**APPENDIX H**

# CAMLEY STREET NATURAL PARK

## Conservation statement

### Four paradigms

The nature conservation and natural heritage interest of Camley Street Natural Park (CSNP) is the result of four interventions over the past 200 years.

By the turn of the 18-19th centuries the land currently occupied by CSNP was agricultural, serving the farms of the neighbourhood. In 1810 the land in the Manor of St Pancras was bought by William Agar, including land for a canal. Construction of the canal began in 1812, and was completed in August 1820, opening as the Regent's Canal. Within the first year it was carrying 100,000 tons of goods.

The second intervention followed the opening of the railway termini at King's Cross by the Great Northern Railway (in 1852) and then St Pancras by the Midland Railway (in 1868). The rapid growth that the railways brought about encouraged both railway companies to acquire land north of the canal (the 'railway lands') to provide facilities for major freight exchanges, for example coal from the Midlands and north-east of England. Two coal drops – facilitating coal from rail to canal and horse-dray – were constructed at King's Cross; the Western Drops on the western side of the canal were completed by 1860.

Certainly for the subsequent 100 years very little wildlife will have survived in an intensely managed and polluted part of the city.

The third intervention followed the closure and demolition of the coal drops in the late-1960s. This led to the natural colonisation of wasteland species, a common response to post-industrialisation. By the mid-1970s the site would have been covered by a sward of flowering plants and grasses, with a mosaic of butterfly-bush and willow scrub, providing habitat for a range of invertebrates and birds. The canal also had become a quieter backwater providing some habitat for mobile aquatic birds such as mallard, moorhen and mute swan.

By 1981 the site, fenced off and used by prostitutes, had been recognised as a potentially important site to promote for nature conservation. Concerns that the Greater London Council had by then identified it as a coach park to serve the stations led to a campaign to save it. However, in September 1983, once plans to save the site had been secured, it was occupied by travellers and significant amount of habitat was destroyed. In addition, the underlying soils were heavily contaminated from its previous use, which led to the decision to effectively landscape the site from scratch.

Therefore the fourth intervention was the deliberate design and planting of CSNP from late-1983 to spring 1985, which included the creation of the pond, meadow, woodland and an undulating topography to create interest for the visitor and niches for micro-habitats to establish. Since CSNP's opening this has further been refined by a combination of the London Wildlife Trust's management (including introduction, control and/or removal of species), and natural colonisation.

Over and above this have been the wider environmental changes CSNP (and its previous uses) have witnessed since the 1860s. These include:

- gradual but significant improvement in water quality of the Canal
- significant improvements in air quality since the 1950s
- reduction since the early 2000s of particulate dusts that had affected CSNP from the adjacent waste transfer facility
- changes in the trends of species numbers and distribution, including non-native species
- changing noise levels – consistently high since CSNP opened, firstly the adjacent waste facility and now the construction of new development
- increased 'busyness' and visitor numbers, especially since 2010, incurring potential disturbance to sensitive species

With a significant tumultuous history since 1860, the nature reserve's biodiversity today reflects the changes that have taken place – both directly and indirectly – in a highly dynamic part of London. Nevertheless, the site is ecologically young; nothing remains from the period before it was constructed as a coal drop. Following the site's landscaping the ecology is a mixture of some of the seedbank that developed post-1960s, that planted since 1983-5, and that which has arrived of its own accord in the past 30 years.

## Soils and substrates

Site clearance in 1983 removed the top layer of soils, including dumped refuse. Immediately below this, in bands across the site, were the brick foundations of the coal drops, as well as coal dust and Victorian debris (pottery, etc.). During the creation of the reserve remaining soils were buried under the landscaped mounds, under imported clay subsoils, some of which was from agricultural land, but mostly from other building sites. The soils are roughly neutral with a slight alkalinity (pH 7-75).

## Habitats and species

Within its 0.8 hectares, CSNP supports a tight mosaic of a variety of habitats: recent secondary woodland, semi-improved neutral grassland, amenity grassland, pond, reed bed, wet marginal vegetation, tall herbs, and scattered trees. In addition are raised beds, trellises, and a variety of features including nest boxes, habitat piles/loggeries, bee hives, and bee hotels.

*Woodland*

All the woodland areas have developed from trees planted (mainly in 1984-85) and consist of a broad – and typical – suite of native species, including goat willow (*Salix caprea*), crack willow (*S. fragilis*), silver birch (*Betula pendula*), field maple (*Acer campestre*), rowan (*Sorbus aucuparia*), oak (*Quercus sp*), wild cherry (*Prunus avium*), blackthorn (*P. spinosa*), ash (*Fraxinus excelsior*), hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), wild privet (*Ligustrum vulgare*) and guelder-rose (*Vibernum opulus*).

