

A photograph of a lush garden filled with a variety of colorful flowers, including orange, pink, purple, and yellow blooms. The garden is situated in front of a two-story brick building with several windows and a chimney. A large tree trunk is visible on the left side of the frame. The text is overlaid on the upper portion of the image.

Hackney Biodiversity Partnership

Biodiversity Management in Hackney: Advice notes on creating and managing areas for wildlife

Hackney Biodiversity Partnership Advice Note 1 – Managing Existing Grasslands

Why?

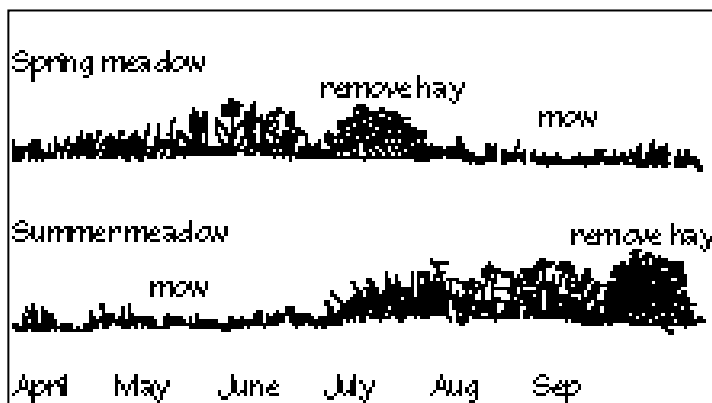
Areas of grassland make up the largest proportion of our parks and green spaces at approximately 260 hectares of land in Hackney. The vast majority of this is managed as short mown amenity grass. Although this is an important resource for recreation, amenity grass provides very little value for wildlife and can also be expensive to maintain. By leaving some areas to grow long and encouraging a wider mix of species it is possible to:

- attract more wildlife such as butterflies and bees
- make an area more colourful, interesting and attractive

How?

The best way to improve the biodiversity value of a grassland is to reduce its fertility as both wildflowers and native grasses do best on poor soils. To diversify an area of existing grassland the following steps should be used:

- reduce the frequency of mowing (see below)
- cut to a height of between 5cm and 10cm
- leave some areas uncut to provide habitat for insects over the winter. In public sites, this may be best achieved through leaving a strip of uncut grass along an edge of the site or in obviously managed clumps.
- always remove mowings/clippings from the site
- stop any fertiliser treatment



The timing and frequency of mowing will depend on what the grassland is being managed for i.e. spring flowering meadows are usually cut in July, summer flowering meadows are usually cut in October.

Grassland management regimes, from BTCV:

<http://handbooks.btcv.org.uk/handbooks/content/section/1163>

Further advice:

- BTCV Urban Handbook
<http://handbooks.btcv.org.uk/handbooks/index/book/47>
- Lowland Grassland Management Handbook
<http://naturalengland.etraderstores.com/NaturalEnglandShop/Grassland>

Hackney Biodiversity Partnership Advice Note 2 – Creating New Meadows

Why?

Although it is possible to improve the value of existing grasslands by altering the management regimes (see Advice Note 1), it is sometimes easier to create a new wildflower area than to convert existing grasslands.

It is important to consider whether a new meadow is right for the site. Certain areas are already of high wildlife value and it might not be appropriate to plant new species.

How?

The precise methods will vary depending on what sort of meadow is being created, but there are some basic principles that should be followed to prepare the site:

- Lower the fertility of the area by stripping off top-soil (this can also be achieved through using herbicide such as glyphosate if appropriate for the site).
- It is possible to put in patches of wildflower into existing grass but make sure the areas are at least 1m square.
- Break up the sub-soil, remove large stone and rake.
- The best times to sow wildflower seed are March to May or September to October.
- Sow with a seed mix appropriate for the site (see below). 4grams of seed per metre is appropriate for most mixes. Seed can be mixed with sand to make it easier to sow.
- Plug plants can also be used to create an immediate effect, though this is often much more expensive than sowing.

Seed mixes:

There are a huge variety of seed mixes available and it is important to choose the right mix for the site. Things that you should consider are:

- Does the site already have areas of meadow?
- When do you want the meadow to flower?
- What species do you want to attract?
- What are the site conditions?

