’s Stortford South) would increase usage of Southern Country Park and therefore pressure on its facilities, including car parking and paths. Should this development go ahead, it will be necessary to consider upgrading or expanding the existing car park or building a second car park. Walking routes may also require surfacing or re-surfacing.

The information provided on site via interpretation panels should reflect the current management practices within the park. Given the additional focus on managing the developing woodlands, there is opportunity and justification to install additional interpretation describing the habitat management works that will be occurring from this point on. It would also be valuable to install an additional interpretation panel close to the reedbed, describing the wildlife that might be found in the reedbed.

### 3.2 Healthy, Safe and Secure

A risk assessment and hazard review is undertaken by the Council's Parks and Open Spaces team on an annual basis to ensure the park remains a safe and enjoyable place to visit. This has been included in the GAP action table, along with a separate action for subsequent implementation of the work identified. Risk assessments are reviewed and updated annually and monitored through regular site inspections. The grounds maintenance contractor produces risk assessments for their staff and equipment, which are also monitored through the contract inspection procedures.

Where hazards on surfaced paths are identified, for example caused by tree roots, immediate action should be taken to remedy these.

Formal tree safety surveys are undertaken annually by specialist arboriculturalists; any safety works on trees are prioritised according to a risk assessment. Deadwood should be retained where possible, but removed from trees and overhanging paths. Monoliths should also be retained where possible.

The children's play equipment is inspected five times per week by the grounds maintenance contractor, monthly by Council area inspectors and annually by an RPII (Register of Play Inspectors International) inspector, ensuring it continues to meet safety standards. The play area is left intentionally unfenced, so that it feels very much a part of the wider park, rather than separate from it.

### 3.3 Clean and well maintained

#### 3.3.1 Updates to maintenance activities: Grounds Contractor

- The cutting of path edges needs to include the newly created section of surfaced path between the recreation area and the maze area.
- The condition of all footpath routes, surfaced and unsurfaced, should be audited annually, and maintenance works implemented as required. This should include assessment of drainage requirements.
- As part of this, the footpath attached to the play area is known to require such maintenance, and has been included in the action plan under year 1.
- The effectiveness of the drainage pond in the south-east corner of the site can be improved by a one-off action to remove the *typha* currently establishing. The annual strimming of the area should be continued to prevent development of scrub.
- The effectiveness of the drainage ditches around the park, including those around the outer boundary (specifically Thorley Lane, Obrey Way, and Moor Hall Lane) should be monitored and activity undertaken to clear them annually, as necessary.
- Maintain visibility to car park and footpaths from roads by cutting back vegetation at access points. Keep vegetation around benches, signs, play equipment cut back.
- The dog waste bins are visited weekly and litter bins around the site are visited daily as part of the Ground Maintenance Contract, litter levels monitored.

#### 3.3.2 Updates to maintenance activities: FoSCP

- The condition of waymarking posts and discs throughout the park should be reviewed annually and any replacements made as necessary – in particular the Southern Country Park and Beyond routes that run through the park.
- Damage is being caused by trimmers to the legs of interpretation; to prevent this from continuing, circles of turf immediately around the legs can be removed and replaced with gravel, eliminating the need for strimming right up to the legs. Generally, all of the interpretation panels can be kept clean, which will help preserve their lifespan.
- Some improvement to the aftercare regime of planted trees is required - specifically the young trees in the conservation grass in the western quarter, and the newly planted oaks and elms.
- An ongoing effort to remove all of the remaining tree guards from established trees
- Continued annual Himalayan balsam control (see 3.4.2).
- Monitor condition of footpaths, including bark chipping paths through woodlands.
- Keep the fenceline around the Dog Free Meadow clear of self-set saplings and intrusive shrubs, retaining any Travellers Joy plants (*Clematis vitalba*) for their value to pollinating insects. This clearance should be selective to retain habitat for wasp spiders, over-wintering insects and small mammals.

## 3.4 Sustainability

### *3.4.1 Woodchip and timber*

The pathways within the larger blocks of woodland are surfaced with woodchip produced from woodland management operations within the park, which is annually reviewed and topped up as necessary. Woodchip arising from these operations could be put to further use if stored on site and allowed to rot down, at which point it can be used as mulch on establishing trees and hedgerows. This makes use of all available local resources, reducing the need to import material produced elsewhere.

Using FSC certified timber for all appropriate structures on the site, and using products that can be recycled at the end of their life, goes towards making the site more sustainable. Ensuring that all material removed from the site is disposed of in the correct manner also supports this.

### *3.4.2 Invasive species*

Annual control of Himalayan Balsam was carried out under the previous plan. Occurs in the inlet to the reedbed, the balancing pond's outflow and the adjacent brook. Manual pulling carried out by FoSCP. Less is growing back each year, but it has been kept as an annual item in the hope of ultimately eradicating it from the site. If this is to be successful, it would be worth investigating upstream for any other colonies of the plant, and to work with landowners to expand the removal scheme as needed.

The presence of Ragwort in the grasslands is monitored. It is not necessarily an issue where occurring in the conservation grassland (it is the food plant of the cinnabar moth, and a good pollen source for bees), unless the arisings from the cut & lift are to be used as animal fodder, as it is toxic to cattle. Its presence should be monitored most closely in the sheep enclosure and adjacent areas, and if necessary carry out hand-pulling in July.

### *3.4.3 Biosecurity*

Working closely with organisations (such as Forestry Commission and Hertfordshire County Council) in relation to biosecurity will provide up to date information on plant and tree health issues across the country and further afield. Tree planting stock procurement recommendations are provided in the specifications.

## 3.5 Biodiversity and Heritage

### *3.5.1 Woodlands*

The young blocks of planted trees are at a stage of development where systematic thinning can play a crucial role in helping them mature into well-structured woodlands. Previous intervention has been in the form of selective thinning, creating pools of light in certain areas to encourage establishment of natural regeneration and ground flora. Whilst this is a positive outcome, it can also increase branching and lateral growth in the retained trees, which can be counter-productive at this relatively early stage of development. Instead, intervention at this stage should aim to promote vertical growth and stem development; selective felling should come later when the woodlands are more mature. As such, the focus for this plan period should be on the systematic removal of poorly formed and suppressed stems across all the stands, creating conditions for the better-formed individuals to flourish. This will also help to break up the somewhat uniform “grid” appearance of the woodland blocks.

There is scope to subtly open up the path routes through the woodlands, which currently feel like narrow corridors through the trees. A heavier selection of trees should be removed either side of the footpath routes as part of the thinning work, creating small-scale woodland rides. The improved light conditions will be beneficial to ground flora and development of woodland understorey. In year 1, this includes the section of footpath running along part of the site boundary, which is currently heavily shaded. Opening up the canopy along this particular path will make this route feel less enclosed and safer.

The edges of the woodlands consist largely of coppice suitable species, in particular hazel. To further improve habitat diversity, and potentially provide a usable timber product, sections of the woodland edges along existing “scallops” can be coppiced on rotation by FoSCP. A rotation of emergent coppice vegetation will be fantastic for wildlife, especially butterflies.

Whilst work is carried out as above in each woodland block, efforts should be made to ensure all remaining tree guards and mulch mats leftover from the original planting are removed in the process.

The mature woodland area to the south of the fishing lake should be managed by non-intervention. Works to mature trees will be undertaken only where necessary to maintain the safety of park users. If and when trees require safety works, efforts should be made to retain dead wood habitats both standing and fallen.

### *3.5.2 Grasslands*

Largely, the established system of grassland management should continue, providing a combination of amenity areas, conservation grassland and mown footpaths. To further enhance biodiversity, small areas of longer grass should be allowed to develop; areas around the woodland edges should be cut on at least a two year rotation (depending on development of scrub), with this cut being carried out in early April subject to weather conditions, to ensure habitat provision for overwintering invertebrates.

The area of grassland on the lower terrace of the recreation area is currently managed by annual cut and lift yet only seeded with amenity grass mix. To improve species diversity and benefit invertebrates, it should be cut, harrowed and seeded with a wildflower seed mix, mown regularly through the first year after seeding, then returned to annual cut and lift the following year.

In 2017, six disease-resistant elms were planted in an area of conservation grassland. These will develop into large open-grown trees, giving shade and shelter to people and wildlife. This should be replicated in the recreation area; a number of oaks individually protected in parkland type tree guards could be planted around the outer edges of the area, bringing visual diversity to the horizontal landscape and provide shade for people to picnic under. This planting should be maintained by the Grounds Maintenance contractor.

The young trees in a circle at the centre of the dog free meadow are establishing well, but they are not filling out as quickly as originally hoped. Originally there was a plan to have them joined together in a living structure, however lateral branching has not been sufficient to enable this. Additional similar trees, planted in between the existing trees will go towards achieving this. The planted trees should be included in the wider aftercare regime.

### *3.5.3 Grazing*

In 2017 the number of sheep was doubled to better prevent the development of scrub, and in the winter the area was flailed to remove the established patches of bramble. To ensure this does not re-establish the stocking should be maintained at this level, subject to ongoing monitoring. FoSCP continue to check the integrity of the enclosure on an annual basis.

The developing patches of bramble and teasel in the grassland adjacent to the grazing area should be allowed to expand, to ensure this valuable habitat is still represented, providing good cover for birds. The path route through the centre of this area should be kept clear. There is a significant invasion of hemlock in this area. This should be controlled by cutting twice annually, in spring prior to flowering to remove mature plants and in late summer to remove seedlings and any regrowth. This should take place in year 2, and the population of hemlock should be reassessed in year 3 to determine whether continued control is necessary.

#### 3.5.4 Wetlands

The reedbed is managed by an annual rotation of cutting and raking, the core aim being to limit accumulation of plant matter and maintain transient areas of open water. The zoning has been revised for the new plan (see map in specifications, section 6.1). This design ensures some vegetation within the core area is always left uncut, providing continuity of habitat for nesting birds. Until now, the main reed species (*Phragmites*, *Typha* and *Scirpus*) have been managed separately; there is consensus now that effectiveness would be maximised by cutting all species indiscriminately. An additional annual action to cut scrub on the western banks of the reedbed has been included, to retain views.

Natural processes of succession mean that the establishment of willow and birch scrub on the edges of the reedbed is inevitable. It is a valuable habitat in itself, but needs to be cut or pulled on rotation to preserve the reedbed. A three year rotation, working on a different section each year, will provide a continuity of emergent vegetation and warbler perching spots, whilst ensuring emergent scrub remains small enough to be pulled rather than cut. As part of this operation, willows growing from the gabions should be cut and treated on an annual basis.

The marginal vegetation around the fishing lake should be managed in a similar way. An annual operation to cut or pull developing scrub will help to maintain areas of open water within the margins. These margins are retained to control access to sensitive parts of the water's edge and to prevent erosion of adjacent footpaths.

Management of fish stocks in the lake should follow recommendations from a fish population survey carried out in 2015 (see Appendix 6.4). The primary objective is to reduce the number of carp to reduce negative pressure on other fish species, creating a more positive environment for anglers and the lake itself. Annual monitoring of fish health and management of fish stocks should take place to maximise the quality of the fishery. The water bailiff scheme and associated signage should also be reviewed annually.

During the winter of 17/18, improvements were made to the "natural pond" downstream from the balancing pond. A dilapidated fence was replaced, dense bramble around the banks was cleared, overhanging trees were pruned and a 'floating rope' installed to bisect the pond and keep half of the pond undisturbed from swimming dogs, allowing better aquatic habitat conditions. The regrowth of vegetation and the effectiveness of the floating rope should be monitored.

