Wildlife Enhancement Plan

for

Nottingham Park Residents Association

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Sponsored by

The Nottingham Park Residents Association
The Nottingham Park Estate Limited

Supported by
Nottinghamshire Wildlife Trust

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Contents

Introduction

This report, commissioned by the Nottingham Park Residents Association – Biodiversity Project (NPRA) with the support of the Nottingham Park Estate Limited has been produced by Nottinghamshire Wildlife Trust.

The Aim of the report is:

***'To examine how The Park can maximise its potential for nature conservation, in ways that are in keeping with its location, and which may make a positive contribution to the community'*.**

This has also resulted in broader objectives, which are:

1. **Produce clear, thought through options for wildlife enhancements to both publically accessible spaces and private gardens within The Park - to themes identified by NPRA**
2. **Build a creative and productive relationship between NPRA and Nottinghamshire Wildlife Trust**
3. **Explore potential for future partnership working and examine how such work might be resourced**

It is worth noting that objectives 2 and 3 refer to the future aspirations of the NPRA's Biodiversity Project and the Wildlife Trust. This report should be viewed as a set of options from which NPRA can select from with confidence that their delivery will bring excellent outcomes for wildlife and their community. The next steps from this report are for NPRA and partners to decide upon which actions are their priorities for them to progress.

NPRA are not new to this work and have set a list of priorities or 'strands' for this report to focus upon. The Wildlife Trust has made minor amendments to these strands to ensure good wildlife coverage but otherwise has adopted the strands as areas to focus upon. Each strand is covered separately using a common report structure and in some cases has been worked up in collaboration with NPRA. Therefore the reader can either consider the report as a whole or simply refer to the strand/s that interests them most.

The reader will also take more from this report if they bear in mind some of the context of management planning for wildlife. Conservationists are experienced at writing plans, to maximise the biodiversity potential of a given space and to provide land management continuity to spaces such as nature reserves. This process works well but may well need to alter somewhat in order for it to be suitable for areas such as residential estates where hundreds, perhaps even thousands of individual land owners each have their own influence.

Given this context we're delighted that the Park wish to mix their motivation and skills with our expertise to examine how wildlife conservation can continue to progress across the park. We hope that this brief report may stimulate further partnership work.

Strategic context

Wildlife in the UK is under continued pressure, indeed the recent State of Nature Report, (2013) pointed out that '*60% of the species studied have declined over recent decades. More than one in ten of all the species assessed are under threat of disappearing from our shores altogether'.* To combat this conservation is changing with ever more focus on conservation on a larger scale, something that they have titled 'Living Landscapes'.

Nottingham City is a Living Landscape and undeniably The Park is a significant contributor to its biodiversity. The land use baseline of the estate showing 48% of the total 59.23 hectares is greenspace. This is a significant contribution to green space resource, add to that the mature tree element, its proximity to the wildlife corridor of both the River Trent, Leen, Erewash and canal, and its clear that the Park has much to offer wildlife.

Partners

The organisations central to this report includes.

Nottingham Park Residents Association (NPRA)

NPRA is the Nottingham Park Residents' Association. Membership is open to all residents of the Park Estate. The Association aims to:

• promote residents' interests and work to improve their services, amenities and environment;
• encourage and facilitate local residents' involvement through the provision of an established organisation;
• organise events of interest to residents;
• represent the interests of residents.

NPRA makes representations on behalf of residents to other organisations, like Nottingham Park Estate Ltd, Nottingham City Council and even, on occasion, the government. NPRA talks to local decision makers on behalf of residents, making sure the views of those who live in the estate are taken into account.
www.parknews.co.uk

The Nottingham Park Estate Limited (NPEL)

Nottingham Park Estate Limited (NPEL) was formed in 1985 essentially to 'maintain and improve the roads and common parts within the Estate,

The Park is a private estate and therefore the roads, footpaths and common areas are maintained at the residents' expense. The maintenance is administered by the Company which consists of up to ten Directors (elected residents of The Park), a small staff team and contractors such as Jack Kent Services.
www.thenottinghamparkestateltd.co.uk

Nottinghamshire Wildlife Trust

Nottinghamshire Wildlife Trust is the county's largest environmental charity run by local people for the benefit of local wildlife and wildlife habitats. The Wildlife Trust has almost 11,000 members, manages over 70 nature reserves covering more than 1,000 hectares and aims to engage 15,000 people a year in wildlife activities. The organisation's vision is to protect Nottinghamshire's Wildlife, restore biodiversity and inspire people about the natural world.
www.nottinghamshirewildlife.org

Amphibians and Ponds

What we mean by amphibians

A cold-blooded, vertebrate of the class Amphibia, such as a frog, toad or newt that characteristically hatches as an aquatic larva with gills. The larva then transforms into an adult having air-breathing lungs.

What we mean by a pond

A pond can be defined as a body of still water, which can vary in size between 1m^2 and 2 hectares (this is equivalent in size to about 2.5 football pitches), and which holds water for at least four months of the year.

Constraints

Ponds are fantastic for wildlife and indeed for people too but they do require maintenance and some people will have safety concerns over the risk of perhaps children drowning. As a result they are less commonly installed in public spaces. The Park may have a limited number of ponds, with few ponds suitable for breeding amphibians. The lack of recording of amphibians means that their status is hard to define.

Data/History

NPRA are aware of 15 pond swith details of 8, they range in size from 3sq ft to 84 sq ft a good number of these have presence of frogs, one with toads and another with newts thorgh these records.

From other data sources: 17 out of the 78 respondents of the Park Garden Survey 2012 have ponds. The only amphibian mentioned during the survey was a frog. Frogs can be found in many ponds which are suitable for their survival. They are excellent swimmers, using their powerful hind-legs, which on land are frequently used for leaping up to six or seven times their own length. Garden ponds are becoming an increasingly important refuge for frogs forced out of their old habitats. It has been estimated that nearly 50% of frogs in Britain live in garden ponds. This can be good news for the gardener, as they eat a number of insect pests such as slugs and snails. Frogs usually return to the same pond every year. Frog colonies tend to be fairly small, so they can exist quite easily in garden ponds.

There is clearly a great potential for increasing the biodiversity in The Park by installing a wildlife ponds. Ponds form part of an important ecological food chain and attract many species into an area.

Goals

To increase the number of wildlife friendly ponds with associated 'amphibian friendly' terrestrial habitat near to the pond (e.g. long grass, log piles and open compost heaps) within The Park.

To increase the surveillance and reporting of ponds and their related wildlife.

Possible Action Plan:

We believe that for people to consider creating a wildlife friendly garden pond they need to be inspired and enabled to do so.

Inspiration can come from - a wildlife encounter, education about benefits and the threats to wildlife and showcasing what can be done.

Enabling people can be through - practical assistance, organised and targeted schemes or program to create ponds, subsidies, sponsors or other incentives. We have included a range of pieces of advice on pond creation as Appendix 1

- **Wildlife encounters**

There are numerous inspirational wildlife settings around Nottinghamshire that encompass wetlands, such as rivers, ponds, wet meadows and wet woodlands. An organised visit to such a site with associated information provided could prove helpful in inspiring people to reassess what they would like to have contained within their own garden. Indeed a wetland and pond tour could be organised to visit a nature reserve and look at how a smaller scale wildlife pond could be created at home.

- **Education**

Wetland Wildlife can be a fascinating topic and encompass almost all wildlife – all life needs a source of water and a large proportion obtain theirs from some form of wetland feature. We could look to disseminate information via publications, article on websites or structured informal training / volunteering sessions. This would be aimed at establishing the need for ponds and inspire people as to what they might see in their own garden if they were to invest some time and energy.

- **Showcasing**

Showcasing ponds can be done in two ways, firstly existing ponds in gardens can be advertised with residents encouraged to come forward to demonstrate how they created or maintain a viable pond. Secondly the creation of large ponds in visible or public spaces can provide very public examples and demonstrations of commitment.

The demonstration of private ponds in gardens could be linked with 'The Garden Trail' that takes place every other summer. If a willing owner could be found then they could be supported to provide information about their garden pond as a wildlife feature with some guidance given out to visitors to take away and consider.

As for large ponds in public spaces we believe that there are two opportunities where this could take place. The front of The Park Estate Office and the area called The Paddock. Both would require either considerable volunteering labour or would require profession design and execution.

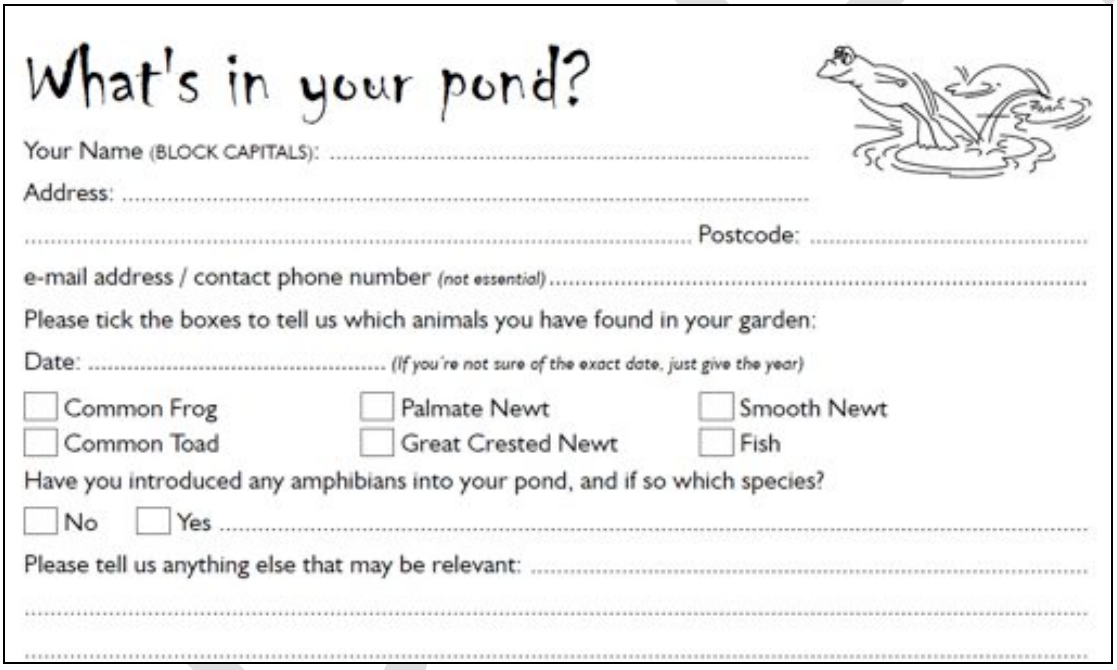
The area by the Park Estate office is a visible location and although would be enhanced by a pond would perhaps favour a neater landscaped pond as opposed to a wildlife pond. This would

still have good to moderate wildlife value. The Paddock could contain a substantial wildlife pond and as the area already has some associated habitats required by invertebrates and amphibians could provide a considerable biodiversity gain. From a conservation perspective this is an exciting proposition and would be our primary recommendation

Both these ponds would required substantial digging out and groundworks, butyl liner, liner protection and some form edging, planting, filling and maintenance budget.

