LEVEL GARDEN NEWS

The Level Conservation Report 2

Conservation methods are taken seriously at The Level, to safeguard many species of insects (pollinators) which have declined in many areas - both town and rural.

Thus at The Level, measures are taken to increase biodiversity, and to restore and protect their natural habitats.

This can be done through measures such as:

- **Good plant diversity, eg wide range of perennials and wild flowers makes a better and healthier ecosystem for pollinating insects, as well as other beneficial insects.**

Honey bees visiting catmint (Nepeta x faassenii)

Cirsium vulgare (Common Thistle)

The Level is a pesticide-free zone, which is better for the environment and for the wellbeing of all. Instead, we use Neem Oil for controlling pests and diseases, such as greenfly or blackspot. Neem Oil itself comes from a tree in India (called Azadirachta Indica), and has been used for years as a form of natural pest control. Another name for this tree is Margosa.

Zero pesticide

You are entering a natural area

For the respect of the environment and well-being of all, we do not use pesticides in this park.

Habitats for pollinators = Healthier world

LOTTERY FUNDED

LEVEL GARDEN NEWS

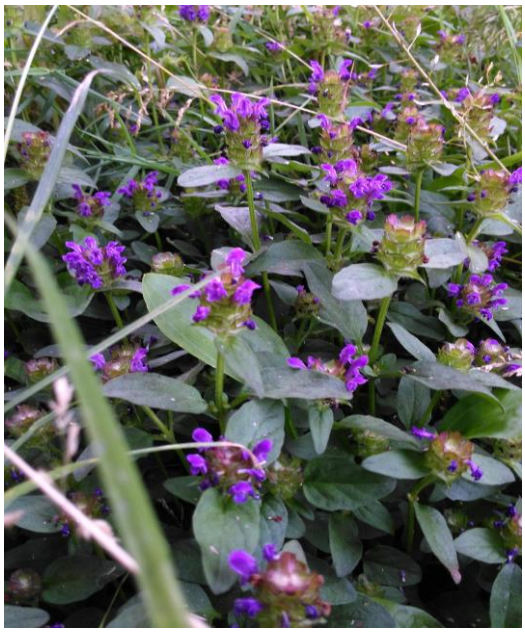
- **No peat-based materials are used (organic material only) such as leaves from autumn-time, grass trimmings, spent coffee grounds, wood ash from the cafe's pizza oven, as well as tea leaves.**
  All this organic matter (organic mulches) are beneficial, as they add nutrients back into the soil as they slowly decay. They also improve the soil's structure by creating an environment for organisms that are very beneficial for the soil.

Coffee grounds on one of the borders

Coffee grounds are beneficial to the plants because they slowly release nitrogen as they decompose, as well as improving the soil's structure; this also encourages more earthworms, and keeps pests such as slugs and snails at bay.

- **Designated areas such as the perimeter of the park have been left to grow, so that it may provide another stepping stone for wildlife. This in turn will give a 30% to 35% increase to the park's biodiversity.**
  In October 2015 we planted over 20,000 native Bluebells around the park's perimeter.

Common Centaury (Centaurium erythraea)



Selfheal (Prunella vulgaris)

These wildflowers and many others provide great habitats for wildlife.

Companion planting: Some plant species have beneficial effects on neighbouring plants. These are commonly known as 'Dynamic Accumulators' or mining plants; they gather certain micro-nutrients and macronutrients. These include Achilleas and stinging nettles, which can mine for sodium, sulphur, nitrogen, calcium, potassium, iron and copper and they can improve neighbouring plants' defence against pests and diseases.
The nettle can also be used to make a natural liquid feed.

Also, there are clumps of stinging nettle (Urtica dioica) that provide food and shelter for more than 40 species of insects, which are completely or partially dependent on nettles.

Certain butterflies - for example, Red Admiral, Small Tortoiseshell, Peacock and the Comma are dependent on nettles.