#### 3.5.5 Hedgerows

The cutting of the established hedgerows on the site should be brought in line with the specification recommended by Natural England. This will increase the availability of blossom for invertebrates, provide more berries for overwintering birds, and improve the structure and longevity of the hedge.

The younger sections of hedge planted under the previous plan are protected with spiral guards which will need to be removed by year 5 (by which time the hedge plants should be sufficiently established), in preparation of possible laying under the subsequent plan. They should be maintained weed-free through annual mulching and weeding.

### 3.6 Community Involvement

The local community should be informed of and involved in the management of the park via on-site interpretation panels, the activity of FoSCP, additional volunteer activities and guided walks. The creation of a new Greenspace Action Plan provides the ideal platform to work in partnership with FoSCP and other interested parties to discuss, programme and deliver a variety of projects that contribute towards the achievement of the overall aims and objectives for the park.

The “Friends Group” model has been independently assessed and accredited to nationally recognised “Investing in Volunteers” standard. Regular meetings are convened, the group development needs established and ongoing training provided. A flyer of the Friends’ activities is produced to advertise task days, walks and talks, and to recruit new members. CMS arrange larger working parties to deliver more significant tasks and projects as part of their Midweek Volunteer programme. CMS also provide ongoing support for FoSCP.

CMS continue to arrange regular guided walks at Southern Country Park through the county-wide “Walks and More” events programme. These events provide an opportunity to introduce and share management proposals with park users and to take on board further suggestions and aspirations that the public would like to see in their open space.

### 3.7 Marketing

As with all Council parks and open spaces, Southern Country Park is marketed and promoted through the Council’s magazine “Link” that is sent to every household in the district. The Council’s website has a page dedicated to Southern Country Park including a map, management plans, related documents and details of the Friends Group. Events and activities are advertised through posters on site, and wider media coverage.

FoSCP have an active Facebook page with details of tasks completed and wildlife, with accompanying photos: <https://www.facebook.com/foscp.bs>

The park is listed on the ParksHerts website ([www.parksherts.co.uk](http://www.parksherts.co.uk)) - a mobile-first website application providing a single information point for over one hundred of Hertfordshire’s parks and open spaces, from recreation grounds through to woodlands and award winning flagship parks, irrespective of administrative ownership. It provides a way for people to discover and enjoy these places, supporting people to make outdoor exercise part of their everyday lives.

## 3.8 Monitoring and Review

### *3.8.1 Monitoring the Action Plans*

This GAP is intended to cover a period of five years, from April 2018 to March 2023. As actions are carried out, they will be assessed and any issues recorded. An annual review will consider all of the issues recorded throughout the year, feedback received from the public, and any changes to policy, legislation and finance. Key stakeholders including FoSCP will be invited to walk in the park with managers to discuss progress and note any new actions that might be considered for the next year. New actions agreed will be added to the Action Plan.

The GAP and annual action plans will be made available to view and download from the Council's website; park users will be able to monitor the plans and their progress.

Success of the action plans will be evaluated in the following ways:

- The completion of tasks on time and within the resources allocated.
- Feedback from stakeholders and FoSCP at annual meetings.
- Feedback from park users.
- Positive biodiversity gains.

### *3.8.2 GAP Five Year Review*

At the end of the Plan's five year term, the ongoing management of Southern Country Park will require a comprehensive review in light of the success and progress of the plan. The review and preparation of new action plans is an important and constructive part of the management process. It will be subject to stakeholder and community engagement before the next five year GAP is formally adopted by the Council and implementation can commence.

## **4. Aims and Objectives**

### **A. A WELCOMING PLACE**

To provide a safe and welcoming open space for local residents and visitors to enjoy

- A1 Enable users to access all areas of the park using a well-connected network of surfaced and unsurfaced footpaths.
- A2 Improve the seasonal pond to maximise amenity and biodiversity value
- A3 Continue to develop and promote non-motorised transport links beyond the park in the ethos of the 'And Beyond' project
- A4 Ensure adequate provision of car parking facilities
- A5 Enable visitors to understand current habitat management practices of the park through on-site interpretation
- A6 Improve the play area to provide for a wider age range

### **B. HEALTHY, SAFE AND SECURE**

Ensure that visitors to Southern Country Park feel safe and able to enjoy the site at all times.

- B1 Carry out regular risk assessments of the facilities, natural features and general environment of Southern Country Park and action accordingly.
- B2 Carry out reactive tree works to address any safety issues
- B2 Ensure the play equipment is maintained to a high standard of safety

### **C. CLEAN AND WELL MAINTAINED**

Ensure that the site is kept clean and that all aspects of the site are well maintained

- C1 Maintain high standards of grounds maintenance contract activity
- C2 Ensure Friends of Southern Country Park can continue to contribute to the ongoing maintenance of the park in a structured way

### **D. SUSTAINABILITY**

Ensure all management operations are as sustainable as possible.

- D1 Maximise the use of woodchip produced through woodland management works, eliminating the need to import material.
- D2 Ensure any timber used in structures on the site is FSC certified
- D3 Continue to reduce presence of invasive plant species in the park

## **E. BIODIVERSITY AND HERITAGE**

Conserve and enhance the woodland's habitats, wildlife and archaeological features.

- E1 Manage the plantations to maximise biodiversity and amenity value and to enable them to mature into well-structured and sustainable woodlands.
- E2 Improve the diversity and wildlife value of grassland habitats
- E3 Protect and enhance the valuable aquatic habitats to improve biodiversity, maintain their functionality, and to sustain fishing interests
- E4 Manage the hedgerows to maximise biodiversity and maintain effective screening

## **F. COMMUNITY INVOLVEMENT**

Provide opportunities for the local community to engage with and participate in the management of the park.

- F1 Continue to support, promote and develop Friends of Southern Country Park
- F2 Encourage community and volunteer involvement with practical conservation tasks and events
- F3 Continue to offer all visitors and residents a variety of events and activities at Southern Country Park.
- F4 Develop ways in which Southern Country Park can contribute to health, fitness and well-being

## **G. MARKETING**

To promote awareness and interest in Southern Country Park

- G1 Continue to develop and promote a range of events and activities with partners, key stakeholders and the community; raising awareness and interest in the park.
- G2 Promote awareness and interest in the park through regular publications and news items across a variety of media – online, newsletters, posters, leaflets etc

## **H. MONITORING & REVIEW**

To learn from experience, monitor effectiveness, and refine work programmes to make the best use of resources.

- H1 Monitor impact of overall management and uses of Southern Country Park
- H2 Update the progress of the action plan each year on the website

## 5. Action Plan and Maps

| ANNUAL MANAGEMENT ACTIONS |         |   |          |               |         |                |           |                   |       |
|---------------------------|---------|---|----------|---------------|---------|----------------|-----------|-------------------|-------|
| Ref no                    | Obj ref | Action  | When     | Delivery by   | Lead by | Est Cost       | Funding   | Status (complete) | Notes |
| 0.1                       | C1      | Deliver Grounds Maintenance Contract                      | All year | JOC           | EHC     | Contract rates | GM budget |                   |       |
| 0.2                       | C1      | Carry out audit review of pathways                        | April    | EHC           | EHC     | Internal       | -         |                   |       |
| 0.3                       | E3      | Review of water bailiff scheme and associated signage     | April    | EHC           | EHC     | Internal       | -         |                   |       |
| 0.4                       | E3      | Review fish survey and action accordingly                 | April    | EHC           | EHC     | Internal       | -         |                   |       |
| 0.5                       | E3      | Monitor and manage fish health and stocks                 | April    | EHC           | EHC     | Internal       | -         |                   |       |
| 0.6                       | C2, F1  | FoSCP meeting to agree summer work programme              | April    | EHC CMS FoSCP | CMS     | Internal       | -         |                   |       |
| 0.7                       | C2      | Check maze and sheep field fencing, repair as necessary   | April    | FoSCP         | CMS     | Internal       | -         |                   |       |
| 0.8                       | C2      | Aftercare of planted trees: remove weeds and apply mulch  | April    | FoSCP         | CMS     | Internal       | -         |                   |       |
| 0.9                       | E2      | Sheep put on to grazing meadow                            | April    | Grazier       | EHC     | Agreement      | -         |                   |       |
| 0.10                      | A1, C2  | Review of waymarkers and discs, replace as necessary      | April    | FoSCP         | CMS     | Internal       | -         |                   |       |
| 0.11                      | D3, E2  | Monitor ragwort in conservation grass and grazing areas   | May      | CMS FoSCP     | CMS     | Internal       | -         |                   |       |
| 0.12                      | C1, E2  | Cut grass maze (first annual cut)                         | May      | JoC           | EHC     | Contract rates | GM budget |                   |       |
| 0.13                      | D3, E3  | Himalayan Balsam pulling from reedbed, outflow and brook. | Jun-Sep  | CMS FoSCP     | CMS     | Internal       | -         |                   |       |
| 0.14                      | B3      | Play area safety audit by RPII Inspector                  | July     | EHC           | EHC     | Contract rates | GM budget |                   |       |
| 0.15                      | D1, A1  | Spread extra woodchip on woodland paths as necessary      | July     | FoSCP         | CMS     | Internal       | -         |                   |       |
| 0.16                      | F4, G1  | Get Park Active event                                     | July     | EHC           | EHC     | Internal       | -         |                   |       |
| 0.17                      | C1, E2  | Cut grass maze (second annual cut)                        | Sep      | JoC           | EHC     | Contract rates | GM budget |                   |       |
| 0.18                      | C2, F1  | FoSCP meeting to agree winter work programme              | Oct      | EHC CMS FoSCP | CMS     | Internal       | -         |                   |       |

| ANNUAL MANAGEMENT ACTIONS |         |   |         |                      |         |                |           |                   |       |
|---------------------------|---------|---|---------|----------------------|---------|----------------|-----------|-------------------|-------|
| Ref no                    | Obj ref | Action  | When    | Delivery by          | Lead by | Est Cost       | Funding   | Status (complete) | Notes |
| 0.19                      | E2      | Sheep taken off grazing meadow                                    | Oct     | Grazier              | EHC     | Agreement      | -         |                   |       |
| 0.20                      | E2      | Cut and lift conservation grassland areas                         | Oct     | JoC                  | EHC     | Contract rates | GM budget |                   |       |
| 0.21                      | E3      | Cut scrub on west bank of Reedbed to maintain views               | Nov     | JoC                  | EHC     | Contract rates | GM budget |                   |       |
| 0.22                      | C2      | Clear vegetation from dog-free-meadow fenceline                   | Nov     | FoSCP                | CMS     | Internal       | -         |                   |       |
| 0.23                      | C1, E3  | Strimming of vegetation around pond by Obrey Way                  | Nov     | JoC                  | EHC     | Contract rates | GM budget |                   |       |
| 0.24                      | C1, E2  | Review level of scrub in grazing meadow, flail if necessary       | Nov     | JoC                  | EHC     | Contract rates | GM budget |                   |       |
| 0.25                      | B2      | Tree safety audit   | Nov     | Contractor           | EHC     | Contract rates | GM budget |                   |       |
| 0.26                      | B1      | Annual risk assessment and hazard review, action accordingly      | Jan     | EHC                  | EHC     | Internal       | -         |                   |       |
| 0.27                      | C1, E4  | Pruning of established hedgerows (revised specification)          | Feb     | EHC                  | EHC     | Contract rates | GM budget |                   |       |
| 0.28                      | E3      | Clear lake inlets & outlets to maintain functionality as required | Feb     | Contractor           | EHC     | Contract rates | GM budget |                   |       |
| 0.29                      | C1      | Lifebelt inspections  | Weekly  | Contractor           | EHC     | Contract rates | GM budget |                   |       |
| 0.30                      | C1      | Empty dog bins  | Weekly  | EHC                  | EHC     | Internal       | -         |                   |       |
| 0.31                      | C1      | Amenity mowing and strimming                                      | Monthly | JoC                  | EHC     | Contract rates | GM budget |                   |       |
| 0.32                      | C1      | Clear ditches, culverts, inlets & outlets                         | Monthly | JoC                  | EHC     | Contract rates | GM budget |                   |       |
| 0.33                      | C1      | Monitor litter picking requirements                               | Monthly | EHC                  | EHC     | Internal       | -         |                   |       |
| 0.34                      | C1      | Cut footpath edges  | Ongoing | JoC                  | EHC     | Contract rates | GM budget |                   |       |
| 0.35                      | E5, F1  | Species and habitat surveys                                       | Ongoing | Local group<br>FoSCP | CMS     | Internal       | -         |                   |       |
| 0.36                      | H1      | Distribute park questionnaire at events and tasks                 | Ongoing | EHC FoSCP            | EHC     | Internal       | -         |                   |       |
| 0.37                      | G2      | Update information in site notice boards                          | Ongoing | EHC FoSCP            | EHC     | Internal       | -         |                   |       |
| 0.38                      | F3, F4  | Promote Hertfordshire Health Walks                                | Ongoing | All                  | CMS     | Internal       | -         |                   |       |