Improve recording of wildlife in and around ponds

Below is an example of a simple recording form which could be adapted / amended etc as required to collate a database of records. The web link is
http://www.argsl.org.uk/index.php?option=com_docman&task=doc_download&gid=38&Itemid=7



What's in your pond?

Your Name (BLOCK CAPITALS): .....

Address: .....

..... Postcode: .....

e-mail address / contact phone number *(not essential)* .....

Please tick the boxes to tell us which animals you have found in your garden:

Date: ..... *(If you're not sure of the exact date, just give the year)*

☐ Common Frog ☐ Palmate Newt ☐ Smooth Newt

☐ Common Toad ☐ Great Crested Newt ☐ Fish

Have you introduced any amphibians into your pond, and if so which species?

☐ No ☐ Yes .....

Please tell us anything else that may be relevant: .....

.....

.....

An alternative to this would be to have an online recording form attached to The Park website. Example of Nottinghamshire Wildlife Trust Website online amphibian survey
http://www.wildlifeinthecity.org/sightings/amphibian-watch/

Creating amphibian friendly habitats

- Long grass and shady borders give good shelter for amphibians so we would advise leaving an area of long lawn near a pond.
- A compost heap offers the perfect environment for amphibians and toads in particular love burrowing in the warm moisture of rotting compost.
- An informal rockery near a pond would be invaluable feature for hunting opportunities, sheltering and even for hibernating. This sort of feature can also be created by a log piles.
- An artificial frog or toad home from specialist suppliers. They consist of a simple box with a small doorway and should be placed in a shady cover with good cover. A cheaper option could be to use an upside down ceramic plant pot!

Indicative Costs

Pond Creation

- Approximate cost of 5m x 4m PVC pond liner is approx **£100**.
- Underlay is just a few pounds per metre (25m roll is **£80**)

- Enough plants for an average garden pond will cost about **£100** depending on the size bought ie plugs or larger pot plants.

Large Pond creation

- Approximate cost of 10m x 10m pond in The Paddock would be **£2500**

Useful Information / Legal Implications

Common amphibian species (i.e. common frog, common toad, smooth newt and palmate newt) are afforded partial legal protection under UK legislation, i.e. Schedule 5, Section 9 (5) of the WCA 1981 (as amended) and the Countryside and Rights of Way (CRoW) Act 2000. This legislation prohibits:

- Sale;
- Transportation; and
- Advertising for sale.

Recommended supplier of pond liners: Branson's Aquatics, Hucknall: http://www.bransons-hga.co.uk/ponds.php

General pond advice http://www.pondconservation.org.uk

Recommended supplier of pond plants: Naturescape Wildflower Farm Tel: 01949 860 592 or Web: www.naturescape.co.uk

FrogLife http://www.froglife.org/about

Amphibian and Reptile Conservation http://www.arc-trust.org

Dragons in your garden http://www.arc-trust.org/dragons/

Frog info Sheet on Nottinghamshire Wildlife Trust Website
http://www.nottinghamshirewildlife.org/images/uploads/Animal_Facts_-_FROG.pdf

Toad info Sheet on Nottinghamshire Wildlife Trust Website
http://www.nottinghamshirewildlife.org/images/uploads/Animal_Facts_-TOAD.pdf

Newt info Sheet on Nottinghamshire Wildlife Trust Website
http://www.nottinghamshirewildlife.org/images/uploads/Animal_Facts_-_NEWTS.pdf

Frog/Toad Home http://www.amazon.co.uk/Wildlife-World-Frog-Toad-House/dp/B001CT1ULG

Project Costing section of the Pond Creation Toolkit
http://www.pondconservation.org.uk/millionponds/pondcreationtoolkit

Birds

What we mean by Birds

Birds are feathered, winged, warm-blooded, egg-laying animals. Useful as indicators as to the condition of a habitat they are also intrinsically interesting and attractive to many, being easy to view, hear and appreciate.

Constraints

Birds encompass a very broad group of creatures with varying life cycles and patterns of behaviour. They are nearly always considered in any management advice and indeed protecting their welfare is a common factor in the timings of practical conservation work. Across a residential area their will be a lack of breeding and foraging habitat for many species. Therefore, there will be a specific set of species to target within this plan.

Data/History

The excellent article 'Birds in the Park' by Steve Brazier Nov 2012 states that more than twenty species are commonly seen in the Park. These include the robin, blackbird, chaffinch, carrion crow and woodpigeon, all easily recognisable and with familiar songs and calls. Sadly, several species once common are now rarely if ever seen, including house sparrows, starlings and song thrushes. In contrast, some birds seem to be on the increase, including the long-tailed tit, jay and goldfinch.

Latest full bird information may be available from Steve Brazier.

Species seen from 2012 Park Garden Survey include the following.

Robin Blue tit Blackbird House sparrow Long tailed tit Great tit Wood pigeons	Great tit Jay Great Spotted Woodpecker Gold finch Magpie Spotted Flycatcher	Goldfinch Starling Sparrowhawk Tawny Owl Wren

Goal

To maintain and then increase the diversity/numbers of birds to feed and nest within the park. Providing the ideal conditions for attracting birds ie. Cover and Food Sources

Possible Actions

Given that the majority of birds in The Park will depend upon habitat contained within private gardens we have restricted our recommendations to those split between **raising awareness**, simple **practical actions** for within gardens and publicly accessible spaces. Equally these both fit the overarching theme of engaging the wider community in the overall biodiversity project.

Raising awareness

- **Nest box kits for children** to create their own nest box are very popular and could either be made at an event or provided for people to make at home. This could be connected to a competition, incentive or a target to achieve a good number of new boxes. Nest boxes should be fixed during Autumn for best results.

- A **Trail Camera** could be used to obtain still images or video of birds visiting a seed hopper at various location or perhaps even footage form within a nesting box could be easily obtained using an inexpensive kit. Both could provide footage that could be replayed on the NPRA website.

- Access to a **bird netting and ringing session** with a suitably qualified group would bring people close to birds. This idea could be explored and organised with Andy Lowe (Western Conservation Officer) Nottinghamshire Wildlife Trust, qualified bird ringer and a member of the Birklands Ringing Group. Sessions could be held at a nature reserve in the Sherwood area and possibly at a venue within The Park or even at a venue not typically open to the public depending upon the intended audience and number so people interested.

Actions for gardens and open spaces

- **Plenty of vegetation cover** is essential for birds to provide shelter and nesting opportunities. Planting **of native shrubs and trees or even a hedgerow** within gardens will make the area more attractive for birds. Placing bird feeders near shrub cover will make the feeders more attractive to birds as they require having the safety of this cover as they fly to and from the feeders. A number of plants are particularly valuable to birds as a source of fruits, berries or seeds. Blackbirds take a range of fruits including haws, rosehips, sloes, dogwood, buckthorn, elder, yew and holly. Song thrush shows a clear preference for yew, sloes, elder and guelder rose. Mistle thrush prefers sloes and holly but also will take berries from rowan trees. Redwing and fieldfare also show a strong liking for haws. Some introduced species such as Pyracantha are also attractive to thrushes. There is a possibility that by providing a range of berry bearing shrubs and trees you may even attract waxwings into your garden!

- Insects are essential for healthy chicks so try **minimising pesticide** use in gardens and public spaces.

- **Supplementary bird feeding** plays a vital role in maintaining healthy populations of garden birds. The key strategy to encouraging bird diversity in a garden throughout the year is to provide a **range of food, both natural and supplementary**. High energy seed mixes that contain the following are greatly appreciated.

    1. Small seeds such as millet are attractive to **house sparrows**. Black sunflower seeds have high oil content and so have an excellent energy value and are particularly liked by **blue and great tits**. Peanuts are rich in fat and are popular with tits, **greenfinches** and **great spotted woodpecker**.

2. Look for seed mixes that contain suet and insects because these will provide food for **robins and dunnocks** when spread on the ground.
3. Nyjer seed has high oil content, which appeal to **goldfinch and siskin** because they have fine bills that are capable of extracting seeds.
4. Fat balls and cakes are an excellent winter food that is appreciated by tit species, including **long-tailed tit, and great spotted woodpecker**.
5. Live meal worms and grated cheese are relished by **robins, blackbirds and starlings**.

A bird table and hanging feeders are an excellent way of providing food for a range of bird species and should be placed close to high cover so that birds have somewhere to shelter from predators. Species such as robin, blackbird and Dunnock are primarily ground feeders and so food should be placed away from dense cover where cats can lurk.

- Improve nesting potential for birds is always a positive step, however we would encourage the provision of nesting targeted towards supporting species of conservation concern. There are several which have been sighted in the park and include **house sparrow**, **spotted flycatcher** and **starling**. These species are on the British Trust for Ornothologys' (BTO) Red list which includes species that fall into at least one of the following categories:

1. Globally threatened
2. Historical population decline in UK during 1800–1995
3. Severe (at least 50%) decline in UK breeding population over last 25 years, or longer-term period (the entire period used for assessments since the first BoCC review, starting in 1969).
4. Severe (at least 50%) contraction of UK breeding range over last 25 years, or the longer-term period

We therefore recommend installing specialist nest boxes such as the following:

House Sparrow (right)

House sparrows like dense cover ie hedgerows and untidy areas with bramble, even relatively small areas are important. They prefer to nest communally close to other sparrows so this terrace box produced by Schwegler is ideal for up to three nesting pairs and can to placed on the side of a building 4-6 metres above the ground.

Spotted flycatcher (below)

Prefer open fronted nest boxes that are hidden within Ivy covered trees and walls (this type of box will also be used by robins).

Starling (right)

Starlings prefer deep nesting boxes such as the Schwegler 3S Starling nest box which can be located on trees, pillars or buildings.

Other nesting advice would be:

- Continue the ongoing **SAVE OUR SWIFTS** campaign with 9 swift boxes initially installed. Increase number of swift nest boxes in the park next year and ensure that swift calls are broadcast to ensure that efforts are made to attract them to the new nesting sites.