Once you have thought about these then it is easy to find the right mix; many companies advertise on the internet.

Managing the meadow:

See Advice Note 1 for information about when to cut meadows. It is useful to mow in paths and small areas for people to sit. This will show that the area is being well managed as well as encouraging people to enjoy the space.

Further advice:

- BTCV Urban Handbook
<http://handbooks.btcv.org.uk/handbooks/index/book/47>
- BTCV Practical Conservation Handbook
<http://handbooks.btcv.org.uk/handbooks/index/book/141>

Hackney Biodiversity Partnership Advice Note 3 – Hedgerows

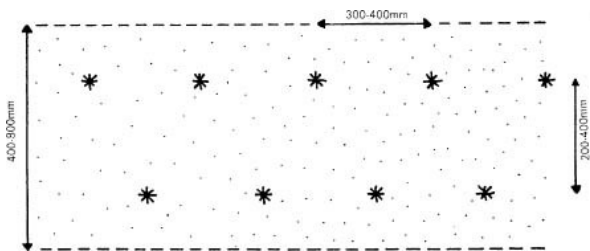
Why?

Hedgerows can provide amazing habitat for a number of species including nesting birds, insects and many plants. They provide the three key things that wildlife needs – a place to breed, a place to shelter and a source of food. They also provide 'corridors' for wildlife to move around sites.

How?

Planting new hedgerows:

- plant along existing boundaries or to screen/divide areas of a site
- select appropriate species for the site (see below) and choose young shrubs/'whips' as they are less expensive and produce a better hedgerow
- the best time to plant is between December and March
- either pit plant in a line at approximately 6 plants per metre OR plant in two lines to create a 'W' pattern with plants about 20cm apart. 'W' planting often creates a thicker, more natural hedge.



'W' planting from BTCV:
<http://handbooks.btcv.org.uk/handbooks/content/section/4263>

Species selection:

- A mixed species hedgerow provides the most value for wildlife as it mimics a woodland edge; if you are using a single species make sure it provides some wildlife interest
- Native trees and shrubs always provide the most wildlife value. In Hackney most existing hedges contain species such as hawthorn, blackthorn, field maple, beech etc. Trees can be added at intervals to provide more interest, such as hazel, oak or ash.
- Wildflowers and climbers can be added once the hedge is established

Maintaining hedgerows:

- In the first year remove weeds by hand and mulch the hedgerow.
- Once the hedges are c.5 years old they can be cut annually; it is best to cut them to an 'A-shaped' profile so that they are slightly wider at the bottom than the top
- the best time to cut hedges is late winter so that any berries are available as a food source for wildlife; hedges should not be cut during the bird breeding season (March to September)

Further advice:

- London Wildlife Trust – How to Plant a Mixed Hedgerow
<http://www.wildlondon.org.uk/portals/10/How%20to%20guides/HowToHedgerow.pdf>

**Hackney Biodiversity Partnership
Advice Note 4 – Biodiversity Enhancing Planting**

Why?

Not all sites are suitable for creating large areas of natural habitats, however even the smallest patch of green space within a park, development or private garden can be enhanced for biodiversity through appropriate planting. Urban habitats can be created by providing sources of food, shelter and places to breed for a range of wildlife.

How?

Food: this can be sources of nectar for butterflies and bees, berries for birds, or small insects that other species will feed on.

Shelter: all wildlife needs places to breed and rest so it is vital to include a range of species in your planting plan to provide as much variety as possible. Taller shrubs should be placed at the back of beds to provide additional shelter.

Choosing your plants:

- Select colourful species to attract a range of species. Blue, purple and yellow flowers are often preferred by insects.
- Make sure there are species that flower at different times of the year to provide a continuous source of nectar and pollen.
- Provide homes for larvae. For example, many species that butterflies feed on cannot support their young so you may need to have a patch of nettles as well as your nectar rich flowers.