| ANNUAL MANAGEMENT ACTIONS |         |   |         |             |         |          |         |                   |       |
|---------------------------|---------|---|---------|-------------|---------|----------|---------|-------------------|-------|
| Ref no                    | Obj ref | Action  | When    | Delivery by | Lead by | Est Cost | Funding | Status (complete) | Notes |
| 0.39                      | F3, F4  | Promote park to fitness instructors, boot camps etc | Ongoing | EHC         | EHC     | Internal | -       |                   |       |

# SOUTHERN COUNTRY PARK GREENSPACE ACTION PLAN 2018-23

Countrywide Management Service East Herts Council Annual & Regular Actions



Clear reedbed inlet to maintain functionality as required (Feb)

Cut scrub on western bank of reedbed (Nov)

Aftercare of planted trees (April)

Himalayan Balsam pulling from reedbed, outflow and brook (June)

Clear outlet to maintain functionality as required (Feb)

Monitor for ragwort in conservation grass areas (May)

Cut and lift all conservation grass areas (October)

"Cut path edges" to include new footpath section (ongoing)

Aftercare of planted trees (April)

Review development of scrub and flail as necessary (Nov)

Monitor for ragwort (May)

Check & repair fencing (April)

Cut maze (April & Sep)

Clear vegetation from dog-free meadow fenceline (Nov)

Pruning of established hedgerows (new spec) (Feb)

Check & repair fencing (April)

Continue grazing (April to October)

Strimming around pond by Obrey Way (Nov)

- Deliver Grounds Maintenance Contract
- Carry out audit review of pathways
- Review of water bailiff scheme and associated signage
- Review fish survey and action accordingly
- Monitor and manage fish health and stocks
- FoSCP meeting to agree summer work programme
- Review of waymarkers and discs, replace as necessary
- Play area safety audit by RPII Inspector
- Spread extra woodchip on woodland paths as necessary
- Get Park Active event
- FoSCP meeting to agree winter work programme
- Tree safety audit
- Annual risk assessment and hazard review, action accordingly
- Lifebelt inspections
- Empty dog bins
- Amenity mowing and strimming
- Clear ditches, culverts, inlets & outlets
- Monitor litter picking requirements
- Cut footpath edges
- Species and habitat surveys
- Distribute park questionnaire at events and tasks
- Update information in site notice boards
- Promote Hertfordshire Health Walks
- Promote park to fitness instructors, boot camps etc

- ▲ bench
- Parkland Tree
- dog bin
- interpretation
- pedestrian acces
- vehicle gate
- picnic bench
- kissing gate
- ★ litter bin
- \* life ring
- ◇ entrance sign
- ◇ welcome sign

- Car Park
- Young trees
- Steps
- Ditch
- Gabions
- Grassland
- Inlet
- Lake
- Outlet
- Path
- Pond
- Reedbed
- Woodland
- Utilities
- Platforms
- Conservation cut
- Amenity cut
- Marginal veg
- Scrub
- Hedge
- Play area
- Dog agility
- Fenced areas

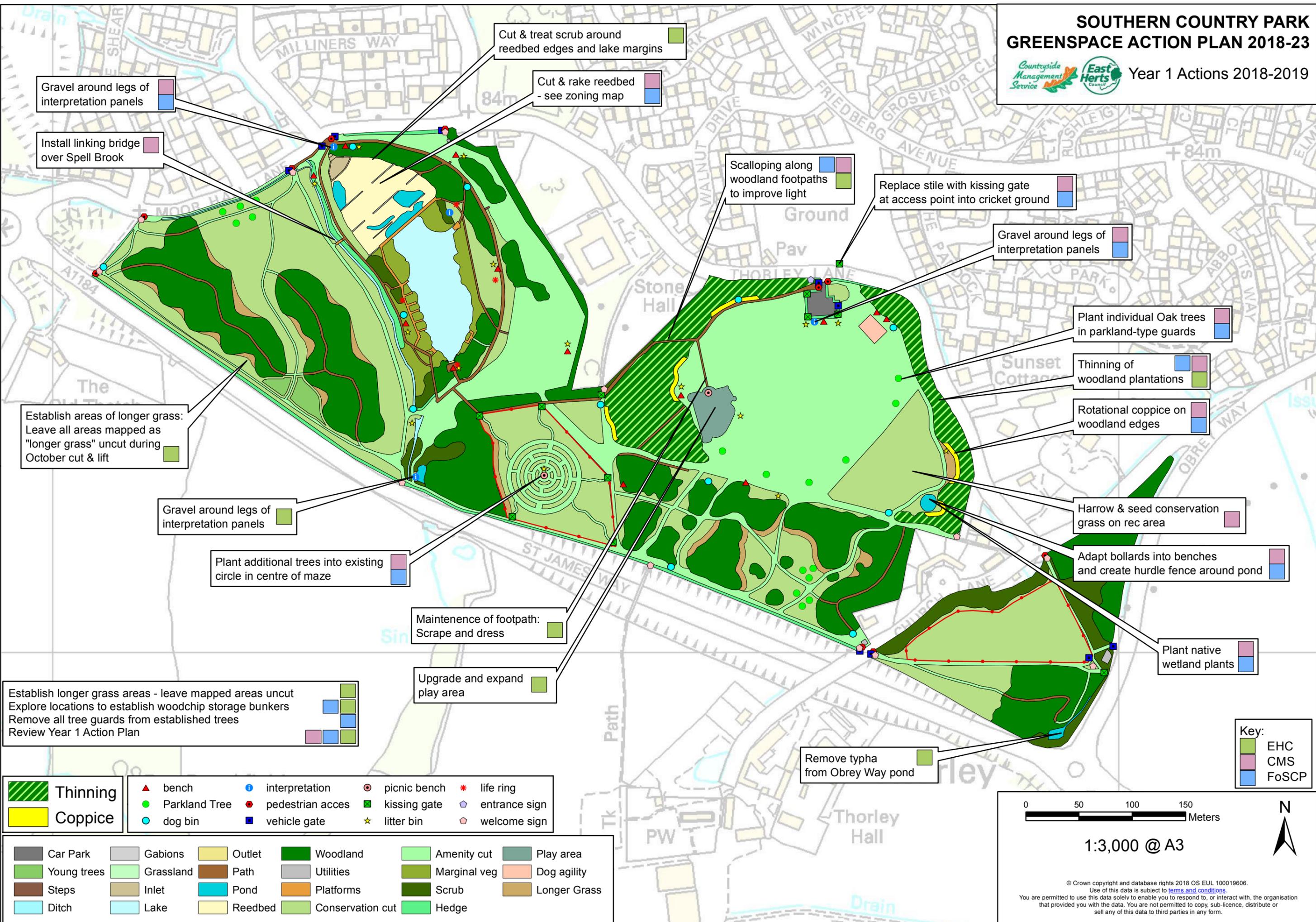
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| YEAR 1 ACTION PLAN 2018-19 |         |  |         |                  |         |                |           |                   |       |
|----------------------------|---------|--|---------|------------------|---------|----------------|-----------|-------------------|-------|
| Ref no                     | Obj ref | Action   | When    | Delivery by      | Lead by | Est Cost       | Funding   | Status (complete) | Notes |
| 1.1                        | E2      | Establish areas of longer grass – leave mapped areas uncut | -       | JoC              | EHC     | -              | -         |                   |       |
| 1.2                        | C2      | Gravel round legs of interpretation panels                 | April   | JoC              | EHC     | Contract rates | GM budget |                   |       |
| 1.3                        | A1      | Realign section of footpath attached to play area          | June    | JoC              | EHC     | Contract rates | GM budget |                   |       |
| 1.4                        | A6      | Upgrade and expand play area                               | Aug     | Contractor       | EHC     |                |           |                   |       |
| 1.5                        | A3      | Replace stile with kissing gate at cricket ground link     | Aug     | FoSCP            | CMS     | £300           | External  |                   |       |
| 1.6                        | E2      | Harrow and seed conservation grass area                    | Sep     | Contractor       | CMS     | £1000          | External  |                   |       |
| 1.7                        | E3      | Remove <i>typha</i> from Obrey Way pond                    | Nov     | JoC              | EHC     | Contract rates | GM budget |                   |       |
| 1.8                        | A1      | Install linking bridge over Spell Brook                    | Nov     | Contractor       | CMS     | £6000          | External  |                   |       |
| 1.9                        | E2      | Plant additional trees into circle in centre of maze       | Dec     | FoSCP            | CMS     | TBC            | External  |                   |       |
| 1.10                       | E2      | Plant individual oaks in parkland guards                   | Dec     | FoSCP            | CMS     | TBC            | External  |                   |       |
| 1.11                       | E1      | Thinning of woodland plantations (year 1 areas)            | Oct-Feb | JoC FoSCP        | CMS     | Contract rates | GM budget |                   |       |
| 1.12                       | E1      | Rotational coppice on woodland edges (year 1 areas)        | Oct-Feb | FoSCP            | CMS     | Internal       | -         |                   |       |
| 1.13                       | E1      | Scaloping along woodland footpaths (year 1 areas)          | Oct-Feb | FoSCP            | CMS     | Internal       | -         |                   |       |
| 1.14                       | D1      | Explore locations to establish woodchip storage bunkers    | Oct-Feb | FoSCP EHC        | EHC     | Internal       | -         |                   |       |
| 1.15                       | C2      | Remove all tree guards from established trees              | Jan     | FoSCP            | CMS     | Internal       | -         |                   |       |
| 1.16                       | E3      | Cut and rake Reedbed (see zoning map)                      | Jan     | FoSCP            | CMS     | Internal       | -         |                   |       |
| 1.17                       | E3      | Cut & treat willow in reedbed and around lake margins      | Feb     | Contractor       | EHC     | Contract rates | GM budget |                   |       |
| 1.18                       | A2      | Adapt bollards and create hurdle fence at seasonal pond    | May     | FoSCP            | CMS     | £150           | External  |                   |       |
| 1.19                       | E3      | Plant native wetland plants at seasonal pond               | March   | FoCP             | CMS     | £50            | External  |                   |       |
| 1.20                       | H1, H2  | Review year 1 Action Plan                                  | March   | CMS EHC<br>FoSCP | CMS     | Internal       | -         |                   |       |