- To increase bird nesting potential 'Tit' type boxes with a 32mm hole could be attached to trees in public open spaces for use by a number of species including **Blue, Great and Coal Tit, Nuthatch**. We recommend Schwegler bird boxes are made of a unique wood-concrete material, an entirely natural product consisting of 75% wood and various additives to compensate for climatic changes. This provides insulation against temperature fluctuations, allows air to pass through the walls, prevents the formation of condensation and means that they will last at least 20–25 years. Boxes should face north-east to avoid wet and windy weather from west and preferably not in direct sunlight).

- Maintenance - where it is practical **clean nest boxes out** by removing old nests at the end of the nesting season (October to February) and washing the inside with a suitable disinfectant thus reducing the chances of parasitic infection next season. Safe disinfectant such as is available from a number of specialist bird food retailers (see Useful information). Boxes can be used for sheltering and roosting during the winter so you may wish to line them with cotton, dry straw or wood shavings several weeks after cleaning, when the boxes are fully aired to make them warmer. Boxes should be maintained in good order to ensure they protect nesting birds from wind and rain.

- **Tawny owls** have been seen / heard in the park. As they are active only at night and its brown body is very difficult to spot when it roosts against a tree trunk or among ivy, it is not often seen. Sometimes it can be seen in daylight, but only when it is disturbed. If this does happen, its presence is often revealed by the mob of small birds which are harassing it to keep it away from their nests. We are able to provide a nest box for the resident tawny owl (**Nottinghamshire Wildlife Trust can provide a box free of charge**) (See NPEL strand). Alternatively there are many other sources for owl box designs and purchase.

- Substantial levels of bird feeding can be supported in private and public spaces through the use of large seed hoppers. Across farmlands sites in the county we co-ordinate the installation and supply of seed to a network of hoppers. We consider that adoption of this scheme by The Park may have considerable benefits. Essentially we could site a series of perhaps half a dozen hopper feeders in discrete locations. These hoppers can then be maintained and refilled with seed by a small team of volunteers. It should be noted that spilt seed falling to the ground can attract vermin and squirrels so we would recommend monitoring and either changing their position,

emptying from time to time or installing some form of tray and cone under the hopper to minimise spilt seed and to make it more difficult for squirrels to access the hopper.

This we believe would be productive activity for a group to adopt and be involved in that would significantly help to support bird populations across the estate. The Wildlife Trust can recommend seed supplier and supply both the hoppers, and all advice.

A good location for a feeding station would perhaps be the Office of NPEL.

Indicative Costs:

- Schwegler tit bird boxes http://www.wildcareshop.com/hole-front-bird-box.html **£25 each**
- Tawny owl nest box **£80** http://www.nhbs.com/tawny_owl_nest_box_tefno_179704.html
- Seed hopper and post **£60** and 20kg bag of seed **£18** (from local supplier through NWT) and would estimate that each hopper would require around 8 bags of seed (if feeding between December and March).
- Nest box kits for children **£8** (from local supplier through NWT)
- Trail Camera (**currently £95**) http://www.nhbs.com/title.php?bkfno=184220&ad_id=1495&gclid=CP7MtNzNs7YCFZDKtAodqmAAAA

Legal Implications:

Birds and the law

The bird breeding season generally lasts from early March to September for most species. All birds are protected under the WCA 1981 (as amended) and the CRoW Act 2000. This legislation makes it illegal, both intentionally and recklessly to:

- Kill, injure or take any wild bird;
- Take, damage or destroy the nest of any wild bird while it is being built or in use;
- Take or destroy the eggs of any wild bird; and
- Possess or control any wild bird or egg unless obtained legally.

Birds listed under Schedule 1 of the WCA 1981 (as amended) are afforded additional protection, which makes it an offence to disturb a bird while it is nest building

We therefore recommend any work (other than very light trimmings) on shrubs or trees within the public open space or within private gardens are done outside the bird breeding season which is October to February.

Useful Information:

Also see 'Birds in the Park' by Steve Brazier Nov 2012.

Basic Nest Box instructions
http://www.nottinghamshirewildlife.org/docs/supporters_nest_boxes.pdf

Wild Life Skills #3 - How to make Bird Cake
http://www.youtube.com/watch?feature=player_embedded&v=4u7oVAZG60w

The Wildlife Garden Project - How to Make a Bird Box
http://www.youtube.com/watch?feature=player_embedded&v=tJI19bAxoQc

Tawny Owl: Animal Facts
http://www.nottinghamshirewildlife.org/images/uploads/Animal_Facts_-_TAWNY_OWL.pdf

Tawny Owl box instructions
http://www.barnowltrust.org.uk/content_images/pdf/Tawny_Owl_Nestboxes_27.pdf

Tawny Owl Nest Box http://www.nhbs.com/tawny_owl_nest_box_tefno_179704.html

House Sparrow terrace box
http://www.nhbs.com/schwegler_1sp_sparrow_terrace_tefno_174850.html

Starling Nest Box http://www.nhbs.com/schwegler_3s_starling_nest_box_tefno_177925.html

Spotted flycatcher
http://www.arkwildlife.co.uk/Item/NA/NBS-2H/Schwegler_2H_Open_Nest_Box.html

Wildbird Safe Disinfectant by Chapelwood
http://www.petsathome.com/shop/wild-bird-safe-disinfectant-0.5l-by-chapelwood-34927

Bees, Butterflies & Ladybirds

What we mean by…

Bees: Bees are flying insects in the order Hymenoptera, are closely related to wasps and ants, and are known for their role in pollination and for producing honey and beeswax.

Butterflies: A butterfly is a mainly day-flying insect of the order Lepidoptera, which includes the butterflies and moths. The butterfly's life cycle consists of four parts: egg, larva, pupa and adult.

Ladybirds: A family of beetles known as Coccinellidae. Coccinellids are small insects, commonly yellow, orange, or scarlet with small black spots on their wing covers, with black legs, head and antennae.

Of course we would hope to see invertebrates in general approached but in terms of engaging residents it may be best to focus on those more visible and enjoyable spcies which will benefit form improvement. Improving for them will doubtless improve the habitats for others too.

Constraints

Butterflies and Ladybirds have good reputations with the public and are enjoyed widely as part of people enjoying the spells of good weather through the year. Bees can have a mixed reception, many people liking them but just as many perhaps wary because of Bee's potential to sting. There has been no recording for all three which hinders our ability to make specific plans, however we are confident that there will be a range of species present and that general advice will be useful.

Data/History

There are currently no records of any of these insects for The Park although they will be abundant and be enjoyed in most gardens and public spaces that have flowers producing pollen and nectar. Nectar is loaded with sugars and is great source of energy and pollen provides the balanced diet of proteins and fats. Some beekeeping may take place within The Park though the scale of this is unknown.

The types of **bees** likely to be seen in The Park area:

- Honeybee (Apis mellifera)
- Several species of Bumblebee (Bombus species). In the UK there are 24 species of bumblebee but only eight are commonly found. The tree bee (*Bombus hypnorum*) in particular are spreading fast and will often use bird boxes.
- Solitary bees (Andrena, Lasioglossum and other species)
- Mason bees (Osmia species)

A number of common **butterflies** are likely to be seen with the peacock (see above photo) being one of the most impressive. Other species likely to be seen are the small white, red admiral, gatekeeper, green veined white, comma speckled wood and holly blue.

The seven-spot **ladybird** (**Coccinella septempunctata**) is easily one of Britain's most common and easily recognised beetles.

Green gardens need pollinators, and bees and butterflies are among the best. Without them there would be limited flowers and even fewer fruits and vegetables. Ladybirds and their larvae in particular, are avid and very active aphid predators, devouring more than 5,000 during their year-long life and therefore should be also be considered a gardeners friend.

Goal

Increase the apparent number and diversity of bees, butterflies and ladybirds across The Park.

Increase recording and appreciation of bees, butterflies & ladybirds amongst Park residents.

Possible Actions

Try to do as many of the following as possible to attract bees, butterflies & ladybirds.

- **Don't use pesticides**. Most pesticides are not selective and will kill the insects you are trying to attract.

- **Use local native plants**. Research suggests native plants are four times more attractive to native bees than exotic flowers. They are also usually well adapted to your growing conditions and can thrive with minimum attention.

- **Avoid** plants with double or multi-petaled flowers. Such flowers may lack nectar and pollen, or insects may have difficulty in gaining access.

- **Chose several colours of flowers**. Bees have good colour vision to help them find flowers and the nectar and pollen they offer. Flower colours that particularly attract bees are blue, purple, violet, white, and yellow.

- **Plant flowers in clumps**. Flowers clustered into clumps of one species will attract more pollinators than individual plants scattered through the habitat patch. Where space allows, make the clumps four feet or more in diameter.

- **Have a diversity of plants flowering all season**. Most bee species are generalists, feeding on a range of plants through their life cycle. By having several plant species flowering at once, and a sequence of plants flowering through spring, summer, and autumn, you can support a range of butterfly & bee species that fly at different times of the season.

- Plant flowers where butterflies, bees & ladybirds will visit. They generally favour sunny spots over shade and need some shelter from strong winds.

- Our recommendations **insect friendly planting** that will attract invertebrates' such as butterflies and bees include the following species:

    - **Ox-eye Daisy** (*Leucanthemum vulgare*) - Bright yellow and white flowers
    - **Field Scabious** (*Lepidium campestre*) - Very popular with beetles and moths for nectar and pollen
    - **Common Knapweed** (*Centaurea nigra*) – Very popular with butterflies in mid to late summer

- **Yarrow** (*Achillea millefolium*) – Another important source of mid summer nectar
- **Foxglove** (*Digitalis purpurea*) – Biennials that produce new flowers every two years and are a favourite of bumblebees.
- **Viper's bugloss** *(Echium vulgare)* – vivid purple blue flowers which are very attractive to bees
- **Agrimony** *(Agrimonia eupatoria)* – yellow flowers on a slender flower spike
- **Red valerian** *(Centranthus rubber)* – pinky red clusters of flowers in June and July.
- **Great Mullein (***Verbascum Thapsus)* – 2 m tall yellow flowered plant
- **Dark Mullein** (*Verbascum nigrum*) – smaller plant with yellow flower spike
- **Birdsfoot Trefoil (***Lotus corniculatus)* – low growing yellow flowered plant, member of the pea family
- **Bugle** (*Ajuga repens*) – very low growing purple leaved plant with spikes of blue flowers.
- **Creeping Jenny** *(Lysymachia nummularia)* – prostrate and creeping lime coloured leaves with yellow flowers.
- **Stinking or Green hellebore** – *(Helleborus foetidus or viridis)* – spring flowering.
- **Buddleja davidii** (the butterfly bush) which although is a non-native shrub will attract many butterflies. This shrub would need to be hard pruned in March every other year to keep it in check**.**
- **Hebe 'Great Orme'**. Again a non-native but flowers over a much longer period.
- **Lavender shrubs** are also very attractive to butterflies and bees and are evergreen, giving the flower beds some structure in the winter.
- **Wild marjoram** *Origanum vulgare* is a garden herb that has pink/purple flowers and is very attractive to both bees & butterflies.