Pollen and nectar sources for bumblebees throughout the seasons:

March and April	May and June	July and August
Berberis	Aquilegia	Cornflower
Bluebell	Campanula	Delphinium
Bugle	Comfrey	Fuchsia
Flowering Currant	Everlasting Pea	Lavender
Lungwort	Geranium	Rock-rose
Pussy Willow	Foxglove	Scabious
Rhododendron	Honeysuckle	Sea Holly
Rosemary	Monkshood	Heathers
Dead-nettle	Stachys	
Heathers	Thyme	

(adapted from Natural England's 'Help save the Bumblebee...get more buzz from your garden' available at <http://naturalengland.etraderstores.com/NaturalEnglandShop/B00>)

Further advice:

- London Wildlife Trust – How to Plant Drought Resistant Plants
<http://www.wildlondon.org.uk/portals/10/How%20to%20guides/HowToDroughtResist.pdf>
- BTCV – Insect Gardens
<http://handbooks.btcv.org.uk/handbooks/content/section/4268>

Hackney Biodiversity Partnership Advice Note 5 – Native Bulbs

Why?

Many people enjoy see a burst of colour in spring as the first bulbs of the year appear. In our parks and green spaces bulbs often provide a reminder that nature is all around us, even in our cities.

Native bulbs are the most beneficial for wildlife as they have developed in unison with our insects and animals and can provide a valuable food source early in the year. Many of our native bulbs have declined over the last century due to loss of more natural habitats. Providing a home for them in our urban environments may help to conserve these species.

How?

Make sure that the area to be planted does not have any existing wildlife interest. Most sites in Hackney will have areas that are suitable to plant native woodland bulbs. In the wild, these species grow under trees and flower before the tree canopy closes.

Bulbs should be planted in the autumn, ideally September or October. It is very important to use native species as some non-natives (such as Spanish bluebells) can spread into the wild and cause problems for our wildlife. There are a number of suppliers who can provide native bulbs that are sustainably sourced.

To get a dramatic effect it is good to plant a large number of bulbs and create a 'carpet' of colour. It is best for wildlife to have several different species on a site to provide nectar sources for insects at slightly different times.

The following species are suitable to plant in Hackney:

Species	Minimum group size	Planting depth	Spacing
Bluebells (<i>Hyacinthoides non-scripta</i>)	2-3	10cm	60cm
Lesser celandine (<i>Ranunculus ficaria</i>)	2-3	5cm	15cm
Ramsons (<i>Allium ursinum</i>)	3-4	5cm	30cm
Snowdrops (<i>Galanthus nivalis</i>)	6	5cm	30cm
Wild daffodils (<i>Narcissus pseudonarcissus</i>)	2-3	5cm	30cm
Wood anemone (<i>Anemone nemorosa</i>)	2-3 rhizomes, horizontally	5cm	30cm

Further advice:

- BTCV – Native flowering spring bulbs
<http://www.cvni.org/biodiversity/advice/woodland/springbulbs/>
- BTCV – Bulb planting
<http://handbooks.btcv.org.uk/handbooks/content/section/1111?keywords=bulb>

Hackney Biodiversity Partnership Advice Note 6 – Invertebrate Loggeries

Why?

Many insects and bugs need dead wood as part of their lifecycle. Some species feed on the dead wood, while others use it as a home. Stag beetles are a protected species because they are very rare. They lay their eggs in logs or stumps of dead trees and the larva will spend up to seven years inside the dead wood.

The tidying up of parks and a lack of natural areas means that the amount of dead wood in London has reduced in recent years. By creating insect loggeries we can replace this valuable habitat and ensure it is situated in the areas where we want it. This means we can ensure it fits in with the surroundings of parks and is not in areas prone to disturbance.

Creating an invertebrate loggery is a simple and inexpensive process. It is a good task to undertake with volunteer groups or trainees because it is an effective project with a visible result.

How?

1. Find a number of large logs 10-50cm diameter. It is best to use a hardwood (such as oak, beech, sycamore or ash) with bark still attached. Speak to the park manager to find out if there are any logs already available in the site. If not, our tree team often carry out works and may have logs available.
2. Decide where on your site you want to put the loggery. A partially shaded works best.
3. Dig a hole about 60cm into the ground and place the logs in 'end up' as shown in the picture below.
4. Fill the soil back around the log pile to make it secure.
5. Leave the loggery alone and the invertebrates will soon turn up



Loggery pyramid from http://www.lbp.org.uk/downloads/Publications/Management/stag_advice.pdf

Further advice:

- London Wildlife Trust – Stag Beetle <http://www.wildlondon.org.uk/HabitatsandSpecies/Species/Londonspriorityspecies/Stagbeetle/tabid/176/language/en-GB/Default.aspx>
- PTES – Stepping Stones for Stags <http://www.ptes.org/?page=355>

**Hackney Biodiversity Partnership
Advice Note 7 – Nesting Sites (boxes and bricks)**

Why?