# SOUTHERN COUNTRY PARK GREENSPACE ACTION PLAN 2018-23

Year 1 Actions 2018-2019



Gravel around legs of interpretation panels

Install linking bridge over Spell Brook

Establish areas of longer grass: Leave all areas mapped as "longer grass" uncut during October cut & lift

Gravel around legs of interpretation panels

Plant additional trees into existing circle in centre of maze

Maintenance of footpath: Scrape and dress

Upgrade and expand play area

Cut & treat scrub around reedbed edges and lake margins

Cut & rake reedbed - see zoning map

Scalloping along woodland footpaths to improve light

Replace stile with kissing gate at access point into cricket ground

Gravel around legs of interpretation panels

Plant individual Oak trees in parkland-type guards

Thinning of woodland plantations

Rotational coppice on woodland edges

Harrow & seed conservation grass on rec area

Adapt bollards into benches and create hurdle fence around pond

Plant native wetland plants

Remove typha from Obrey Way pond

Establish longer grass areas - leave mapped areas uncut  
Explore locations to establish woodchip storage bunkers  
Remove all tree guards from established trees  
Review Year 1 Action Plan

- |          |               |                  |              |               |
|----------|---------------|------------------|--------------|---------------|
| Thinning | bench         | interpretation   | picnic bench | life ring     |
| Coppice  | Parkland Tree | pedestrian acces | kissing gate | entrance sign |
|          | dog bin       | vehicle gate     | litter bin   | welcome sign  |

- |             |           |         |                  |              |              |
|-------------|-----------|---------|------------------|--------------|--------------|
| Car Park    | Gabions   | Outlet  | Woodland         | Amenity cut  | Play area    |
| Young trees | Grassland | Path    | Utilities        | Marginal veg | Dog agility  |
| Steps       | Inlet     | Pond    | Platforms        | Scrub        | Longer Grass |
| Ditch       | Lake      | Reedbed | Conservation cut | Hedge        |              |

Key:  
 EHC  
 CMS  
 FoSCP

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| YEAR 2 ACTION PLAN 2019-20 |         |   |           |                  |         |                |           |                   |       |
|----------------------------|---------|---|-----------|------------------|---------|----------------|-----------|-------------------|-------|
| Ref no                     | Obj ref | Action  | When      | Delivery by      | Lead by | Est Cost       | Funding   | Status (complete) | Notes |
| 2.1                        | A4      | Review of car park surfacing & layout                         | April     | EHC CMS          | CMS     | Internal       | -         |                   |       |
| 2.2                        | A5      | Install two woodland themed interpretation panels             | April     | CMS EHC          | CMS     | £4000          | External  |                   |       |
| 2.3                        | A5      | Install a reedbed themed interpretation panel                 | April     | CMS EHC          | CMS     | £2500          | External  |                   |       |
| 2.4                        | E2      | Establish areas of longer grass – cut & lift identified areas | April     | JoC              | EHC     | Contract rates | GM budget |                   |       |
| 2.5                        | E2      | Regular mowing of newly seeded conservation grass area        | April-Sep | JoC              | EHC     | Contract rates | GM budget |                   |       |
| 2.6                        | E1      | Thinning of woodland plantations (year 2 areas)               | Oct-Feb   | JoC FoSCP        | CMS     | Contract rates | GM budget |                   |       |
| 2.7                        | E1      | Rotational coppice on woodland edges (year 2 areas)           | Oct-Feb   | FoSCP            | CMS     | Internal       | -         |                   |       |
| 2.8                        | E1      | Scalloping along woodland footpath routes (year 2 areas)      | Oct-Feb   | FoSCP            | CMS     | Internal       | -         |                   |       |
| 2.9                        | E2      | Cut hemlock area to control                                   | Apr/Aug   | JoC              | EHC     | Contract rates | GM budget |                   |       |
| 2.10                       | E3      | Cut and rake Reedbed (see zoning map)                         | Jan       | FoSCP            | CMS     | Internal       | -         |                   |       |
| 2.11                       | E3      | Cut & treat willows in reedbed and around lake margins        | Feb       | Contractor       | EHC     | Contract rates | GM budget |                   |       |
| 2.12                       | H1, H2  | Review year 2 Action Plan                                     | March     | CMS EHC<br>FoSCP | CMS     | Internal       | -         |                   |       |

# SOUTHERN COUNTRY PARK GREENSPACE ACTION PLAN 2018-23

Year 2 Actions 2019-2020




Cut & treat scrub around reedbed edges and lake margins

Cut & rake reedbed - see zoning map

Install reedbed-themed interpretation panel

Review of car park surfacing and layout

Install woodland-themed interpretation panel

Regular mowing of newly seeded area between April and September

Install woodland-themed interpretation panel

Establish areas of longer grass: Cut & lift all areas mapped as "longer grass" during April

Cut hemlock area to control

Thinning of woodland plantations

Rotational coppice on woodland edges

Scaloping along footpath routes to improve light

Review Year 2 Action Plan

- |          |               |                  |              |               |
|----------|---------------|------------------|--------------|---------------|
| Thinning | bench         | interpretation   | picnic bench | life ring     |
| Coppice  | Parkland Tree | pedestrian acces | kissing gate | entrance sign |
|          | dog bin       | vehicle gate     | litter bin   | welcome sign  |

- |                  |           |        |           |                  |              |
|------------------|-----------|--------|-----------|------------------|--------------|
| Car Park         | Ditch     | Lake   | Reedbed   | Conservation cut | Hedge        |
| Coppice regrowth | Gabions   | Outlet | Woodland  | Amenity cut      | Play area    |
| Young trees      | Grassland | Path   | Utilities | Marginal veg     | Dog agility  |
| Steps            | Inlet     | Pond   | Platforms | Scrub            | Longer Grass |

Key:  
 EHC  
 CMS  
 FoSCP

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| YEARS 3-5 ACTION PLAN 2020-23 |         |   |                      |                  |         |                |           |                   |       |
|-------------------------------|---------|---|----------------------|------------------|---------|----------------|-----------|-------------------|-------|
| Ref no                        | Obj ref | Action  | When                 | Delivery by      | Lead by | Est Cost       | Funding   | Status (complete) | Notes |
| 3.1                           | E2      | Establish areas of longer grass – leave mapped areas uncut        | Year 3               | JoC              | EHC     | -              | -         |                   |       |
| 3.2                           | E2      | Return seeded meadow to annual cut & lift                         | Year 3<br>October    | JoC              | EHC     | Contract rates | GM budget |                   |       |
| 3.3                           | E1      | Thinning of woodland plantations (per year)                       | Years 3-5<br>Oct-Feb | JoC FoSCP        | CMS     | Contract rates | GM budget |                   |       |
| 3.4                           | E1      | Rotational coppice on woodland edge scallops (per year)           | Years 3-5<br>Oct-Feb | FoSCP            | CMS     | Internal       | -         |                   |       |
| 3.5                           | E1      | Scaloping along woodland footpath routes (per year)               | Years 3-5<br>Oct-Feb | FoSCP            | CMS     | Internal       | -         |                   |       |
| 3.6                           | E2      | Assess hemlock population and consider further mechanical control | Years 3-5<br>Apr     | CMS EHC<br>FoSCP | EHC     | Internal       | -         |                   |       |
| 3.7                           | E3      | Cut and Rake Reedbed (see zoning map)                             | Years 3-5<br>Jan     | FoSCP            | CMS     | Internal       | -         |                   |       |
| 3.8                           | E3      | Cut & treat willows in reedbed and around lake margins            | Years 3-5<br>Jan     | Contractor       | EHC     | Contract rates | GM budget |                   |       |
| 3.9                           | H1, H2  | Review year 3 Action Plan   | Year 3<br>March      | CMS EHC<br>FoSCP | CMS     | Internal       | -         |                   |       |
| 3.10                          | E2      | Establish areas of longer grass – cut & lift identified areas     | Year 4<br>April      | JoC              | EHC     | Contract rates | GM budget |                   |       |
| 3.11                          | H1, H2  | Review year 4 Action Plan   | Year 4<br>March      | CMS EHC<br>FoSCP | CMS     | Internal       | -         |                   |       |
| 3.12                          | E2      | Establish areas of longer grass – leave mapped areas uncut        | Year 5               | JoC              | EHC     | -              | -         |                   |       |
| 3.13                          | E4      | Remove spiral guards from establishing hedgerows                  | Year 5<br>April      | FoSCP            | CMS     | Internal       | -         |                   |       |
| 3.14                          | H1, H2  | Draft new 5-Year Greenspace Action Plan for 2023-28               | Year 5<br>Apr-Sep    | CMS EHC<br>FoSCP | CMS     | Internal       | -         |                   |       |
| 3.15                          | H1, H2  | Review year 5 Action Plan   | Year 5<br>March      | CMS EHC<br>FoSCP | CMS     | Internal       | -         |                   |       |

# SOUTHERN COUNTRY PARK GREENSPACE ACTION PLAN 2018-23



Years 3-5 Actions  
2020-2023

Clear vegetation from lake inlet  
Years 3 and 5

**Thinning & Coppicing YEAR 5 (2022/23)**

Cut and rake reedbed  
Years 3 - 5  
See zoning map

Cut and treat scrub around  
reedbed edges and lake margins  
Years 3 - 5 on rotation

**Thinning & Coppicing YEAR 3 (2020/21)**

Return seeded meadow to  
annual cut & lift  
Year 3 onwards

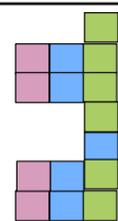
Assess hemlock population,  
consider further control

Areas mapped as Longer Grass:  
Year 3: Leave uncut  
Year 4: Cut & lift in April  
Year 5: Leave uncut

**Thinning & Coppicing YEAR 4 (2021/22)**

Key:  
EHC  
CMS  
FoSCP

- Establish areas of longer grass - leave mapped areas uncut (Y3)
- Review Year 3 Action Plan
- Review Year 4 Action Plan
- Establish areas of longer grass - leave mapped areas uncut (Y5)
- Remove spiral guards from establishing hedgerows
- Draft new five year GAP for 2023-28
- Review Year 5 Action Plan



Thinning  
 Coppice

|               |                  |              |               |
|---------------|------------------|--------------|---------------|
| bench         | interpretation   | picnic bench | life ring     |
| Parkland Tree | pedestrian acces | kissing gate | entrance sign |
| dog bin       | vehicle gate     | litter bin   | welcome sign  |

|                  |           |        |           |                  |              |
|------------------|-----------|--------|-----------|------------------|--------------|
| Car Park         | Ditch     | Lake   | Reedbed   | Conservation cut | Hedge        |
| Coppice regrowth | Gabions   | Outlet | Woodland  | Amenity cut      | Play area    |
| Young trees      | Grassland | Path   | Utilities | Marginal veg     | Dog agility  |
| Steps            | Inlet     | Pond   | Platforms | Scrub            | Longer Grass |