- **Leaving a wild area in a garden where grass is not cut** will allow certain butterfly species such as speckled wood, ringlet and gatekeeper to lay there eggs and provide caterpillars with a food source.

- Allowing small areas of **nettles** to grow in sunny locations will enable butterflies such as the peacock, red admiral and small tortoiseshell to lay their eggs and provide a food source for their caterpillars.

- **Provide nest sites for solitary bees**. Some will nest in hollow stems, such as bamboo canes or herbaceous plant stems. See below for **making a bee house.**

- Encourage activities with any Bee keepers within The Park demonstrating or celebrating their activity possibly in partnership with Nottinghamshire Beekeepers Association.

- In recent years a non-British species of ladybird has begun to spread within the United Kingdom. This is the **harlequin ladybird (Harmonia axyridis)**, which has a voracious appetite and is able to out-compete our native species in the hunt for food. It will even eat other species of ladybird. The spread of the harlequin ladybird is leading to serious declines in a number of our native species. If you do find one, or think you have, you can report this to the **national harlequin monitoring scheme** at http://www.harlequin-survey.org.

- Take part in the **Big Butterfly Count** through Butterfly Conservation http://www.bigbutterflycount.org/about .Simply count butterflies in your garden or public open space for 15 minutes during bright (preferably sunny) weather between the period 20th July to 11th August.

Indicative Costs

These actions are typically about a change in behaviour rather than any spend, other than perhaps for planting. A notional figure could be budgeted for to perhaps buy plants for sale at the farmers market.

Useful Information

- We recommend that all plant stock used should be of native genetic origin and ideally of local provenance**. Supplier:** Naturescape British Wild Flowers, Maple Farm, Coach Gap Lane, Langar, Notts NG13 9HP Tel: 01949 860 592 or Web: www.naturescape.co.uk

- Make your own bee house - http://www.youtube.com/watch?feature=player_embedded&v=R6muzG-B7-o

- Ladybirds http://www.nottinghamshirewildlife.org/images/uploads/Animal_Facts_-_LADYBIRDS.pdf

- Identify a butterfly http://butterfly-conservation.org/50/identify-a-butterfly.html

- Field Studies Council laminated Bee ID Guide http://www.field-studies-council.org/publications/pubs/guide-to-bees-of-britain.aspx

- Field Studies Council laminated Ladybird ID Guide http://www.field-studies-council.org/publications/pubs/guide-to-ladybirds-of-the-british-isles.aspx

- Field Studies Council laminated Ladybird Larvae ID Guide http://www.field-studies-council.org/publications/pubs/ladybird-larvae.aspx

- Field Studies Council laminated Butterfly ID guide http://www.field-studies-council.org/publications/pubs/butterflies-of-britain-british-butterfly-identification-guide.aspx

- Wildlife Watch Spotting Sheets - http://www.wildlifewatch.org.uk/spotting-sheets

- RHS Perfect for Pollinators - Wildflowers http://www.rhs.org.uk/Gardening/Sustainable-gardening/pdfs/20120702_PerfectForPollinators-WildflowerList_V1

- The Ladybird Survey aims to facilitate the recording of all the UK's ladybirds. On this website you will find lots of information to help you find and identify species. www.ladybird-survey.org

- A good website for ladybirds and Notts invertebrates in general www.eakringbirds.com
- Harlequin Ladybird Survey http://www.harlequin-survey.org.
- Butterfly Conservation – Gardening for Butterflies and Moths - http://butterfly-conservation.org/files/habitat-gardening-for-butterflies-and-moths.pdf

- Bumble Bees - http://bumblebeeconservation.org

- Bee Keepers Association http://www.bbka.org.uk

Private Gardens

Constraints

Varying levels of interest of individual gardeners and difficulty of communicating ideas to homes. Plus physical constraints such as shading by large trees, solid boundaries, disturbance and fragmentation by roads

What we mean by gardens

An enclosed piece of land around a private property

Data/History

Responses to the 2012 gardens survey (78 Participants) show that there is a significant garden resource within the Park Estate, with the majority of gardens considered medium or large in size (62%). Many include mature trees (81%) and / or woodland and shrubbery (73%), and a quarter contain a pond. However, around 25% of gardens are covered over more than half their area by decking, gravel or paving, and 35% are covered over more than half their area by lawn. 59% of gardeners compost, with 44% using a heap rather than a closed bin.

Nearly a third of gardens have a log or leaf pile (31%), water butt (33%) or nest box (31%). However, more than two thirds of gardeners feed the birds (69%).

Goal

Improve garden biodiversity: Gardens are increasingly important havens for wildlife as habitats in the wider countryside shrink and fragment, and climate change takes its toll. Up to a quarter of a city's area can be made up of gardens, so although each garden on its own may be small, together they form a patchwork linking urban green spaces with nature reserves and the wider countryside.

The essentials of successful wildlife gardening are based on four things; **trees, deadwood, water and variety of planting**. Any one of these features will encourage wildlife to your garden. The more of these features your garden contains, the greater the number and variety of animal species using the garden will be.

Possible Actions

- You can help wildlife by providing **dead wood** within your garden by introducing a **log pile**. Alternatively when a limb falls off a tree in your garden leave it in a corner. Many species of lichens, mosses and fungi depend for part or all of their life cycle on the presence of dead wood. Deadwood can also provide valuable sheltering and hunting habitat for frogs, toads. Small invertebrates including spiders and beetles living in deadwood are also an importance food source for birds especially when they are feeding young.

- Help to **enable small mammal such as hedgehogs to travel between gardens** (See Mammals Strand).
- Install a **garden pond** (See Amphibians & Ponds Strand).
- Try **insect friendly planting** in flower beds with a variety of different species to attract bees, butterflies, ladybirds, hoverflies and many more insects. (See Bees, Butterflies and Ladybirds Strand)
- **Create your own bug hotel** (see link in 'Useful Information')
- **Recycle water by installing a water butt, which can be used to water plants or top up ponds.**
- **Create your own small wildflower meadow** - See below -:The Wildlife Garden Project - How to sow a wildflower meadow
- **Put off the autumn cutback of perennials until early spring**. Wildlife will love the seed-heads and hiding places, and you will benefit from structure they add to the garden over the winter months.
- **Supplementary bird feeding** (See Birds Strand)
- **Bird nesting Boxes** (See Birds Strand)
- Organise an **Open Gardens** event to show how wildlife gardening doesn't have to mean untidy.
- Take part in the **Gardening for Wildlife Census 2012/2013** as part of The Nottinghamshire Wildlife Trusts wildlife on your doorstep campaign. http://www.nottinghamshirewildlife.org/news/item/new-garden-wildlife-census
- Encourage gardeners to adopt a more **organic approach** with minimal use of pesticides.
- Encourage the use of **peat free** products. There are many alternatives to this irreplaceable natural resource which are just as good.
- **An informal style of gardening** may be attractive for some gardens with its wide range of plant species which give a long flowering season and good cover for insects, birds, amphibians and small mammal (especially hedgehogs).
- **Hold an evening moth trapping event** in a suitable large garden to identify night flying moths in The Park. Contact Nottinghamshire Wildlife Trust for further details.

We do also like the idea of begin able to provide a marker or logo for people to identify areas managed for wildlife. These could be identical to those proposed for public areas and would show peoples support for the project.

Useful Information

- How to make a wildlife garden –Chris Baines http://www.amazon.co.uk/Make-Wildlife-Garden-Chris-Baines/dp/0711217114

- Though provoking book on variety of wildlife gardening topics Titled 'No Nettles Required: the Truth about Wildlife Gardening' - http://www.amazon.co.uk/No-Nettles-Required-Reassuring-Gardening/dp/1905811144#reader_1905811144

- Make room for wildlife…and feel the benefits - http://www.nottinghamshirewildlife.org/docs/UKO_finalwildlife_gardening_2011_pdf_95331.pdf

- Urban Wildlife Havens - http://www.nottinghamshirewildlife.org/docs/Notts_Wildlife_Garden2_AW.pdf

- Bug Hotel - The Wildlife Garden Project - A guide to building a bug hotel! http://www.youtube.com/watch?feature=player_embedded&v=3hrjD089bTg

- The Wildlife Garden Project - How to sow a wildflower meadow http://www.youtube.com/watch?feature=player_embedded&v=U8aVj7Tp3HY

- Very useful website http://www.pondconservation.org.uk provides lots of advice and information.

- Deadwood Information http://www.norfolkwildlifetrust.org.uk/Documents/Wildlife-Leaflets/NC_deadwood_leaflet.pdf

Public Green Space

Constraints

The areas are typically the responsibility of NPEL and changes to long term management will of course be subject to concerns of funding, maintenance, safety, community appeal. Also any changes should enhance their functionality.

Goal

To provide a greater diversity of wildlife habitat within the public green spaces of The Park Estate.

Possible Actions

- The Paddock
- Bulb and shrub planting along Duke William Mount
- Wild flower meadow area on Lincoln Circus
- Trees on Lincoln Circus
- Planting beneath street trees
- Nest Boxes on larger trees in public spaces
- Possible ponds
- Crown lifting and shrub planting at the back of the Bowls Pavilion inc possible Tawny Owl box
- Area at the back of the Squash Club

The Paddock

We understand that this area is presently owned by Notts LTA but if in the future this was sold or leased to NPEL it would provide a number of opportunities as a public open space. No survey of this area has been conducted however the following was observed.

- The trees in this are dominated by sycamore and may benefit from some thinning.
- The ivy growing up many of the trees acts as important sheltering habitat for birds, insects and potentially bats and we would recommend that this should be retained.

- The area may support the creation of a wildflower meadow. The grassed area appears regularly mown and therefore species diversity is not known. We would recommend that parts of this area should not be mown during spring / summer and a botanical survey should be undertaken to assess the wildflower /grass species present. A path could be mown around the area to create a meadow walk and subject to survey findings, potential enhancements made.
- The bramble areas should be retained to provide sheltering habitat for small mammals, insects and nesting habitat for birds.
- Possibility of pond creation (See Amphibian & Ponds Strand)
- This area could be a valuable educational resource for children and adults.