As we 'tidy-up' our urban environment we often reduce the number of places available for birds to nest – such as gaps in buildings, areas of woodland or natural river banks. It is possible to use artificial nesting sites to make up for some of this decline and help to conserve our urban bird species.

How?

The specific details of nesting sites will vary depending on the species, however there are a few key principles:

- Unless the area is well sheltered, face the brick/box between north and east to avoid strong sunlight and winds
- Make sure birds have a clear flight path to the nest
- Tilt boxes forward slightly so rain will bounce away
- Nest boxes should be cleaned out every autumn once the birds have left
- Nesting bricks incorporated into new developments often provide longer lasting benefits and require less maintenance

Species	Artificial nest type	Location	Further advice
House Sparrow and Starling	Hole fronted (32mm for house sparrow, 45mm for starling)	2-4m up a wall or up under eaves, 2-3 can be placed nearby as they nest in loose colonies	http://www.rspb.org.uk/advice/helpingbirds/nestboxes/smallbirds/index.aspx
Robin and Wren	Open fronted	Below 2m, well hidden in vegetation	
Tits	Hole fronted (25mm hole for blue, coal and marsh tits, 28mm for great tits)	2-4m up a tree or wall	
Swift	'Letterbox' entrance minimum 65mm – 25-35mm	Under eaves in houses or >5m up offices/commercial buildings	http://www.london-swifts.org.uk/
Kingfisher and Sand Martin	Artificial tunnel	Banks of watercourses or nearby	http://www.lbp.org.uk/downloads/Publications/Management/artificial_bank_creation.pdf
Tawny Owl	Open fronted	At least 2.5m above ground on tree trunks or branches	http://www.bto.org/gbw/Tawny_Owl_Survey/tawny_owl_nestboxes.htm
Peregrine Falcons	Open fronted or open trays	20-200m above ground on suitable structures (see further advice)	http://www.lbp.org.uk/downloads/Publications/Management/peregrine_nest-box_advice.pdf

Further advice:

- Design for Biodiversity www.d4b.org.uk

Hackney Biodiversity Partnership Advice Note 8 – Bat Sites (boxes and bricks)

Why?

Bats roost in various places depending on their species and the time of year. Roosts can include hollow trees, roof spaces, behind boarding and both old and new houses. The gaps and crevices bats use can be lost as buildings are tidied-up and made more energy efficient. There is also a tendency to remove old trees from public spaces for health and safety reasons.

Artificial bat roosting sites may be used to make up for some of this loss in habitat and provide homes for our highly protected bat species.

How?

Details of boxes and bricks will vary depending on the species of bat and the time of year the feature is to be used, however there are a few key principles:

- Boxes and bricks should be sited at least 2m above ground on a structure or tree with some shelter. The entrance should be accessible and not covered.
- To encourage bats to use boxes and bricks, foraging habitats should be incorporated into the landscape design. Guidance on planting schemes is available from the Bat Conservation Trust at: http://www.bats.org.uk/publications_download.php/231/Encouraging_bats_updated_Oct09.pdf.
- Bat bricks are preferable in new developments. As well as blending in with the structure, they will provide longer lasting benefits and require minimal maintenance.
- Wooden boxes should be made of rough wood so that bats are able to grip to it. The FSC logo shows wood is from a sustainable source.

Details on sourcing bat bricks and boxes:

- Bat Conservation Trust – Construction Industry
http://www.bats.org.uk/pages/construction_industry.html

Guides to making bat boxes:

- Bat Conservation Trust
http://www.bats.org.uk/publications_download.php/235/Howtomakeabatbox.pdf
- Norfolk Bat Group <http://www.norfolk-bat-group.org.uk/framebb.html>

Further Advice:

- Bat Conservation Trust – www.bats.org.uk
- London Bat Group - <http://www.londonbats.org.uk/>
- Lea Valley Bats - <http://www.leevalleybats.org.uk/>
- Design for Biodiversity www.d4b.org.uk