0 50 100 150 Meters

1:3,000 @ A3

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## **6. Appendices**

### 6.1 Work Specifications

#### **Install Bridge across Spell Brook**

- Cut sufficient gap in hedge – suitable for volunteers prior to contract work; contractor to remove arisings. Cut stems as close to ground level as possible.
- Contractor to install bridge
  - Dig out stumps as necessary to enable installation of foundations
  - Supply and install concrete and steel reinforcement and lay foundations at either end of the structure
  - Install galvanised steel sub-structure, 2m wide, to span the ditch.
  - Construct bridge with pressure treated softwood (planed and eased edges), with 12mm gaps.
  - Fix toe rails to each side 47mm x 47mm pressure treated softwood (planed and eased edges)
  - Securely affix 25mm x 25mm 16 gauge galvanised weld mesh as non-slip surface
  - Install hand rails bolted on to both sides of bridge, comprising uprights 125mm x 75mm x 1200mm and handrails 100 x 50 x 3600mm, all pressure treated softwood (planed and eased edge)
- The watercourse is classed as a Main River – appropriate consent will need to be obtained from the Environment Agency

#### **Access into Cricket Ground**

- Replace stile with small pedestrian kissing gate, galvanised steel.
- Repair/reinforce ramp and handrails as necessary
- Cut back encroaching vegetation, use pole saw to reduce overhanging branches.
- Ensure good sightlines up and down the road

#### **Interpretation**

- Two A2 panels on plinths, situated in the core woodland areas on main path routes
  - Twin leg lectern, powdered stainless steel
  - GRP panel insert, to include illustrated watercolour composition, depicting habitat management activities taking place, the flora & fauna this will benefit, people walking, volunteers coppicing, contractors with chainsaws, timber being chipped. Text where explanation or justification is required.
- One A2 panel situated adjacent to the reedbed/boardwalk.
  - Twin leg lectern, powdered stainless steel
  - GRP panel insert, to include illustrated watercolour composition, depicting reedbed wildlife. Text to provide explanation.
- Following established EHC themes and layouts used on the other panels in the park
- Installed using post-crete to fix in place, suitable for volunteers.

#### **Aftercare of planted trees**

- 1m diameter weed free area around each tree should be maintained until they become properly established – usually five years from planting.

- Annual application of well-rotted woodchip mulch during spring
- With follow up weeding by hand as necessary through the summer
- Supplementary watering may be necessary in periods of dry weather
- Monitoring on an annual basis to identify failures and subsequent replanting

### **Himalayan Balsam Management**

- An invasive non-native species which rapidly colonises river banks, suppress the growth of native plants, leaving banks bare of vegetation and liable to erosion.
- In a setting such as Southern Country Park, the most appropriate method for management is to manually pull the shallow-rooted plants and to remove from site; this activity can be carried out as a practical volunteer task.
- Search entire area prior to task to identify affected areas
- Equipment needed:
  - waders and wellies
  - rubber gloves
  - overalls to keep splashes off clothing
  - sun hats and other protection as necessary
  - water, soap and towels to clean up before eating, drinking or finishing the task
  - heavy duty bags to collect plants as you go
  - heavy duty sheets for dragging larger quantities away from banks where this is possible. Dung forks can be useful for transferring it onto the heaps.
- Start work closest to the source of the watercourse and work downstream.
- Carry out early July when plants are coming into flower. Those not in flower are more difficult to spot but the red on the stems helps distinguish them from other plants.
- Very young plants can be over looked and the exercise should be repeated about two weeks later when they will be more visible.
- Grasp the plant near the base and below any nodes with both hands - it usually comes up easily and complete. Avoid pulling above a node as the stem can break there. For larger plants, loosen the roots with a fork.
- Plants have nodes which will root if in contact with the ground. Consequently, trampled plants and others where the stem touches the ground may have several sets of roots along the stem which may need pulling individually.
- If small roots are broken off below ground, regrowth is unlikely. However, a large piece may regrow.
- Moving pulled plants far away from their source may require a Waste Transfer License. Heap them up in a pile, on top of a bed of branches to prevent contact with the ground, ensuring the flower heads are buried within the heap. Keep this heap well away from the wetland area to prevent any seeds present from germinating (which is possible if the plant is in seed or about to go to seed). As it looks unsightly, consider making the heap where it is hidden among bushes. The fleshy nature and high water content means that the plant rots down pretty quickly.
- Pulling for 2 or 3 years should clear a section as long as re-infestation does not occur. In practice, it may be difficult to reach all sections of the river

## Tree procurement

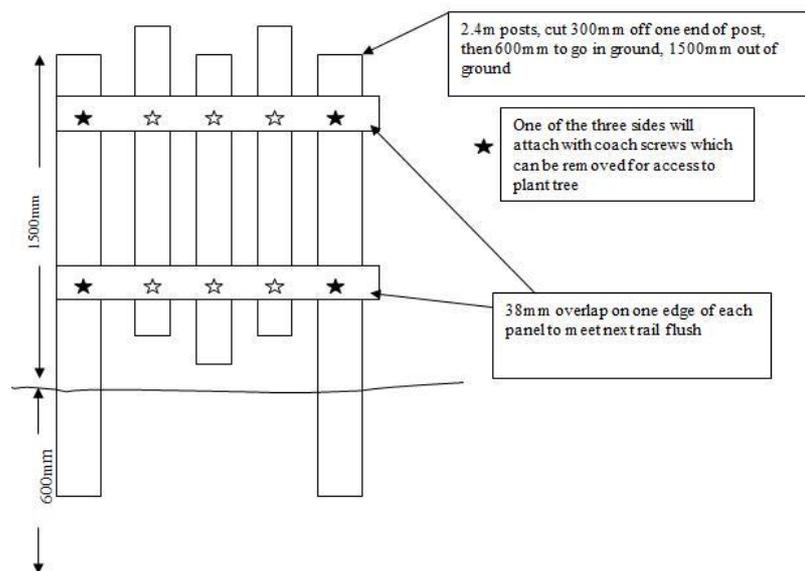
- 'Tree stock for native woodland planting must be UK grown from seed, of British provenance, and must conform to BS 3936 (where applicable)
- As far as possible, trees should be from the local UK Provenance Zone 402 and from an Elevation Zone below 300m (Zones 405 & 406 are acceptable alternatives)
- As part of the procurement process, nurseries must be required to:
  - Provide a current FC 'Certificate of Local Provenance';
  - Provide documented confirmation of seed source;
  - Provide assurance of UK propagation through accreditation under the Woodland Trust's 'UK Sourced and Grown Scheme' (UKSG) or equivalent demonstrable evidence;
  - Demonstrate, as far as possible, that trees are pest and disease free.
  - Permit inspection of growing area, and tree stock, prior to purchase;
- Following procurement, an audit trail of trees must be maintained by the purchaser, allowing planted trees to be traced back to the nursery source and tree batch'.

## Woodland management activity

- Thinning works:
  - Systematic - Remove majority of poorly formed/supressed, breaking up uniformed grid structure
  - Sequence (years 1 – 5) has been based on intensity/timing of previous interventions and consideration of growth rates within stands
  - FoSCP to do initial hit, removing all (poorly formed and supressed stems) with hand tools: cut into short lengths and stack in habitat piles
  - CMS then identify and mark any larger stems for removal by chainsaw > suitable for JoC to implement (external contractor if not)
  - Timber products:
    - Extract any decent logs, if possible market to local merchants
    - Smaller material to be chipped and used as required to top-up woodland or to chip pile to rot down to use as mulch.
    - Brash – stack as habitat piles under woodland canopy
  - Focus on encouraging good form and growth in canopy trees – this will still encourage development of understorey – but at a steadier pace.
  - Slightly heavier thinning adjacent to footpath routes, to let more light in reduce "corridor effect"
- Coppice management of woodland edge sections
  - Brash arisings used to create small piles in woodland interior – increase deadwood volumes, soil conditions, ground cover. Chip if too much
  - 8-10 year rotation, but monitor, adjust to suit growth rates and material requirements
  - Coppice product – stakes & binders for future hedge laying, dead hedges, hurdles as appropriate.
  - Monitor for browsing; consider hurdle fences, rabbit netting, deer baskets
- Remove mulch mats and tree guards in areas being worked. EHC/JoC to dispose of.
- Where possible, deadwood should be allowed to remain as it provides valuable habitat. Deadwood can be removed from trees and overhanging paths but ideally left on the woodland floor.

## Tree Planting

- General:
  - Dig a hole larger than the tree's root ball, lifting out turf and putting to one side
  - Loosen soil in sides and bottom of hole to improve rooting
  - Hold tree vertically in centre of hole, root collar at ground level. Replace good topsoil and additional composted material as appropriate, and shake tree gently to disperse soil around roots, preventing air pockets
  - Firm the soil once roots are uncovered, backfill remaining soil and replace square of turf by first cutting in two, then placing upside down around tree.
  - Apply layer of mulch (well composted wood chip or similar), 10cm deep, radius 50cm, ensuring mulch is not piled up around stem of tree
- Trees for maze:
  - Species: cultivar of small leaved lime (*Tilia cordata*)
  - The original planting used the cultivar "Greenspire" – however this cultivar is not suited to pleaching – needed to create the desired "living structure" effect
  - The cultivar "Winter Orange" is very similar in appearance but will take to pleaching much better – this is recommended for this stage of planting.
  - 6 individuals needed to fill gaps – plant as standards or half standards
  - Reposition bin to sit just inside the circle
  - Pit planting, apply mulch, 1m diameter, 10cm depth.
  - Staked using a 1.8m x 50mm stake with a suitable tree tie (approx. 37cm)
  - Protect from browsing by rabbits using a mesh guard.
- Parkland tree guards (for trees planted in recreation area) – suggested design
  - 38mm x 88mm 3.6m length treated rails
  - Horizontals for the guards are 900mm – 8 per guard
  - Verticals are 1200mm – 12 per guard
  - Have to fit this out of the 3.6m lengths
  - 100mm x 100mm sawn treated 2.1m posts
  - Suggested fixings for panels
    - Turbofast 8mm x 80mm stainless steel, 36 per guard.