Bulb and shrub planting along Duke William Mount

Climbing plants

We recommend the incorporation of shrubs & climbing plants along the west fence boundary to soften boundary treatments. The following species would be suitable for training along the boundary and will provide nectar and berry resources for insects and birds and will also provide additional shelter over the winter.

- **Guelder Rose** (Viburnum opulus)
- **Cotoneaster** – non-native but does have value for wildlife. Could be trained against boundaries.
- **Pyracantha** (often called firethorn) – another non-native but also has value for wildlife.
- **Sweet-briar** (Rosa rubiginosa)
- **Burnet Rose** (Rosa spinosissima)

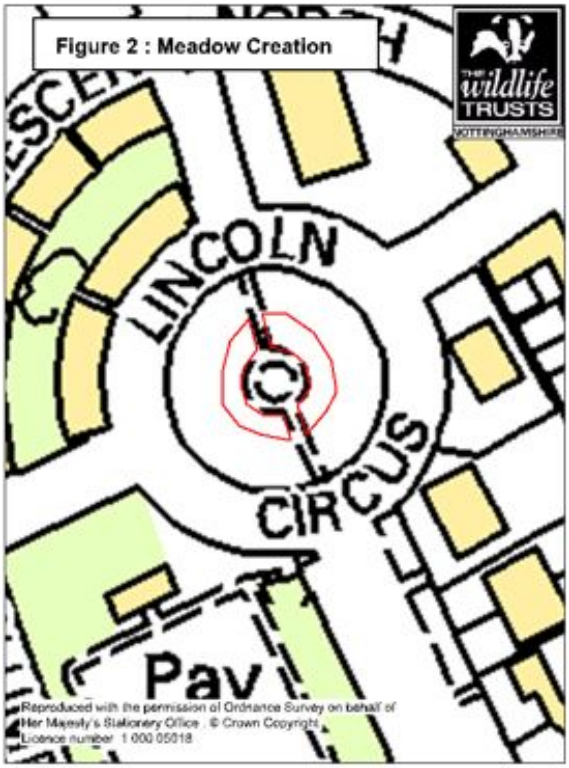
Native bulbs

The use of native bulb planting can bring a show of colour in the spring. We recommend using the following species.

- **English Bluebell** (*Hyacinthoides non-scripta*)
- **Snowdrop** (*Galanthus nivalis)*
- **Star of Bethlehem** (*Ornithogalum umbellatum*) AUTUMN PLANTING
- **Wild cyclamen** (*Cyclamen hederifolium*) AUTUMN PLANTING
- **Wild Daffodil** (*Narcissus pseudonarcissus*) AUTUMN PLANTING
- **Ransoms/Wild Garlic** (*Allium ursinum*) AUTUMN PLANTING

Wild flower meadow area on Lincoln Circus

Creation of a wild flower area is proposed on Lincoln Circus. On our site visit it was suggested that this area is more open and will provide more light than Newcastle Circus. We recommend creating a trial area either sides of the path or just one side (see Figure 2). The example of both areas is approximately 390 sq metres, We suggest using perennial flower species that will flower every year rather than annual flower species that will require reseeding every one to two years. Stephen Hyde suggested using seed produced by Pictorial Meadows Ltd and we are happy for seed mixes from Pictorial Meadows Perennial Mixes to be used and would recommend the following the methodology below.



1. Community liaison: Local Residents should be informed regarding the plans to create habitat on the site and temporary signs should be erected next to the area to explain exactly what is happening, why and what to expect over the coming months.

2. Removal of grass: Removal the grass either by the use of systemic herbicide such as glyco-phosphate (Roundup) one week after cutting by a suitably qualified person and steps should be taken to ensure the health and safety of residents. Alternatively the area could be turf stripped to a depth of approx 5cm. This should be done in July or August.

3. Soil Preparation: If using a systemic herbicide, to prevent the germination of any existing dormant seed-bank, the disturbance of the soil should be kept to a minimum. There is no need to remove the dead turves. Generally the species found in wildflower meadows are adapted to colonise the soil found in the gaps of dead vegetation so the preparation of a seed bed is unnecessary. Soil disturbance can create a seed bed for annual weeds that will compete with the flowers.

   If soil stripping, the whole area should then be raked over to create a raised tilth on the surface.

4. Seed dispersal:

Seeds should be sprinkled over the area at a sowing rate of 1-2g per square metre. It is a good idea to mix the seed with some sand to enable a roughly even distribution of seed. This is often a really good activity to get local school children involved in. The area should then be raked in and walked over or rolled to ensure good contact between the seed and the soil and prevent birds taking the seed.

5. Maintenance:

Ongoing management of the site should involve an **annual cut in September when the arisings (vegetation) should be removed** from the site. This will keep the nutrient levels in the soil low and therefore promote wildflower species to thrive. If arisings are not removed nutrient levels will increase and encourage weed species to dominate such as dock and dandelion.

Trees on Lincoln Circus

To create more interesting features and create more pollen, nectar and seed sources for insects and birds we would recommend planting climbing plants for growing up some of the trees such as Wild Hop (*Humulus lupulus*), Honeysucke (*Lonicera periclymenum*) or Wild Clemitis (*Clematis vitalba*). This will also provide an additional flower and berry source which is attractive to both wildlife and the local community.

Planting beneath street trees

We have noticed that there has been some bulb planting (daffodils) underneath street trees and would recommend further planting of native spring flowering bulbs including the species previously mentioned including.

- **English Bluebell** (Hyacinthoides non-scripta)
- **Snowdrop** (*Galanthus nivalis)*
- **Star of Bethlehem** (*Ornithogalum umbellatum*)
- **Wild cyclamen** (*Cyclamen hederifolium*)
- **Wild Daffodil** (*Narcissus pseudonarcissus*)

Nest Boxes on larger trees in public spaces

There a good opportunity to provide nesting boxes for birds in the public spaces. To increase the bird nesting potential a number of 'Tit' type boxes with a 32mm hole could be attached to the trees for use by a number of species including Blue, Great and Coal Tit, Nuthatch. We recommend Schwegler bird boxes are made of a unique wood-concrete material, an entirely natural product consisting of 75% wood and various additives to compensate for climatic changes. This provides insulation against temperature fluctuations, allows air to pass through the walls, prevents the formation of condensation and means that they will last at least 20–25 years. Boxes should face north-east to avoid wet and windy weather from west and preferably not in direct sunlight (see Birds Strand).

Possible pond in the grounds of the Estate Office at 7a Lenton Road

We have considered a wildlife pond in the public space at Peveral Garden but feel that that this is not appropriate due to the potential problems of disturbance and possible health and safety issues.

A more suitable area for a wildlife pond would be within the Paddock area if this area comes into your management in the future. We can provide non financial help and support in creating a pond however a very useful website http://www.pondconservation.org.uk provides lots of advice and information (Also see Amphibian & Ponds Strand)

Area at the back of the Bowls Pavillion

This area is rather dark and would benefit from some of the trees within it being crown lifted (removal of the lower branches to a given height) to allow more light in.

Shrub planting would improve the structural diversity of this small woodland area and should include the following species:

- **Holly** (*ilex aquifolium*)
- **Wild Privett** (*Ligustrum vulgare*)
- **Common Dogwood** (*cornus sanguinea*)

Some ivy could be removed from the ground in this area although ivy that is growing on trees provides a valuable habitat for birds such as robins and wrens and provides roosting areas for bats. As ivy establishes on trees the tree bark grows in response to the microclimate that the ivy develops over time i.e. the tree and its bark becomes used to the protection that the ivy provides from hot sun / winds and low temperatures and cold winds. If well established ivy is pulled from trees it shocks the tree, exposing it to heat and cold that it is not accustomed to. Pulling ivy also leaves holes in the bark, where the ivy tendrils have anchored themselves, which allows pathogens such as fungal spores under the bark. **We would therefore recommend that ivy cover is left on trees**. It has been stated that tawny owls use this wooded area so **installing a Tawny Owl nest box** in the trees surrounding the bowls pavilion would provide a nesting opportunity. We do have a large nest box that we could offer free of charge that could be attached to a large tree in this area.

Area at the back of the Squash Club

We recommend that a spring / summer botanical survey should be undertaken to assess the species present.

We suspect that the soils in this area are acidic and therefore (subject to the results of the above survey) we recommend that some shrub under-planting towards the back with species such as Broom *(Cytisus scoparius)* and Gorse *(Ulex europaeus).*

Along the front of this area native bulb planting can bring a show of colour in the spring. Again subject to results of the above survey) we recommend using the following species.

- English Bluebell (Hyacinthoides non-scripta)
- Snowdrop (*Galanthus nivalis)*
- Wild daffodil (*Narcissus pseudonarcissus)*

Indicative Costs

- Schwegler tit bird boxes http://www.wildcareshop.com/hole-front-bird-box.html **£25 each**
- Shrubs and bulbs Various (see Naturescape website below for costs)
- Ponds (see Amphibians & Ponds Strand)
- Surveys would cost in the region of £600 - £1000 and we would recommend EMEC Ecology (subsidiary of the Wildlife Trust) www.emec-ecology.co.uk

Larger works such as tree removal and meadow creation are likely to require contractor assistance. The costs of which can run into several thousands. If project like this were to be pursued the Wildlife Trust would offer its support to cost up works into a project budget. Typically costs could be several thousands of pounds.

Useful Information

- We recommend that all plant stock used should be of native genetic origin and ideally of local provenance except for those non-native species of wildlife value identified by name. Naturescape Wildflower Farm can supply all of the above and can be contacted at Tel: 01949 860 592 or Web: www.naturescape.co.uk

- Pictorial Meadows Ltd, Manor Oaks Farmhouse, 389 Manor Lane, Sheffield S2 1UL Phone: (0114) 267 7635 http://www.pictorialmeadows.co.uk/perennial-mixes

- Notts County Council Tree & Shrub Nursery : Skegby Tree & Shrub Nursery, Brooke Farm, Main St, Linby, Notts NG15 8AE Tel 0115 9632638

- Select Plants (Trees & Shrubs) Select Plants Ltd. New Farm , Waltham Road, Harby Melton Mowbray Leicestershire LE14 4DBUnited Kingdom 0843 259 0361 http://www.selectplantsuk.com

Trees

What we mean by a tree

A tree is a woody plant with an elongated stem, or trunk, supporting leaves or branches. It may be useful to distinguish between trees in the public open space, trees in areas such as the squash & bowls club and trees within private gardens.