- **Ornamental grasses not only give a living bouquet effect to any border, but also provide a valuable hibernating place for beneficial insects such as ladybirds.**

Fountain grass in winter (a great hiding place for insects)

- **Over 95% of green waste is recycled on site - grass trimmings, leaves and of course prunings. The prunings themselves are scattered under the native hedgerow which surrounds the park's southern side. This provides nitrogen to the hedgerow as it decays, and gives a place for the insects, which in turn provide food for foraging birds. The prunings' remnants provide nesting materials for the birds in spring and summer.**

Green waste (prunings) decomposing under the native hedgerow

- **We also propagate about 50% to 60% of the plants from The Level to sustain the park's diverse planting. This is done through many forms of propagation, such as division, hardwood cuttings, semi-hardwood cuttings, soft tip cuttings and of course, from seed.**

Young plants being grown on **in** The Level's yard

- **We also started a seedbank herbarium (collection of preserved plant specimens) in August 2016. The seeds are contained in envelopes or old coffee jars.**

The Level's mini seedbank herbarium

Seeds collected

Centaurea macrocephala , Digitalis pupurea - Echinops ritro - Crocosmia 'lucifer' - Dispsacus fullonum - Lychnis coronala - Eupatorium cannabium - Papaver rhoeas

... plus many more.

Information: Informing the public about the plants of The Level is done via many communications mechanisms, but also especially through The Level plant database, which informs about the plants flowering at that specific time and if they are suitable for pollinators. A sample is below.

LEVEL GARDEN NEWS

The level Plant database

Salvia x sylvestris 'caradonna'

Family: Labiatae / Lamiaceae (Sage family)
Common Name: Caradonna sage
More than 800 species are widely distributed throughout the world
(North and South America, Africa, Asia and Europe)

- **Flowering: Late spring, early summer.**
- **Position: Full sun.**
- **Hardiness: Hardy.**
- **Propagation: Propagate by division in spring.**
- **Pests & Diseases: Generally trouble-free, but low temperatures could cause stunted growth on young plants.**
- **Cultivation: Cut back to ground level in winter.**

Many types of salvia attract pollinators, especially bees - plus some sages have medicinal or culinary use.

Scan here (left) for text info about this plant.

An example from the plant database.

As well as having plant databases for the public, there is also The Level Garden News (below) which informs people about new projects such as the butterfly bed, and also about specific plants of interest. This information is on The Level webpage, www.brighton-hove.gov.uk/thelevel, and is also displayed on some of the park information boards.

LEVEL GARDEN NEWS

The park's Butterfly Bed which is situated between the café and the MacLaren pavilion is now complete with its new explanatory sign and new planting, of which 50% are propagated at the park itself, from seed, cuttings and plant division .

(New explanatory sign)

Some of the new plants that have been added to this bed are:

Verbena bonariensis

Centaurea montana

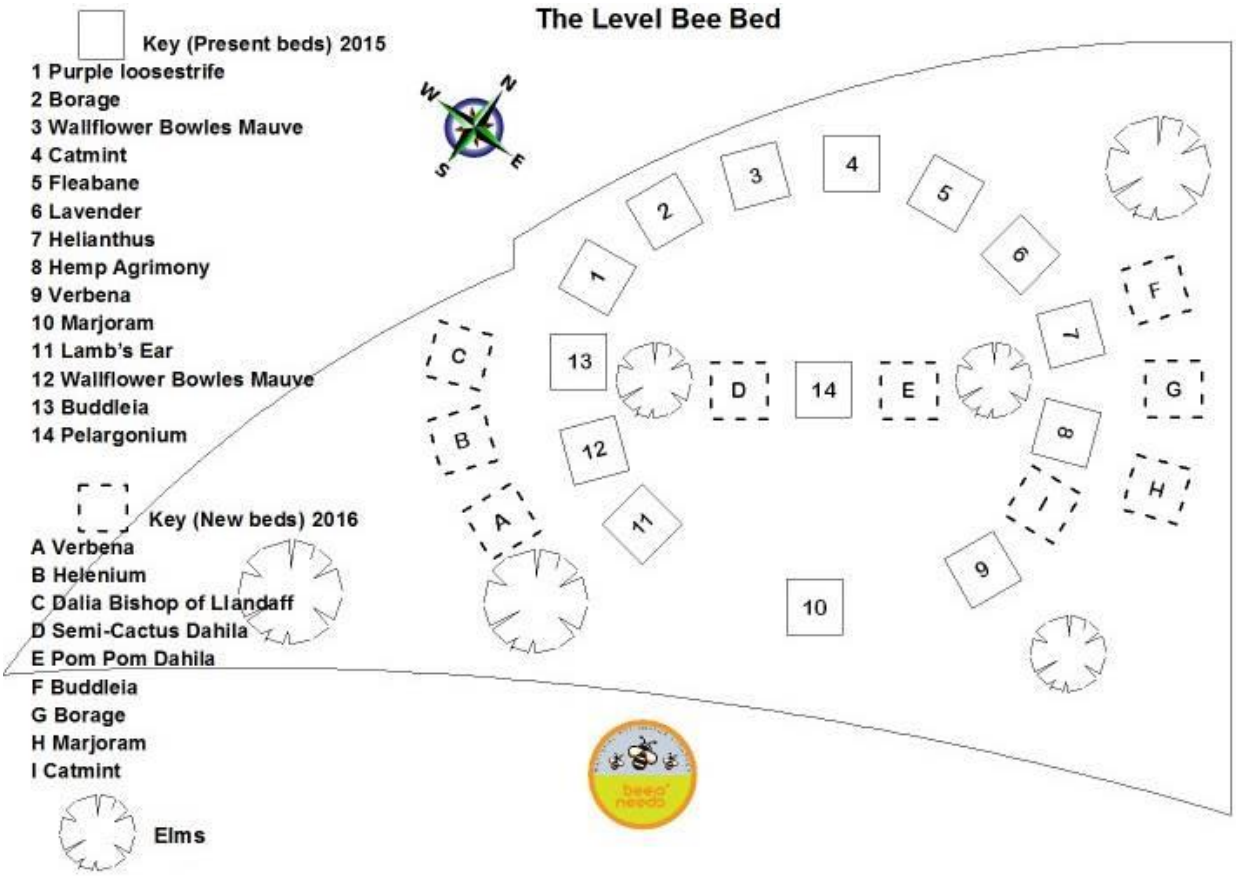
Centaurea macrocephala

Echinops

5 variaties of Buddleja

Hemp agrimony

An example of The Level Garden News



[illegible]

- **A new butterfly bed near the café, complete with its new explanatory sign and new planting, is for the benefit of butterflies and other pollinators. The plants we have selected are Echinops (Globe Thistle), Verbena bonariensis, Verbena hastata, Penstemon, Nepeta (Catmint), Mullein, Centaurea montana, Hemp agrimonyand some buddlejas Royal red, Black Night, White Profusion, Empire Blue and Nanho Blue, as well as some clumps of stinging nettle.**

- **The park's front entrance has also been landscaped with more attractive shade-tolerant plants.**

The plan for the south entrance 2016

- **We have also re-planted two beds near the café with drought-tolerant plants to demonstrate to the public the changing effects of our climate, making clear that we need to make better plant choices for the future.**

(Plant diversity creates a better healthier ecosystem)

All the plants selected for this project are beneficial for pollinators.

One the plant species chosen for this bed was Achillea 'Summerwine'

- **A new Bee Bed was created at the Open Market opposite the park in 2017 with the help of volunteers from The Level and the Market itself; this turned an unloved so-called brown area into a green area, thus linking the two sites. This in turn provides another stepping stone for wildlife.**

The Open Market Bee Garden

In partnership with The Level and Brighton & Hove City Council

Our little garden space has been turned into a bee friendly zone with the help of volunteers from The Level Conservation Initiative.

This Bee Garden is a pesticide free zone, which is better for the environment and for the well-being of all. Instead we use **Neem Oil** for controlling pests and diseases, such as greenfly or blackspot. Neem oil itself comes from a tree in India. **Azadirachta Indica** and has been used for years as a form of natural pest control. Another name for this tree is **Margosa**.