## Conservation Grassland

- Two year rotation on strips of grass at woodland edges:
  - All areas mapped as 'longer grass' on action plan maps.
  - Leave uncut during October cut and lift.
  - Cut and lift during the following April.
- Wildflower seeding of conservation grassland area at bottom of rec area:
  - Best carried out in the autumn
  - Approx. area to be seeded:
  - All grass to be cut short and arisings removed
  - Prepare suitable seed bed by scarification to create approx. 60-70% bare soil
  - Sow pure wildflower seed mixture at approx. 1g/m<sup>2</sup>
    - Seed to be a native perennial wildflower mix (for example Emorsgate Seeds EM2F <https://wildseed.co.uk/mixtures/view/24>)
    - Damp sand can be mixed with the seed to act as a carrier
  - Roll the ground with a heavy roller immediately after sowing to ensure seed is fully in contact with soil.
  - Follow up management:
    - Following year – mow regularly as per amenity grass
    - Second year – return to usual cut & lift management

## Reedbed and surrounds

- Zoning, cut & rake.
  - Cut vegetation each year on rotation – as per map on following page.
  - Material to be raked up and stacked outside the fenced area as habitat piles
  - Work areas to be marked out prior to tasks, including location of habitat piles
- Fishing lake margins
  - To prevent unwanted access through margins for fishing (encouraging people to use designated platforms) - each operation should avoid cutting all the way through to the lake, leaving an outer edge uncut, then cut that edge later along with another section.
- Contractors implementing this need to have appropriate licences for chemical treatment by water

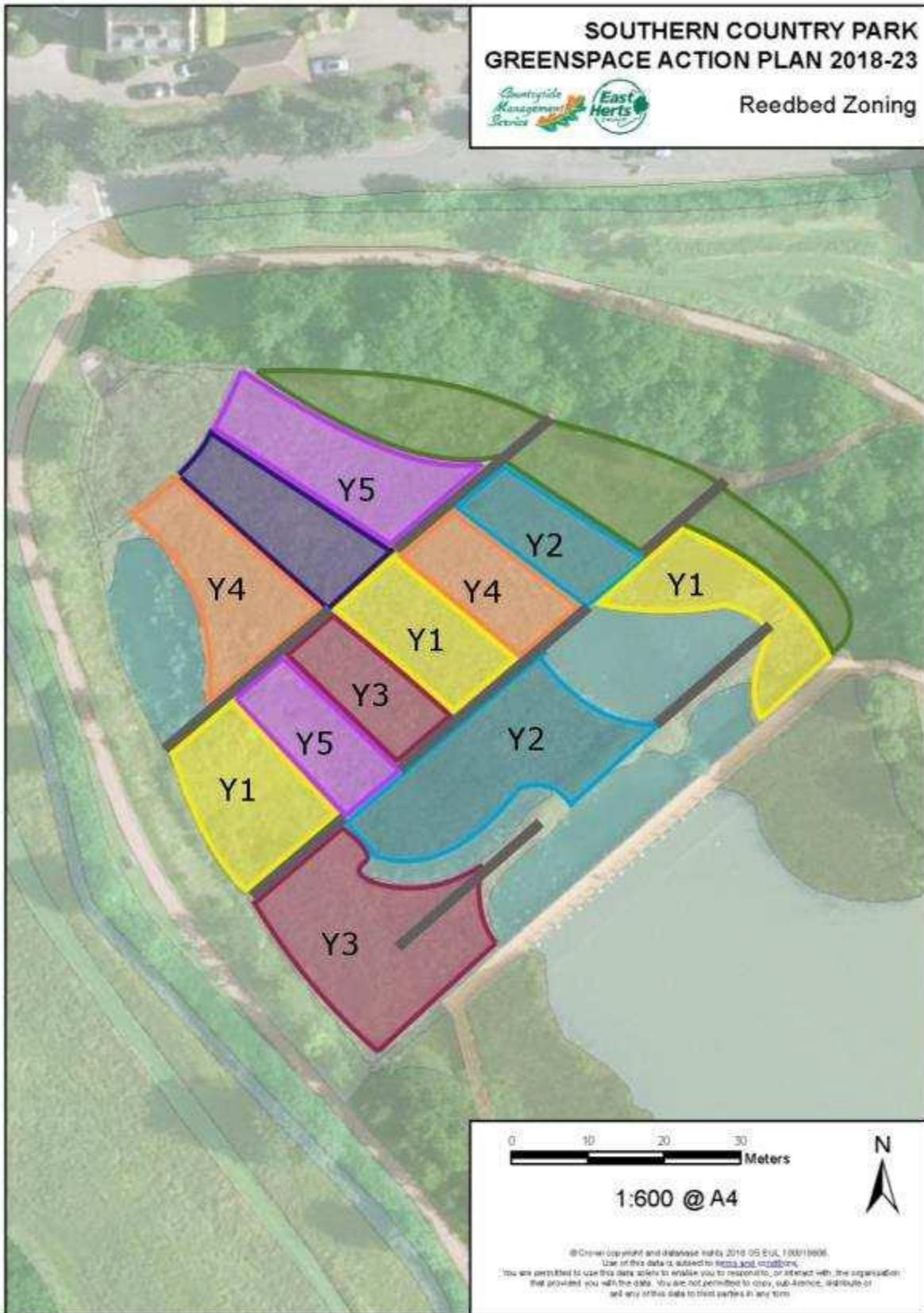
## Channel clearance

- The removal of vegetation and silt from the confluence of the lake outlet and brook
- Regular removal from outlet area – deposit onto top of bank to allow invertebrates to return to the water and for it to dry out.
- Move dried material to gabion area or elsewhere (should be minimal)
- No planting in this area to maintain capacity of outflow / not impede flow
- Vegetation will naturally colonise
- Need to register this work with EA, using exemption form U11 (spreading waste on non-agricultural land to confer benefit)

## Hedgerow spec (NE)

- Cut hedgerows on a 2 year rotation, during Jan & Feb when ground conditions are suitable to avoid causing ground damage
- Leave at least one half of hedges on site untrimmed each year

- Slightly tapered, at least 2m tall and up to 3m tall along St James Way.



## 6.2 Contact Details

| Address   | Contact/Position  | Telephone/Email   |
|---|---|---|
| <b>East Herts Council</b><br>Wallfields, Pegs Lane<br>Hertford, Herts, SG13<br>8EQ  | For general enquiries<br>– including Out of Hours Service | East Herts Council Environmental Services<br>Tel: 01279 655261<br>Email: <a href="mailto:operations.admin@eastherts.gov.uk">operations.admin@eastherts.gov.uk</a><br>Website: <a href="http://www.eastherts.gov.uk">www.eastherts.gov.uk</a>  |
| <b>Countryside Management Service (CMS)</b><br>Environment and Infrastructure Department,<br>County Hall, Hertford,<br>Hertfordshire, SG13<br>8DN | For general enquiries                                     | Tel: 01992 588433<br>Email: <a href="mailto:northeast.cms@hertfordshire.gov.uk">northeast.cms@hertfordshire.gov.uk</a><br>Website: <a href="http://www.hertfordshire.gov.uk/cms">www.hertfordshire.gov.uk/cms</a>   |
| <b>Hertfordshire County Council</b><br>County Hall, Pegs Lane<br>Hertford, Herts, SG13<br>8DN   | For general enquiries                                     | Tel: 0300 1234040<br>Website: <a href="http://www.hertfordshire.gov.uk">www.hertfordshire.gov.uk</a><br>Email: Via online form  |
| <b>Bishop's Stortford Town Council</b>  | Town Clerk  | Tel: 01279 715000<br>Email: <a href="mailto:enquiries@bishopsstortfordtc.gov.uk">enquiries@bishopsstortfordtc.gov.uk</a><br>Web site: <a href="http://www.bishopsstortfordtc.gov.uk">www.bishopsstortfordtc.gov.uk</a>  |
| <b>Environment Agency</b><br>15 Bessemer Road,<br>Welwyn Garden City,<br>Herts, AL7 1HU   | For general enquiries                                     | Tel: 03708 506 506 - general enquiry line<br>Tel: 0800 80 70 60 to report an incident<br>Email:<br><a href="mailto:enquiries@environment-agency.gov.uk">enquiries@environment-agency.gov.uk</a><br>Website:<br><a href="http://www.environment-agency.gov.uk">www.environment-agency.gov.uk</a> |
| <b>Police Neighbourhood Team</b><br>Bishop's Stortford<br>Police Station, Basbow Lane,<br>Bishop's Stortford, CM23 2NA                            | Neighbourhood Team  | Tel: 101 - Non-emergency number for help, advice and information.<br><b>Always dial 999 in an emergency</b><br>Website: <a href="http://www.herts.police.uk">www.herts.police.uk</a>  |
| <b>Hertfordshire Fire and Rescue</b><br>Bishop's Stortford Fire Station,<br>Patmore Close,<br>Bishop's Stortford,<br>CM23 2PY                     | Fire Station Manager                                      | Tel: 01992 507562 (District Office)<br><b>Always dial 999 in an emergency</b><br>Website:<br><a href="https://www.hertfordshire.gov.uk/services/fire-and-rescue/">https://www.hertfordshire.gov.uk/services/fire-and-rescue/</a>  |

### 6.3 Links to other documents

#### **Parks and Open Spaces Strategy 2013 - 2018**

[https://www.eastherts.gov.uk/media/24315/Parks--Open-Spaces-Strategy-2013---2018/PDF/Parks and Open Spaces Strategy 2013 - For web.pdf](https://www.eastherts.gov.uk/media/24315/Parks--Open-Spaces-Strategy-2013---2018/PDF/Parks_and_Open_Spaces_Strategy_2013_-_For_web.pdf)

#### **Grazing Animals in our Parks**

[https://www.eastherts.gov.uk/media/17447/Grazing-Animals-in-our-Parks/PDF/EHC\\_Grazing\\_Animals\\_in\\_our\\_Parks\\_-\\_July\\_2010.pdf](https://www.eastherts.gov.uk/media/17447/Grazing-Animals-in-our-Parks/PDF/EHC_Grazing_Animals_in_our_Parks_-_July_2010.pdf)

#### **Fishing Rules and Regulations in Southern Country Park**

[https://www.eastherts.gov.uk/media/30596/Fishing-Rules-and-Regulations/PDF/Fishing rules and regulations - Southern Country Park.pdf](https://www.eastherts.gov.uk/media/30596/Fishing-Rules-and-Regulations/PDF/Fishing_rules_and_regulations_-_Southern_Country_Park.pdf)

#### **East Herts Local Plan (April 2007)**

<https://www.eastherts.gov.uk/localplan>

#### **East Herts District Plan to 2033**

<https://www.eastherts.gov.uk/districtplan>

#### **East Herts Green Infrastructure Plan 2011**

[https://www.eastherts.gov.uk/media/31098/East-Herts-Green-Infrastructure-Plan/PDF/ENV.001\\_East\\_Herts\\_Green\\_Infrastructure\\_Plan.pdf](https://www.eastherts.gov.uk/media/31098/East-Herts-Green-Infrastructure-Plan/PDF/ENV.001_East_Herts_Green_Infrastructure_Plan.pdf)

#### **Playing Pitch Strategy 2010**

[https://www.eastherts.gov.uk/media/32213/Part-3-Playing-Pitch-Strategy/PDF/East\\_Herts\\_Part\\_3-Playing\\_Pitch\\_Strategy.pdf](https://www.eastherts.gov.uk/media/32213/Part-3-Playing-Pitch-Strategy/PDF/East_Herts_Part_3-Playing_Pitch_Strategy.pdf)

#### **“Everyone Matters” – A Sustainable Community Strategy for East Herts 2009-2024**

<https://www.eastherts.gov.uk/article/35657/Sustainable-Community-Strategy-2009-2024>

#### **East Herts Health and Wellbeing Strategy 2013-18**

<https://www.eastherts.gov.uk/article/35655/Health--Wellbeing-Strategy-2013-18>

## 6.4 Fish population survey – Southern Country Park 2015



Frensham Vale Stables, Gardeners Hill Rd, Lower Bourne,  
Farnham, Surrey, GU10 3JB  
Telephone (01252) 856385  
*Website address [www.aquamaintain.co.uk](http://www.aquamaintain.co.uk)*  
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**Fish population Survey – Southern Country Park 2015.**



**Authors:**

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**Sampling Undertaken by:**

Aquamaintain Ltd

|                               |    |
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Aquamaintain Ltd supplies this document for the purpose of suggesting improvements to the fishery at Southern Country Park, Bishops Stortford, This document and information contained within is not to be used for any purpose other than that stated above or shared with persons or organisations not involved in the property or its management.

## 1.0 Aims and objectives

The aim of this report is to assess the current status of the fish populations in Southern Country Park, with particular emphasis placed on species of angling and conservation interest.

In this investigation, the specific objectives were;

1. To provide data on the species composition and abundance.
2. To provide data to analyse trends over time.
3. To provide an insight into the nature of fish populations in the fishery to allow for the effective future management.