Constraints

There are limited opportunities for wildlife enhancement to street trees / trees in public open spaces due to health and safety implications i.e. diseased / dead tree limbs may need to be removed immediately.

Data/History

The STREET TREE REPLANTING STRATEGY May 2007, produced by Whitton Associates Landscape Architects, provides a comprehensive document on the trees within The Park Estate with the main tree species in the public space described on pages 18-20. The report also states that there were 650 trees in the public open space (2006) with 34 different species and about six further cultivars. There is not really a single dominant species, the most numerous species are horse chestnut (Aesculus hippocastanum, 119 trees), sycamore (Acer pseudoplatanus, 103 trees), common lime (Tilia x europaea, 81 trees), Norway maple (Acer platanoides, 75 trees) and London plane (Platanus x hispanica, 72 trees). There are only a few native tree species – some beech and ash and a few English oak, with more recently-planted field maple, rowan and whitebeam.

The report was compiled in 2007 and since then there has been some felling (believed to be diseased Horse Chestnuts) and some planting – but not at such substantial numbers to have significantly altered the data. The report recommended a substantial (200+) tree planting programme however resources to date have not been available to plant trees at anything like the recommended numbers.

Tree species on private property within the estate (mostly private gardens) has some similarity to the trees planted in the public realm, but also reflects tree planting fashions associated with the ages of the properties and gardens concerned. This serves to increase the diversity of tree species in the area over and above those listed as being in the public realm.

Goal

To maintain healthy tree resource and provide more wildlife friendly habitat within trees

Possible Actions

- From a biodiversity perspective we would recommend any **new tree replanting is from native species**. E.g. Native oak has over 280 associated insects whereas sycamore

which is actually non-native only has 15. London plane which is also non-native and only has 1 insect species but is very tolerant of atmospheric pollution and root compaction, and for this reason it is a popular urban roadside tree. We recommend trees that naturally occur in sandy acidic soils which would grow well in the park and include include Oak (*Quercus robur*), Silver Birch (*Betula pendula*), Rowan (*Sorbus aucuparia*), Crab apple (*Malus sylvestris*) and Sweet chestnut (*Castanea sativa*).

- Trees that produce good berry crops will also be favoured such as rowan, Holly, Yew or perhaps Spindle.

- **Diseased / dead tree limbs and holes in trees** are important for wildlife and in particular for sheltering insects, bats and nesting opportunities for birds and as shelter. Wherever possible retain these features within private gardens.

- If any **de-limbing or felling of trees** has to be carried out, it would be beneficial to fungi and wood boring beetles to **retain some logs as single stems or in log piles**, in areas where they would not appear unsightly. Try not to be over tidy unless trees are a potential hazard. If possible leave a proportion of dead wood both standing and fallen because these will develop distinct invertebrate populations but avoid impacting on the ground layer where there is known botanical interest. Standing dead wood provides excellent nesting and foraging habitat for woodpeckers and nuthatch.

- Erect nest boxes on larger trees in public spaces (See public open space strand)

- A range of **children's activities can be delivered that are linked to trees, though typically in a woodland setting** it may be possible to adapt a suitable session.

- Possible **crown lifting** (removal of the lower branches to a given height) to allow more light in of some of the trees at the back of the bowls pavilion (see public open space strand)

- **Climbing plants** for growing up some of the trees in Lincoln Circus to increase visual interest such as Wild Hop (*Humulus lupulus*), Honeysucke (*Lonicera periclymenum*) or Wild Clemitis (*Clematis vitalba*). This will also provide an increased nectar source for bees as well as attractive flowers for visitors.

- Raise awareness of the trees in The Park Estate and consider repeating the **tree walk**, continued articles in park news and highlighting improvements with the project logo or temporary interpretation signs.

Indicative Costs

- Much of this work should not in fact alter existing maintenance costs; thought additional crown lifting etc may incur additional costs. These can be discussed with you preferred contractor.
- Education activities are charged at £45 per half day for community groups

Useful Information / Legal Implications:

- The Value of Different Tree Species for Invertebrates and Lichens - http://www.countrysideinfo.co.uk/woodland_manage/tree_value.htm

Bats

Constraints

Bats are at times elusive and have a strict legal status and they can also suffer from a gruesome or spooky reputation. All combined this means that Bats can be either easy to miss or perceived as undesirable by property owners. This is a real shame as they are undoubtedly inspirational creatures.

In terms of this report there is a lack of records and as they can be a difficult species group to survey we have to work to some general assumptions.

What we mean by bats:

Bats are mammals of the order Chiroptera and are the only mammals capable of true and sustained flight. They are nocturnal and navigate and hunt using a system of sonar called echolocation. Bats are most easily seen at dusk and at night in spring and summer, flying in search of insects. While bats hibernate during the winter months they may occasionally be seen when they leave their place of hibernation to hunt. Bats roost in all kinds of buildings, in caves, in hollow trees and sometimes behind tree bark where it has started to peel away. They can be seen emerging from these roosts in the evening returning later. Individual roosts are not usually occupied throughout the year, as bat colonies frequently move, although they usually return to a particular site at the same time each year. Bats prefer clean, draught-free buildings, disliking dust and cobwebs.

Data/History

Past records

The Nottinghamshire bat group have only two bat records from within the Park boundary. A dead bat on a lawn on Park Valley (1994) was identified as a pipistrelle and the other was a common pipistrelle recorded by a bat detector on Clumber Crescent (2009). The dead bat may indicate a roost nearby as it was a summer record made at the time that young bats are out on their first flights. There is a common pipistrelle roost in an office building between the Park and Maid Marion Way which has been active for many years. I suspect that the majority of these bats would spend the majority of their foraging time over the mature gardens of the Park. A Daubenton's bat was found on the ground three years ago close to Standard Hill. This species is usually associated with water and often roosts in bridges and tunnels but will also use holes in trees. This record may indicate a tree roost close by.

How bats use the Park

The small number of records makes a full assessment impossible but the following is likely. Many of the buildings in the Park have features which would offer potential roosting sites for nursery colonies of pipistrelle bats. They favour soffits at gable ends, hanging tiles or timber cladding, small roof voids with eaves access and even modern flat roofs. The potential for several roost sites on the park is therefore quite high. Pipistrelle bats will generally forage within 1 km of their roost sites so any bats seen hunting in Park gardens will likely be from a roost nearby. The earlier in the evening the bats are seen the closer the roost will be. There are also many large roof spaces which could potentially provide roost sites for other species in particularly the brown long-eared bat which has been recorded within 1km of the edge of the Park. It is generally a woodland species but the mature gardens and trees found in the park do provide a woodland type habitat. Unfortunately brown long-eared bats are not easy to locate with bat detectors as they have a very quiet call. Roosts are usually first discovered when droppings are found within a roof space (*n.b.* roof surveys should only be carried out by suitably licensed ecologists)

The tunnel in the sandstone which may initially appear to be excellent bat habitat is unlikely to be used as a roost but may offer some hunting opportunities. Surveys over the years in several of the Nottingham Caves have failed to find any evidence of bat use at all. The loose texture of the cave walls and the generally dry atmosphere are the main factors preventing bat use. The tunnel may however be a good area for foraging bats.

Goals

To improve foraging and roosting habitats in for bats and to celebrate the presence of bats with residents.

Possible Actions

The Park is already offering some good foraging habitat in the gardens and the potential for roosts in houses is high especially for pipistrelle bats. Bat boxes are often used to improve roosting opportunities but in this case there are already plenty of suitable features in buildings so the chance of use by bats would be quite low. However bat boxes may be more successful

if carefully positioned on trees or buildings as part of a wider and, if successful could be a feature pointed out to interested residents and visitors.

- The most effective improvement that could be made to help bats would be to encourage home owners to make their gardens more bat friendly**. Choosing plants which encourage night flying insects** will greatly improve the foraging habitat. A list of suitable plants is available in the Bat Conservation Trust leaflet '**Encouraging Bats**' (see below). This could be delivered through a community gardening club and local communications.

- **Installing ponds or bog gardens** will also provide an insect rich habitat ideal for foraging bats. This could be delivered through a community gardening club and local communications. (see Amphibian & Ponds Strand for ponds & a fact sheet is available from Nottinghamshire Wildlife Trust on request)

- Insects are essential for bats so try **minimising pesticide use** in gardens and public spaces. This could be delivered through a community gardening club and local communications.

- **Investigate locations for potential bat box schemes**. Seek further advice from Nottinghamshire Wildlife Trust.

- **Make your own bat box** (see suitable link below)

- **Bat talk** by local expert to increase knowledge of residents, respond to concerns that may arise and inspire people to take some small actions at home.

- **Bat activities for families** – It may be possible to deliver a bat activity workshop, sometimes in partnership with the Nottinghamshire Bat Group. This includes a powerpoint presentation, information and activities for children. This session can be delivered for families at a cost of £100 for a half day.

- **Nocturnal Animal Session –** new sessions aimed at Key stage one level children who cover it as part of the curriculum. This session can be delivered for families at a cost of £100 for a half day.

Indicative Costs

- Bat friendly plants – various costs

- Bat box to purchase – Schwegler Bat Boxes (pictured) £30 to £60 each

- **Bat box locations** – Ideally this would require time to visit potential sites with a conservation officer – cost £250 per day, though this can be built into a visit to consider.

- **Bat talk** – Would cost in the region of £50 to £250.

Legal Implications

All species of bat and their breeding sites or resting places (roosts) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act 1981. It is an offence for anyone intentionally to kill, injure or handle a bat, to possess a bat (whether live or dead), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

It is therefore important that care is taken with any work to or near the roofs of properties and if any bat/s be found under any other aperture, **work must stop immediately.** If bat/s do not voluntarily fly out, the aperture is to be carefully covered over to provide protection from the elements whilst leaving a small gap for the bat to escape should it so desire**. The Bat Conservation Trust should be contacted immediately on (0845) 1300228** for further advice and they will provide a licensed bat worker to evaluate the situation and give advice

Useful Information

- Nottinghamshire Bat Group http://www.nottsbatgroup.org.uk/ Contact Michael Walker at info@nottsbatgroup.org.uk : There is also the possibility of Michael offering a bat talk although he would need to be contacted directly.