No peat based materials are used (organic material only) such as leaves from autumn, grass trimmings, spent coffee grounds; wood ash from the pizza ovens, as well as tea leaves. All of this organic matter or **organic mulches** are beneficial as they add nutrients back into the soil as they slowly decay, as well as improving the soils structure by creating an environment for organisms that are very beneficial for the soil.

Companion planting: Some species of plants have beneficial effects to neighbouring plants, commonly known as **Dynamic Accumulators** or mining plants that gather certain **Micronutrients & Macronutrients**, such as Achilleas and Stinging Nettles which can mine for **Sodium, Sulphur, Nitrogen ,Calcium, Potassium, Iron & Copper** which can improve the neighbouring plants defence against pests and diseases.

The plants that you see before you can be planted in your own garden to provide summer colour and nectar rewards for the diversity of pollinating insects. 40% to 50% of the plants are propogated at **The Level** to sustain diverse planting; this is done through many forms of propagation, such as division, hardwood cuttings, semi-hardwood cuttings, soft tip cuttings and, of course, from seed.

For more information please visit:
www.brightonopenmarket.co.uk
www.brighton-hove.gov.uk/thelevel

Special thanks to the following traders in the market for their support:
Market Florist Unit 4, The Food Shed Unit 9, Miniature & Moss Unit 10, Tea and Honey Unit 31, Beth Radish of The Artpothecary Unit 20 for designing this sign and to Steven Peters, Garden Manager of The Level

THE LIVING COAST
Brighton & Lewes Downs UNESCO World Biosphere Region
Brighton & Hove City Council
LGN LEVEL GARDEN NEWS

Green Roof

- **The Green Roof at The Level has many benefits.**

1) **It provides a more pleasing habitat**
2) **It is a modular system of pre-grown trays of wild flowers**
3) **The trays provide a habitat for plant species, animals, birds and insects**
4) **It provides sustainable drainage (absorbing about 60-70% of rainwater)**
5) **The insulation reduces the cost of heating and cooling**
6) **It provides sound attenuation**
7) **Carbon footprint reduction (Urban Heat Reduction) and the ability to trap particles and gases ($C0_2$) eg it can absorb around 100g (3oz) of particulate pollutants per sqm (of one car) = 3oz per sq yard per year.**

Photo of the green roof plus its solar panels (south side)

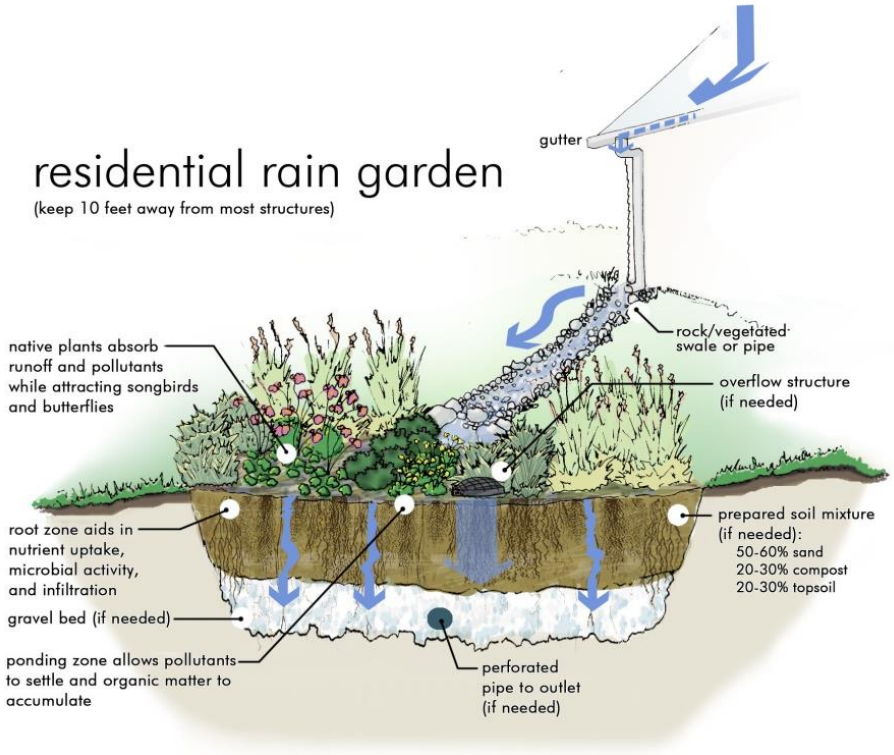
The Level Rain Garden

In spring 2017 we made a rain garden next to the cafe to absorb excess rainwater (75%) from the new flat roof. This will prevent semi-flooding to this particular area. In addition to this we have also planted some particular plants that can cope with such conditions, such as:

Eupatorium cannabinum (Hemp agrimony)
Which is also very good for pollinators

There are also some varieties of grasses, Stipa Calamagrostis (Needle grass) and Stipa Arudinacea (Feather grass) that can also deal with the damp conditions, thus making this bed more sustainable and more attractive to the eye.

This diagram shows a very good example for a successful rain garden, that can be implemented in any garden.



Volunteer development at The Level

For the past four years we have been running a volunteer garden club on Thursday mornings.

The idea for the gardening club is for people to understand more about the world of horticulture, biodiversity and conservation.

- **This would include a weekly plant ID to build knowledge of the plants we have at the park**
- **Propagation skills, such as hardwood cuttings, plant division, softwood cuttings, layering and sowing seeds. (all this promotes a form of sustainability for the park)**
- **Plant care in which the volunteers learn how to look after the plants, such as pruning skills.**
- **Planting skills (what plant where and why?)**
- **Beneficial planting to encourage pollinators.**
- **Companion planting.**
- **Encourage environmental knowledge.**
- **How to garden without the use of pesticides.**

Over 50% of the individuals that have participated in the garden club have gone on to study horticulture (RHS 1,2 and 3, & landscape design) This is a positive outcome as it helps to close the horticulture skills gap.

Volunteers working in one of the borders at the level

Other benefits of the gardening clubs are:

- To make new friends.
- Feel that you are doing you part for the wellbeing of the park.
- To become park ambassadors.
- An aspect of eco therapy for all.
- To enjoy through learning.
- Enhancing health and wellbeing

Working with City College students

In 2014, we worked with the students from City College to promote the level as a great place to be for them to learn things, such as:

- **Encouraging environmental knowledge through guided talks on biodiversity and sustainability of the level.**
- **Teaching the students the importance of sustainability and what they can do at home and at college. (Making a wildflower area for example)**
- **Additionally, doing such things in the park as a group, builds there self-awareness, confidence, communication skills and makes them better aware of the environment that surrounds them.**
- **Doing regular bee counts throughout May and June for students to identify most commonly seen bees and build up a database with the results.**

For example the flowers which attracted the most bees that year were:

Nepeta x frasseni (catmint), Salvia x sylvestris ‘caradonna’, Allium schoenoprasum (chives), and a favourite with the bumble bees was Tymus Vulgaris.

Left Nepeta x frasseni (catmint)

No1 for bees

The park has also won the bees needs award consecutively during the years of 2015 and 2016 for providing home and food for pollinators.

Bees needs awards 2015 and 2016

BRIGHTON & HOVE GREEN SPACES FORUM

In November 2017 the Green Spaces Forum was launched

Brighton & Hove Green Spaces Forum (BHGSF) is a volunteer organisation set up to provide an independent voice and communication hub for community groups working in Brighton & Hove's parks and open spaces.

Benefits of joining the Brighton & Hove Green Spaces Forum

Coming together as one community helps improve communication between those involved in caring for our parks and open spaces. Specifically the BHGSF aims to facilitate:

- Communication between green spaces voluntary groups and other agencies.
- A mechanism to help green spaces volunteer groups mutually support one another.
- Visibility and access to different funding opportunities that are available.
- Easy access to available volunteer training opportunities.
- One voice for green space community groups whether large or small.

Mission Statement:-

"We seek to bring together volunteer groups concerned with the management of Brighton & Hove green spaces to exchange information, advice and knowledge: Communicating and working in partnership with similar groups and organisations to maximise environmental improvement and conservation."