## 2.0 Method

A fish population survey was undertaken on 4<sup>th</sup> December 2015 at Southern Country Park, Bishop Stortford.

This survey was undertaken by seine netting using a 150m x 5m net. This sized net encompassed the full width of the lake, allowing the entire open water area to be covered in one sweep down its length. Electrofishing was disregarded as an effective survey method due to the water depths and inaccessible areas.



**Plate 1.0** First netting sweep encompassing the main body of the pond

The sampling was undertaken using a depletion method. This is whereby sample nets are taken until numbers of fish in each catch drop significantly enough to assume that only a small population is remaining and unobtainable due to natural barriers in the water, such as the reed encroached margins in which fish can find refuge from the net.

## Fish Population Survey, Southern Country Park, December 2015

Splashing the water and creating commotion disturbed areas of natural cover such as the reed-laden margins, so as to scare retreating fish in to open water as the net passed.

Several obstacles in the form of submerged gabion baskets were discovered throughout the lake. These caused the net to become snagged at various points, which undoubtedly resulted in the loss of fish when the nets were lifted to overcome them.

Some damage to the nets also occurred as a result of the obstacles in the lake. This will have unfortunately added to the number of fish lost during the first sweep.

The net was repaired and the obstacles were avoided in the subsequent sweeps to reduce damage to the net and further fish losses.

In total 3 sweeps of the net were undertaken providing sufficient data to formulate a good understanding of the site's population.

Captured fish, in between sweeps, were held securely in 1.5 x 1.5m floating cages to be logged at the end of the survey and to avoid recapture.

### 3.0 Site selection

Due to the nature of the site and the heavily encroached reed margins, two sites were chosen in which to set and retrieve the net, and all three sweeps fished from these areas.

### 4.0 Site map



**Figure 1.0** Approximate locations of netting sweeps

← Landing sites for netting sweeps

## Fish Population Survey, Southern Country Park, December 2015

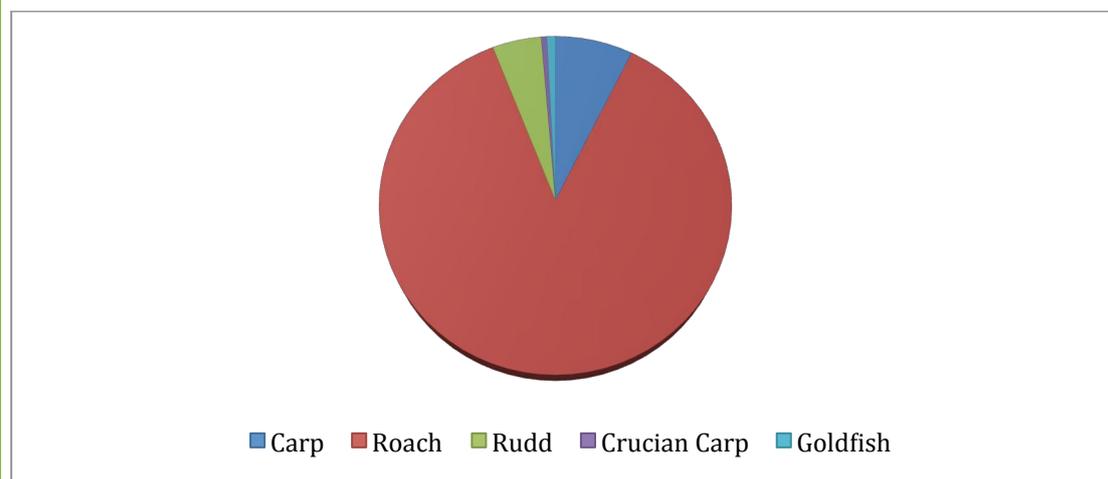
### 5.0 Results

- 5 major species were captured during the survey, not including hybridised variants
- In total **127** carp of a size range between **6oz** to **14lb** were recorded from the three sweeps.
- As a result of the three sweeps, approximately **250lb** of mixed silver fish were caught (mostly consisting of roach in the **2-4"** size range with few exceeding **7"**).
- No predatory fish species were recorded during this survey.

It is unlikely that the fish caught represent the entire population in the lake due to its difficulty in being fished and large areas of refuge, however the results are likely to be indicative of the fish populations and present species composition.

| Latin Name                         | Common name  | Number Caught | Average weight |
|------------------------------------|--------------|---------------|----------------|
| <i>Cyprinus carpio</i>             | Carp         | 127           | 10lb           |
| <i>Rutilus rutilus</i>             | Roach        | 1500          | 3.5oz          |
| <i>Scardinius erythrophthalmus</i> | Rudd         | 80            | n/a            |
| <i>Carassius Carassius</i>         | Crucian Carp | 9             | n/a            |
| <i>Carassius auratus</i>           | Goldfish     | 14            | n/a            |

**Table 1.** Species name, number and average weight for Southern Country Park 2015 (average weights were not recorded for minor species as they were too small to be significant. Roach numbers are approximate due to the large quantity caught).



**Figure 2.** Pie chart representing species numbers for Southern Country Park, 2015.

## 6.0 Discussion

Results of the fish population survey at Southern Country Park show that fish numbers were high but the diversity of fish species was low.

Fishing conditions at Southern Country Park during the time of the survey were difficult. This was due to the unexpected submerged obstacles and the dense beds of common reed (*Phragmites australis*).



**Plate 2.0** Net being drawn between dense reed beds

Fish were lost during the first sweep of the net, when it was lifted over the obstacles. Damage to the net also meant that fish could escape before it was brought to the bank. The dense reed beds were also impossible to net and undoubtedly harboured large numbers of fish that avoided capture.

However, the data obtained suggests that the population is composed of mostly smaller silver fish species predominantly Roach (*Rutilus rutilus*) and secondly the larger fish species Carp (*Cyprinus carpio*). The majority of the carp recorded were in excess of 3lb with many in the 5-10 lb. bracket with a small number being into double figures.

The most abundant species in Southern Country Park is the Roach (*Rutilus rutilus*) with approximately 250lb recorded. Every sweep of the net yielded Roach and good numbers in each instance. Again the Roach appeared to be all of a very similar size range with only a handful of larger specimens present and very few juveniles. However the mesh size of the net used may have omitted the capture of juvenile Roach.

## Fish Population Survey, Southern Country Park, December 2015

The second most frequent species was Carp (*Cyprinus carpio*) with fewer individuals than Roach (127) but with a far higher biomass as they are a larger species. Similarly abundant there were also multiple size ranges of Carp too, but no instances of juveniles of this species were recorded.

Other species that were present include the Rudd (*Scardinius erythrophthalmus*) with 6 fish caught during the course of the survey. Goldfish (*Carassius auratus*) and Crucian Carp (*Carassius Carassius*) were also present along with hybrid variants of the above species.

Information forwarded by the Friends Group associated with the park suggested that Tench (*Tinca tinca*) and Bream (*Alburnus alburnus*) were expected in the catch but none of these species were recorded. Captures had been reported in the past by anglers although numbers and size range could not be confirmed.

A significant number of the larger carp also appeared to be underweight for their size but their condition seemed good. All the fish sampled and recorded in the survey appeared to be in good health, with very few superficial marks only found on a small number of individuals and no exterior parasites visible to the naked eye were observed.



**Plate 3.0** Carp typical of Southern Country Park

Very few numbers of other species were captured including a complete absence of predatory species, indicating either a lack of their presence or the ineffectiveness of the survey technique.

## 7.0 Conclusion

Survey results have shown that the fish numbers in Southern Country Park are high and consist of two predominant species Common Carp (*Cyprinus carpio*) and Rudd (*Scardinius erythrophthalmus*).

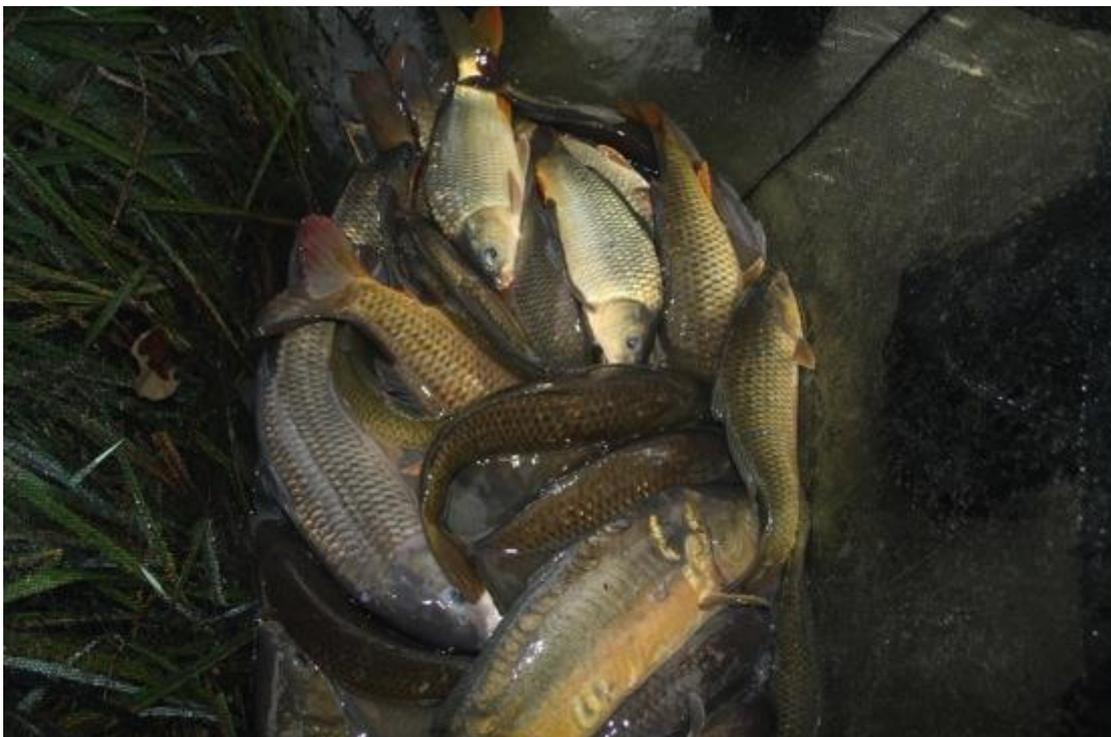
An average mixed species fishery with a natural population maintained by recruitment, would be expected to be able to sustain up to 200lb of fish per acre.

With stocking, fisheries can be expected to hold up to 750lb of fish per acre under the right conditions and with supplementary feeding.

Well over 1000lb of fish was caught during the survey at Southern Country Park, with the lake only being 1.8 Acres in size. As discussed earlier, far more fish were thought to be present but were not recorded through the inefficiencies of fishing the site.

This sort of stock density is therefore classed as high and with very few management practices set in place, could lead to detrimental effect on the fishery and the surrounding aquatic environment.

Fisheries with high stocking densities however are popular and thought of as good sporting and match venues with high catch rates as a result. In addition the two predominant species present are also key species popular for angling, and fishing at the venue should be classed as 'good' if either of these species are the quarry.



**Plate 4.0** A small number of the Carp caught at Southern Country Park

Therefore a happy medium should be sort whereby the fish present still attract anglers, but have a minimal impact upon the ecology of the fishery and therefore the management required.