- Bat Conservation Trust http://www.bats.org.uk/

- http://www.nottinghamshirewildlife.org/images/uploads/Animal_Facts_-_BATS.pdf

- http://www.youtube.com/watch?feature=player_embedded&v=aWO-59RJzu8 (YouTube clip of bats emerging from a house)

- Bat Conservation Trust leaflet 'Encouraging Bats' available from http://www.bats.org.uk/publications_detail.php/231/encouraging_bats

- Bat Boxes - www.**bats**.org.uk/pages/**bat_boxes**.html

- How to make your own bat box http://www.bats.org.uk/publications_download.php/235/Howtomakeabatbox.pdf

Other Mammals

Constraints

Lack of ease of movement through gardens due to walls / close boarded fencing, little undisturbed habitat, strong predation, lack of reliable food sources or breeding territories.

What we mean by other mammals

Mammals are a warm-blooded vertebrate animal of a class that is distinguished by the possession of hair or fur, females that secrete milk for the nourishment of the young, and (typically) the birth of live young. We have separated them in this report from Bats which care of course also mammals.

Data/History

No actual records in the Park Estate from the Nottinghamshire Biological Records Centre or County Mammal Recorder although we would suspect the species discussed may be present:

Hedgehogs are mainly active at dusk and at night and are normally only seen from May until October. They hibernate during winter because there is little food available during that time, hiding under logs and piles of leaves. Hedgehogs are normally solitary creatures, but females with young may be seen in summer. Hedgehogs can run surprisingly quickly if frightened. They will also roll up into a ball when there is danger; this presents the sharp spines to any attacking animal and is normally a very good defence. Hedghogs will forage up 1km (0.62 miles) and can live up to 10 years.

Traditionally most foxes lived in rural areas, in a series of underground tunnels known as dens. However, in recent times **urban foxes** have become more and more common. This is likely to be because of a lack of food in the countryside and an increasing tendency to scavenge – mostly from rubbish bins and food such as take-away meals discarded on the street. A single fox's territory can range from 2km2 in urban areas to 40km2 in the countryside.

The **wood mouse** is very active at night, but also at dusk and dawn, running, bounding and climbing from place to place and venturing where other small mammals would rarely go. It is at these times that you may see them foraging for food.

Both **weasel** and **stoat** have been recorded in the grounds of Nottingham Castle. Both are carnivorous and voracious hunters. The stoats chief prey is rabbits which will not be common in the Park but weasels take smaller prey so would be more likely. Both are secretive and fast moving so both would be a rare sight.

Also present is likely to be **House Mouse** / **Grey Squirrel / Brown Rat** / **Common Shrew.**

Goal

Improve habitat for key mammal species.

Possible Actions

Many of the previous mentioned improvements will enhance conditions for mammal, others to consider include:

- **Make a mammal house** for hedgehogs (see below)

- Help to enable **small mammal such as hedgehogs to travel between gardens** with close boarded fencing we recommend raising the bottom of individual boards by 3-10 cm (as suggested in the Boundary Wall Article by GS) or by cutting a hole in the corner a panel in the discrete corner.

- **Try not to use slug pellets** which can kill small mammals. Instead try some of following.
    1. Improve habitat for frogs (See Amphibian Strand), thrushes and hedgehogs which all eat slugs and snails.
    2. Create beers traps with plastic cups sunk into the ground. The smell attracts the slugs which fall into the cups and drown.
    3. Place eggshells or sand around plants as slugs/snails do not like moving over these surfaces.

- **Plant a native shrubs** including hawthorn (Crataegus monogyna), blackthorn (Prunus spinosa), field maple (Acer campestre) or hazel (Corylus avellana) to create cover for small mammals.
- **Education exercises such as exercises to examine owl pellets, where an attempt is made to reconstruct and identify mammal species from the bones contained within the pellet. Will engage people well with the interrelations between species.**

Indicative Costs

The range of costs will vary with projects.

Useful Information

How to make a mammal home
http://www.nottinghamshirewildlife.org/docs/supporters_mammal_homes.pdf

The Wildlife Garden Project - How to help hedgehogs in your garden
http://www.youtube.com/watch?feature=player_embedded&v=ZMVWPvhFrpw#!

Hedgehog Fact - http://www.nottinghamshirewildlife.org/images/uploads/Animal_Facts_-_HEDGEHOG.pdf

Hedgehog Rescue http://www.hedgehogrescue.org/morehoginfo.html

Urban Foxes - http://www.nottinghamshirewildlife.org/images/uploads/Animal_Facts_-_FOX.pdf

Wood Mouse http://www.nottinghamshirewildlife.org/images/uploads/Animal_Facts_-_WOOD_MOUSE.pdf

The Mammal Society - http://www.mammal.org.uk

Community Engagement

Constraints

Busy and active community
Time
Resources
Risks

What we mean by community engagement

Community Engagement is about getting people involved. It can be described as a process of developing and maintaining relationships with people in a community so that people are interested in what we are doing, that they have a say in what we do and how we do it and that they get involved in and participate in practical ways to help deliver things that benefit our community.

There are several models of reaching your community and propose activities that will involve people, which will of course lead to stronger community engagement, but for this to work well there is a series of planning stages that would be good to go through first.

Why consider community engagement? We work on the understanding that we have a positive set of changes that we would like the community to consider and that their wider involvement will ensure the changes fit the community's needs, that delivery will be good quality and we'll have help to deliver it. It is widely accepted that a service that engages the community it serves will be of a higher quality and be more relevant to the people it serves.

Current Situation

NPRA is the Nottingham Park Residents' Association, is the organization most concerned with community engagement, with membership open to all residents of the Park Estate. NPRA publishes the magazine Park News, and operates the website www.parknews.co.uk. These are available to all residents. The Association organizes social events talks, walks, and now regular farmers markets. The NPRA membership card – the Park Card entitles members to a variety of discounts on services in Nottingham. NPRA also makes representations on behalf of residents to other organizations, like Nottingham Park Estate Ltd (the resident run company that manages the estate), Nottingham City Council and even, on occasion, the government.

In 2012 The NPRA decided that the Park Estate would benefit from more emphasis and an enhancement of wild life in the Park and established a biodiversity working group that has come to be known as Wildlife in the Park which has implemented a number of l initiatives and to guide their way to the next stage has commissioned this report
NPRA has sought and will continue to involve some of the sports and social Clubs, set out below as appropriate with some success so far

- Nottingham Squash and Racquets Club
- The Park Tennis club
- Queen Anne's Bowling Green
- Nottingham Castle Lawn Tennis Club
- The Park Club

- The Park Toddlers Group

Overall Goal

To secure substantial and meaningful community engagement with the NPRA's biodiversity project/Wildlife in the Park to enhance wildlife in the Park through various forms of wildlife related community activity, contributing to the strength of community and wildlife outcome

The who to engage
All ages, all areas of the Park with some bias towards children and young people, including communities neighbouring the Park and a Nottinghamshire site 'twinned' with the project

Engagement approach
Engage people in key volunteering roles, tasking them to lead on specific aspects of the project and introduce people with compatible interests through activities
Asking views of progress through infrequent celebrations and get together, both with existing and new people where appropriate.

Strategic dimension
These will flow from the earlier strand sections of our approach and the community wide activities specified below which will involve and engage a variety of people and volunteers.

Wider Implementation plan and activities
At the same time there are other wider areas that are starting to move forward and others areas for consideration

Current Engagement activities or areas moving forward

- Children's Wildlife club
- Photo competition
- Wildlife web site
- National Bird Count
- National Butterfly Count

Other possible engagement activities

Develop Paddock as a wildlife area
Gardening Club
Garden Network
Ask for volunteer to help install items on public open spaces
Build a working relationship with the Wollaton Watch Club to support children's activities.
Twinning with a Friends of Group or suitable Nottinghamshire wildlife site
Joining the Nottingham Friends of Group Forum
Provide training to volunteers (safety, Safeguarding, etc)
Other Competition – pond creation, photos
Social events (walks, tours, talks)
Community events

It is important in all we do to gather feedback and record it, check against expectations and communicate and report to all concerned via the website newsletters and other means

Indicative Costs

There will be small costs associated with promotion, materials for activities, volunteer expenses and perhaps contribution to existing costs such as Park News. We recommend budgeting for the following:

- Children's Wildlife Club £ 500
- Photo competition £ 200
- Wildlife web site £ tbc

Legal Implications

Health and Safety at Work etc Act 1974 does not specifically mention volunteers, but Volunteering Involving Organisations are expected to adhere to the same standards, demonstrating a duty of care to people involved and persons coming into contact with their activities.

If working with children then safeguarding them will need to be considered. NPRA may need a policy in place and may need to take advice on whether they need to engage with the Disclosure and Barring Service.

Public liability insurance is not a legal requirement but is strongly recommended, we also recommend that you check you existing policies will cover any new types of activity.

Any policies need only be appropriate for what you intend to deliver and so can grow over time if need be. They do not need to be as comprehensive as the wildlife trust's existing policies however we would be happy to provide copies of ours as examples.

Advice on policies and structure on these issues can be obtained either from Nottinghamshire Wildlife Trust's education and community team or indeed the group development team at NCVS http://www.nottinghamcvs.co.uk/

As a minimum we recommend that NPRA examine what it has in place for:

- Health and Safety Policy
- Safeguarding: Children and Vulnerable adults

Useful Information

NCVS' Group development helpdesk can provide free impartial advice to groups, Helpdesk is open weekdays 10am – 1pm. Call 0115 934 9548, email **helpdesk@nottinghamcvs.co.uk**

Volunteering England provide excellent online resources which can be accessed at http://www.volunteering.org.uk/

Securing Resources

NPRA and partners, principally NPEL, will need to secure sufficient resources of time and money in order to progress many of these recommendations. They will need to adopt a flexible approach to this as in some cases NPRA may be able to lead; in other it will need to be NPEL. In some scenarios a partnership may be appropriate. This section assumes that NPRA will assume the lead role unless the situation prevent them from doing so. This will change between funding sources and where the works are due to take place.

Here we shall only concern ourselves with how NPRA might secure financial resources as without sufficient funds little tangible progress can be made. Essentially securing resources is in large part about fundraising which is simply 'raising money by asking for it'.

We outline:

- Types of Funding
- Potential funding sources
- Status and Constraints
- Recommendations

Funding sources

Once you have agreed the plan of activities that you hope to complete, priced it up and, established your case as to why you require support, you can begin to explore how best to ask for funding. There are various sources of funding and each organisations and each project will have its own mix of sources.

Common sources that NPRA could consider are:

- Grants
- Grant Making Trusts
- Sponsorship
- Donations
- Trading

We can advise on all but here will focus on Grants and Grant Making Trusts. The others are areas that NPRA are likely to be more familiar with and have the skills to pursue. The bonus of those sources is that the money raised can be used flexibly, money raised though grants is normally inflexible and needs to be spent only on pre-agreed costs.

Potential funding sources

There are several key grant funders for this kind of work we have outlined a few in the table below to provide some idea of what be available:

Fund Name	Fund size	NPRA eligible?	Aims of Fund	Notes
BiG Lottery – Awards for All	£300 - £10,000	Yes – with some explanation of membership required	To help improve local communities and the lives of people most in need: - People have better chances in life - Stronger communities ↖ Improved rural and urban environments ↖ Healthier and more active people and communities.	Decision after 30 working days Will fund 100% of eligible project costs Project to be completed within 12 months.
Heritage Lottery Fund – Sharing Heritage	£3,000 - £10,000	Yes	Various, to support any heritage project which includes: - natural heritage - natural and designed landscapes Priority weighted to people learning about heritage.	Decision in 8 weeks Will fund 100% of eligible project costs
Heritage Lottery Fund – Our Heritage	£10,000 - £100,000	Yes	Various, to support any heritage project which includes: - natural heritage - natural and designed landscapes We fund projects that make a lasting difference for heritage, people and communities in the UK.	Assessment in 8 weeks then decision at next panel. Will fund 100% of eligible costs
Biffa Award – Recreation strand	Small grant - £250 - £10,000	Yes	Recreation strand will fund projects that improve green spaces, woodland walks, nature reserves. Biodiversity strand may be to focussed on regional conservation priorities.	Decision in about 9 weeks. Requires a 10% Third Party Contribution
WREN	Small grant - £2,000 to £15,000	Yes	Focus is on capital spend to invest in sites -would be appropriate to fund any work on publically accessible areas.	4 panels a year to review applications Requires a 10% Third Party Contribution

Grant Making Trusts

A Grant Making Trust (GMT) is an organisation, that manages an investment held in trust for charitable purposes. The income from this investment is paid out to charities or community groups for either general support of for specific project purposes. There may be some GMTs that would consider funding the project.

Their application processes are often very simple though the success rates are normally very low. There are various search tools that can be used to find suitable lists of Grant Making Trusts, NWT or Nottingham CVS will be able to assist with this. Applications range from a letter to using the funder's unique application form.

This form of fundraising is very speculative and can take a very long time to obtain with some funders taking more than six months to assess and respond to your application, Often many do not respond if you are unsuccessful and simply send a cheque if you are. For these reasons this form of funding should be used to support other core sources of funding and not relied upon too heavily.

Status and constraints

NPRA is established as an Unincorporated Association with a written constitution and a formal committee of elected local people. It does handle funds and manages a variety of affairs on behalf of residents. This structure is broadly acceptable to the majority if not all potential funders. There are however some aspects which NPRA will need to be aware of as they may need to be explained to any potential grant funders:

- Membership of NPRA – To satisfy funders an organisation's membership generally needs to be either open to everyone (the general public), or, any restrictions are of a reasonable and easily explainable nature. For the purposes of NPRA's functions the restrictions are sensible but they may need explanation to satisfy a funder. On balance we would advise that your membership restriction (being resident in The Park) would be acceptable to most funders as long as the beneficiaries or outcomes you aim for will ultimately benefit either the public, a particular group in need, a heritage asset or conservation outcome. As your plans are biodiversity focussed, have heritage links and include plans to benefit wider communities we think the membership restriction can be mitigated.

- Tenure – Grant funded activity that involves work on land will generally require the grant application to have security of tenure e.g. you would need to have control and/or ownership of the land. Funders essentially need to be confident that their investment is secure and that the organisation that they contract with can protect the investment or reimburse their investment should the situation change in the future. Given the nature of the publically accessible open spaces in The Park, and the relationship with NPEL we would be optimistic (but not certain) that most funders would understand the relationship between NPEL and NPRA, some may consider NPRA eligible for funding, others a partnership or just NPEL.

If this remains an issue for a funder and assuming that NPRA needs to be the lead organisation in an application then there may be two proven methods of solving the issue. 1- Agree a suitable contract between the landowner and grant applicant, or, 2 both organisations offer to sign up to the terms of grant, either of which may satisfy funders.

- Signatories - NPRA will need to demonstrate a minimum of 2 signatories for cheques and suitable safeguards in place to avoid monies being misused. Grant funders may ask to see your governing documents to check that you have suitable financial procedures in place. Obviously this is to minimise the fraudulent use of their funding. We assume that NPRA has suitable procedures in place.

- Individual benefit – Generally, funders will not support work that only benefits individuals; they will look to see wider public. Biodiversity focussed works can be an exception but only in quite extreme cases. However, funding can and has been, obtained to provide small investments in large numbers of private residences as long as it is part of a broader awareness raising or community involvement campaign. One such example was our lottery funded mini meadow campaign that gave out free packets of wildflower seeds for people to use at home. This was fundable as it was part of a campaign to raise awareness and instigate small actions that combat the loss of nature wildflower meadows. The campaign gave out over 30,000 packs of seeds across Nottinghamshire.

Funding glossary

Some common funding terms that it may be useful to understand:

In-Kind Match – you can attribute a financial value to your inputs to a project as 'match' funding, though it is described as 'in-kind'. This can include volunteer time, free use of a facility or some other such contribution made where cash doesn't change hands but an input of value is being made. In-kind can contribute to your overall match funding.

Match Funding – describes the mixture of funding that when combined pays for a single item. For example a project could have a cost of £100, consisting of a £75 grant matched with £25 of your own money. The amount of match required by funders varies; some will fund 100% of a project whilst others may only support 50% of the cost. You may wish to increase your own 'match' funding to make your applications more attractive to funders. This works by lowering the amount you are asking for but retaining the outputs – making you much better value for money. As NPRA may not score highly for benefitting the general public or people in particular need we would suggest that you may need to offer a higher, more attractive level of Match funding to some funders.

Reporting – Almost all grant funders will require some form of reporting from the project. They require varying degrees of detail, some requiring a narrative, record of progress against plan, financial breakdown, copies of all invoices and receipts and a prediction for the next period.

Restricted – money can only be spent on a pre-agreed item or purpose. The vast majority of grant funding is Restricted funding. It will need to be applied for spent to plan, monitored and reported against.

Third Party Contributions – some funders require the payment of a fee (typically 10% of your grant request) before a grant can be awarded. This fee needs to be paid by a third party organisation that won't uniquely benefit from the delivery of the project.

Unrestricted – money that can be spent on any item you choose. Money generated through sponsorship and gifts can fall into either category depending upon whether you make any promises as to what the money is for

Recommendation

We suggest that you review the potential actions, mixing them with any of your own and check that they meet the needs and aspirations of your partnership. Then to set a project proposal you could select from the lists your pick of the options to do this we suggest you, as a group, decide what your initial priorities will be perhaps for the first year or two.

Then, split them out into a project, marking down which you can deliver and resource and where you may need to secure additional resources or assistance. This then forms the basis of your project budget and highlights any need for fundraising. Once you have this specific need and request we can begin to make approaches to funders.

It is important that partners are able to be involved in this process and that your decisions are documented. This provides the evidence that your plans have the support of the community organisations, and by proxy, the community art large.

The Wildlife Trust will be glad to help with these stages and would be able to provide costs for involvement that you may wish to include within your project. The Wildlife Trust would also be willing to discuss then how it could assist with making approaches to funders, ranging from advice to potentially developing applications.

Appendix 1

Enabling residents to create and care for garden ponds

Pond Conservation http://www.pondconservation.org.uk provides lots of really helpful advice and information on creating ponds including:

- garden pond creation and management
- pond safety advice
- wildlife in your pond
- management through the seasons
- looking after your pond in cold weather

Our own advice includes the following:

The pond needs to be first lined with pond underlay felt from a garden centre, to protect the PVC/rubber liner, or old carpet underlay can be used.

The pond should then lined with a 0.5mm PVC or 1.0mm butyl rubber liner, available from good garden centres or aquatic centres. It is worth buying a good quality liner that will last many years.

When buying liner, you need a bigger size than the actual pond to allow for the depth – see the formula below. The centre of the pond should be at least 0.75m deep to prevent it freezing in the winter.

Size of liner:

Length = (max length of finished pond + 2x max depth)
Width = (max width of finished pond + 2x max depth)

Based on a 5m x 4m pond, 0.75m deep:

Length of liner = 5 + 1.5 = 6.5m
Width of liner = 4 +1.5 = 5.5m

It is a good idea to include a shallow beach area at one end of the pond, to help creatures get in and out of the water. This can be filled with large cobbles, available for about £5 per bag.

Plants

Choose native, non-invasive plants that suit different areas of the pond i.e. deep water, shallow water, boggy area/shallow shelves, oxygenators and floating leaved plants.

Buy several of each species so they can be planted in natural groups. Some plants may require planting in pond baskets, with pond soil (low nutrient soil) and small stones or gravel to prevent them floating away.

Enough plants for an average garden pond will cost about £100 depending on the size bought i.e. plugs or larger pot plants. Larger plants may establish quickly but will be more expensive. Suggested plants include:

Oxygenators
Spiked or Whorled Water Milfoil (*Myriophyllum spicatum or verticullatum*)
Rigid or Soft Hornwort (*Ceratophyllum demersum or submersum*)

Floating-leaved plants - to be planted in water about 2ft deep
Amphibious bistort (*Polygonum amphibia*)
Frogbit (*Hydrocharis morsus-ranae)*
Arrowhead *(Sagittaria sagittfolia)*
Water crowfoot (*Ranunculus sp.)*

Strappy-leaved emergent plants - plant in about 1 ft of water, maybe a bit deeper
Flowering rush (*Butomus umbellatus*)
Branched burr reed (*Sparganium erectum*)
Yellow Iris (*Iris pseudacorus*)

Marginal plants

To be planted in shallow water & along waters edge
Water mint (*Mentha aquatica*)
Water forget-me-not (*Myosotis scorpiodes*)
Marsh marigold (*Caltha palustris*)
Brooklime (*Veronica beccabunga*)

NB Avoid the following invasive plants as these will soon take over any pond

- Australian swamp stonecrop
- Curly water weed,
- Floating pennywort
- Parrot's feather
- Water fern
- Water primrose
- Canadian pondweed

Fish

In order to maximise the wildlife potential of ponds we recommend against stocking ponds with fish as this will restrict the diversity of species. Fish eat eggs and tadpoles of amphibians together with other water living invertebrates.