## Fish Population Survey, Southern Country Park, December 2015

The problem with successfully sustaining fisheries such as this with high stock densities is that one or more factors owing to the fish's survival soon becomes limiting. This could be any number of things from water quality, habitat, disease, food availability, predation, etc. And without a high degree of management eventually degrades, as is clearly becoming the case at Southern Country Park.

One of the key limiting factors at Southern Country Park is the availability of food sources to sustain the rapidly increasing fish population.

Without accurate stocking records for the fishery the initial fish population is unknown, but from evidence found during the survey it can be suggested that the population has exploded from its inception. This is most likely as a result of an abundance of food being present, along with good spawning and nursery habitat and a lack of predators to control a growing population.

This population explosion has resulted in two dominant species being present which are currently occupying different food niches in order to survive. Other species may have been present from the initial stocking but have failed to show up in the survey, possibly due to evading capture, but most likely as a result of them not being present. If they were stocked initially then it is likely that they have been out competed by the remaining species for the available food and have now all perished, giving one possible explanation for the lack of species diversity.

The current stock of the two predominant species appeared to all be of a very similar size and age, with very few juveniles and specimen adults present. This is common in heavily stocked fisheries where population explosions have occurred and is commonly referred to a population stunting.

This is whereby a population reaches a maximum size due to food availability, and the population consists of groups of middle year classes (ages) as adults die and recruitment diminishes.

With a shrinking supply of available natural food, any eggs released during spawning soon get consumed by the present stock. This leads to a compounded issue of reduced recruitment with a population crash ensuing over time. A stock of varied year classes is therefore preferred so natural recruitment can continue, but this is only possible providing that food is available for fish of all year classes to feed on.

Being a predominantly omnivorous species specialising in the mid layer or pelagic region of the lake, Roach feed on a similar diet to that of the Carp when they are at the juvenile stage in their life.

## Fish Population Survey, Southern Country Park, December 2015

Adult Carp specialise in all layers of the water column, but unlike the Roach can utilise the benthic area turning over the bottom sediments in search of food items. This explains why adult fish of the two remaining species have been able to survive in conjunction, by utilising differing food niches, but how the survival of larval and juvenile Carp is also being reduced by competition with the Roach. This along with cannibalism of eggs and juveniles would explain the lack in presence of any small Carp and Roach and a remaining population of stunted fish, all of a similar size and age.

Predation from avian sources may also be having an impact on the recruitment of existing fish populations, as the preferred size prey of predatory birds such as Herons and Cormorants are usually the smaller species and juveniles.

This could be of particular relevance to smaller species other than Roach such as the Crucian Carp *Carassius Carassius*, which are particularly vulnerable to predatory birds and could be an additional contributing factor to the lack of numbers found during the survey.

The Roach and Carp population would currently appear to be unaffected by bird predation but with very few numbers of other small fish species recorded during the survey, may make them more vulnerable in the future as populations of the preferred fish species continue to diminish. The larger Carp are unlikely to be affected by avian predation as they are generally of an unacceptable size range for most common predatory birds.

Poaching and in particular fish being taken for the table by Eastern European communities is unlikely to be having an effect on fish populations at Southern Country Park however this is not to say that it is not happening as the issue is widespread and has increased greatly over the last ten years.

Fisheries with large fish populations usually suffer from poor water quality as a result. This may manifest itself as bad turbidity; poor dissolved oxygen (DO) levels at certain times of year, high ammonia levels and poor pH balance or all of the above.

Problems with water quality can cause severe health problems for fish and could result in mortality, becoming a limiting factor for future survival. Even if fish aren't physically harmed by poor water quality the stress can often lead to secondary problems such as disease.

Disease is caused by pathogens such as parasites, viruses, bacteria and fungus. Some of these pathogens are present in fisheries all the time and are totally natural. Healthy fish with good immune systems will fight off most endemic pathogens.

Pathogens cause problems when they are introduced to a new fish population that does not have a natural immunity to it and when a fish's immune system is reduced, from illness, poor condition or stress. More often than not fish diseases are as a result of fish introductions where new stock infects the existing inhabitants. With large overstocked fish population's disease spreads rapidly often affecting entire populations.

## Fish Population Survey, Southern Country Park, December 2015

In the case of Southern Country Park the water is very coloured and rather turbid with no submerged aquatic plants found. Large numbers of fish turning over the bottom of lakes and continually excreting, adding to the sediment load, can reduce water quality leading to Oxygen problems through increased biochemical Oxygen demand (BOD). The increased nutrient waste from high fish populations can also affect Nitrate and Ammonia levels in aquatic ecosystems, leading to potentially toxic and fatal conditions for all aquatic life.

Despite the turbidity caused by the large fish numbers, water chemistry at Southern Country Park was found to be good. Readings taken for pH showed that at the three different sites chosen, the levels were between 6.9 and 7.2, showing water of relatively neutral pH. It is noted that this reading may change due to seasonal conditions and should be checked as the season's progress.

Dissolved Oxygen readings were not taken as the water was extremely cold and DO problems are not usually associated with low water temperatures. However with a high stocking density, the demand for Oxygen may become an issue during the warmer months, and could result in fish mortality if the population problem is not controlled or managed with aeration.

This current state of good water quality could be attributed to the dense reed beds at the head of the pond, acting to filter the incoming water of organic pollutants and harmful waste chemicals produced by the fish themselves.

The site also has a large outflow, which will allow for the rapid turnover of water through the site, frequently diluting any bad water chemistry with every influx.

### **8.0 Fishery improvements**

#### **8.1 Fish populations**

The findings of this survey have indicated that fish numbers at Southern County Park are high, species diversity is low and that over population is beginning to have a negative impact on the existing population and the ecology of the site.

It is therefore recommended that total fish numbers are considerably reduced to a more manageable level i.e. between 200 and 750lb. per acre, and that the species composition is manipulated to include a wider variation of fish species including predators.

Excessive stocks do have a commercial value and once captured can generate a return that can be put back into more suitable fish stocks and or the management of the site. A fishery must however first obtain a health check of its fish stock to prove that it has no notifiable diseases present before moving them on.

Predatory fish were not caught during the survey and it is advised that as and when new fish are introduced, Perch (*Perca fluviatilis*) are stocked to manage the Roach population, preventing it from exploding again. Numbers can be introduced to allow for natural recruitment and added to or reduced as and when required.

Suggested replacement fish stock alongside Perch, should include species such as Bream (*Abramis brama*), Crucian Carp, Rudd (*Scardinius erythrophthalmus*), and Tench (*Tinca tinca*). Where possible these species should be stocked as large as possible to avoid losses through avian predation.

Additional fish stocking should take place in one action rather than several introductions and from ideally one trusted source. This reduces the likelihood of disease transfer to the fishery and its existing inhabitants. New stock should be appropriately quarantined and observed for disease infestation prior to stocking, in conjunction with legislation as stipulated by The Fish Health Inspectorate (FHI) and the Environment Agency.

The fish population should then be regularly monitored and imbalances adjusted through the removal of excessive fish numbers to avoid the same problems arising again.

## **8.2 Vegetation**

The margins surrounding the lake consist of three main species; Common Reed mace (*Typha latifolia*), Reed Sweet Grass (*Glyceria maxima*) and Common Reed (*Phragmites australis*). All of these species are considered to be invasive and without proper management will start to encroach shallow areas of the lake making access and recreation difficult whilst outcompeting other plant species for available space. Although the reeds do provide excellent habitat and fish refuge a balance must be struck between the management requirements and those of habitat.

Where possible excess vegetation should be selectively cut back, and in some areas completely removed to create better access for management tasks and more open areas of water to fish, yet still retaining plentiful habitat. In particular the stands of *Phragmites* that extend beyond the gabion baskets that separate the inlet from the body of the lake on either side, should be thinned to leave a considerable reduced fringe.



**Plate 5.0** Encroaching vegetation requiring future management

Submerged species were notably lacking from the lake at Southern Country Park. This can be attributed to the time of year that the survey was undertaken, but is most likely as a result of uprooting and over shading by turbid water from high fish numbers. Submerged plants such as lilies and broad-leaved pondweeds should be encouraged once the problem of high fish numbers has been overcome, as they provide a good food source, habitat and refuge from avian predators.

As discussed earlier the large reed bed at the head of the pond is acting a giant filter stabilising water quality and should be managed as such. This area is inaccessible to fish so the provision of aquatic vegetation around the margins of the main body of the pond is essential for the wellbeing of aquatic life.

### **8.3 Debris Removal**

One of the key management activities suggested for Southern Country Park is manipulating the current fish stocks. For this to be successful the site must be maintained so that regular seine netting for fish removal can be undertaken.

Along with the control of the encroaching vegetation the submerged gabion baskets found during the survey must be removed to provide clear access for netting. Three stone filled gabion baskets were found at various locations throughout the main body of the pond, some of which are damaged with the stone contents and jagged wire left protruding.

These could be removed during periods of low water level by emptying the baskets of their stone contents and retrieving the baskets from the bed either by hand or by winch.



**Plate 6.0** Operative standing on top of one of the submerged obstacles

#### **8.4 Angling**

Fishing at Southern Country Park can be currently described as a ‘free to all’ scenario with little outside management from Council or Environment Agency. As such, this lack of policing can and does promote bad angling practice and increases the chance of anti social behaviour resulting in damage to the site, the stock and can eventually lead to ecological and financial issues that require remedial action to rectify.

It is understood that attempts were made, but that there was little interest from any local angling clubs wishing to undertake stewardship of the site even at a reduced rent. This poses the suggestion of how to manage the water to enable an income that can be put into bailliffing and the upkeep of the site.

Aside form the revenue generated from selling permits and any surplus funds left over from potential fish sales, the deficit could be achieved through grants and funding from charitable organisations associated with angling or the development of fisheries.

The most likely source of external funding for fishery and angling development is through an organisation called the Angling Trust. Funding is available through their Angling Improvement Fund generated by Environment Agency rod licence money awarded to improve facilities, which encourage angling. The Angling Trust also provides national support on subjects such as policing, security and legal matters, to support all forms of game, coarse and sea angling.



**Plate 7.0** Angling a Southern Country Park

Another charity, which works very closely along side the Angling Trust to promote fishing, is Sport England. They are a lottery-funded charity that provides investment for organisations and projects that will encourage people to participate in sporting activities such as angling. Several different funding streams are available from Sport England and are available through the local sports development officer. For more information on the charity and obtaining funding through one of its schemes visit their website at [www.sportengland.org](http://www.sportengland.org).

Get Hooked on Fishing is another very similar charitable organisation that may be able to supply funding to improve angling facilities for disabled, disadvantaged and disruptive children. Further details can be accessed through their website which can be found at [www.ghof.org.uk](http://www.ghof.org.uk).

The Environment Agency is able to offer advice and in certain cases assist with small-scale management issues and even provide funding for fishery development. Further information on this is available through the local Fisheries Officer.

## 9.0 Key Recommendations

- Manage the existing fish stock to reduce over population by removing excess Carp and Roach.
- Redress the fish population imbalances by introducing different fish species including Perch.
- Manage encroaching invasive reed species by thinning excessive growth.
- Remove obstacles hindering successful management of the fish stocks from the water and surrounding marginal areas.
- Reduce avian predation by encouraging submerged aquatic vegetation and or installing floating reed beds and fish refuge.
- Introduce bailliffing to manage angling and potential antisocial behaviour.
- Introduce a small ticket price for angling to pay towards the sites management.
- Actively promote and develop angling on the site seeking support from national organisations for funding.
- More signage and interpretation boards to allow better understanding of the visitor experience and the requirements of its users, including anglers.