The woodland community is typical for its age and history, and supports a relatively poor ground flora, although this has been supplanted by some planting, e.g. of bluebell (*Hyacinthoides non-scripta*), lords-&-ladies (*Arum maculatum*), ramsons (*Allium ursinum*), oxslip (*Primula elatior*), common dog-violet (*Viola riviniana*) and sweet violet (*V. odorata*). Stands alongside the wetland are dominated by alder (*Alnus glutinosa*) and willows, whilst the higher and dryer parts are dominated by hazel, oak, ash and silver birch. In addition colonising elder (*Sambucus nigra*) and butterfly-bush (*Buddleja davidii*) have developed into areas of scrub and, where light levels permit, an understorey. Log piles have been created for invertebrates.

*Grassland*

There are two grasslands areas. The main meadow is species-rich, with broad- leaved herbs present and a small colony of orchids. In spring a cluster of (planted) snake's-head fritillary (*Fritillaria melagris*) emerge, as well as primrose (*Primula veris*), bluebell, red campion (*Silene dioeca*), followed later by rosebay willowherb (*Chamerion angustifolium*). The grassland covering the mound to the north of the buildings supports a poorer species diversity, including typically daisy (*Bellis perennis*), plantains (*Plantago sp*.), and dandelion (*Taraxicum x officinalis*).

*Ponds, marsh and pond margins*

The north pond, separated from the main (southern) pond, is broad and relatively shallow, and fed by the canal. It supports emergent, floating and a few submerged plant species such as common water-starwort, greater spearwort (*Ranunculus lingua*) and rigid hornwort, surrounded by a fringe of common reed. There is a population of white water-lily (*Nymphaea alba*) and least duckweed (*Lemna minuta*) also features. In some years duckweed has blanketed the entire pond. The south pond is shallow; bogbean (*Menyanthes trifoliata*) and common reed are the prevalent species here, as well as marsh-marigold (*Caltha palustris*).

The main marsh is dominated by sweet grasses, and a variety of marginal plants such as yellow-flag (*Iris pseudacorus*), creeping marshwort (*Apium repens*), meadowsweet (*Filipendula ulmaria*) and purple-loosestrife (*Lystrum salicaria*). A rain water pond, created in 2004, is therefore less well established but supports smooth newt and visiting dragonflies.

The canalside and inlet to the pond are dominated by greater pond sedge (*Carex riparia*), under a canopy of willows. A number of planted floating islets were installed within the canal in 2013-14.

*Garden ornamentals*

Ornamental garden beds, together with a temporary variety of planted structures have been placed around the buildings over the reserve's history. Planting schemes in these beds are regularly changed, depending on project, circumstances and the Trust's needs (for example plants with a sensory interest). A floating tree nursery was planted in a moored barge in 2013-14.

***Species***

Over 300 higher plants have been recorded at CSNP; a significant number of these have been deliberately planted but others will have naturally colonised. A number of London rarities are recorded from the reserve, including common broomrape (*Orobanche minor*), hairy buttercup (*Ranunculus sardous*), spiked water-milfoil, (*Myriophyllum spicatum*), shining cranesbill (*Geranium lucidum*), galingale (*Cypurus longus*), reflexed saltmarsh-grass (*Puccinellia distans*), triangular club-rush (*Schoenoplectus triqueter*, critically endangered), pennyroyal (*Mentha pulegium*, Schedule 8 listed), and common spotted-orchid (*Dactylorhiza fuchsia*).

Uncommon ferns are also present, including maidenhair spleenwort (*Asplenium trichomanes*), common polypody (*Polpodium vulgare*) and soft shield-fern (*Polystichum setiferum*). No full survey of brophytes, lichens or fungi has been undertaken although several species have been observed. The only notable fungus known to occur is an earth-star *Geastrum triplex*.

Invertebrate fauna will be typical for the site, as a result of its location and habitat composition – with a high proportion of very mobile species that utilise the canal and other green spaces as 'stepping stones'. These include freshwater molluscs, crustacea (e.g. *Gammarus,* woodlice), centipedes, common dragon- and damselflies (e.g. southern hawker, broad-bodies chaser), crickets (e.g. long-winged conehead), aquatic and plant bugs (e.g. water boatmen, hawthorn shield bug), butterflies and moths (e.g. speckled wood, red admiral, peacock, holly blue, silver-y), ladybirds, bees

and wasps. Irregular surveys have typically revealed some uncommon species such as *Tetragnatha pinicola* (a log-jawed spider) *Donacia vulgaris* (a leaf beetle), *Oedemera lurida* (a thick legged flower beetle), and *Lasioglossum malachurum* (a mason bee).

Fish recorded within the ponds and canal margins include 3-spined stickleback (*Gasterosteus aculeatus*), European eel (*Anguilla anguilla*), and pike (*Esox esox*).

Common frog (*Rama temporaria*) and smooth newt (*Lissotriton vulgaris*) are present on site. Common toad (*Bufo bufo*) was at one time frequent but is now less commonly encountered. No native reptiles have been recorded, but red-eared terrapin (*Trachemys scripta elegans*) arrived on the site in the early 1990s, a result of deliberate introduction in the canal.

Breeding birds commonly using CSNP include moorhen, coot, mallard, robin, blackbird, wren, blue and great tit, but have also included reed warbler, blackcap, and jay. Grey heron, mute swan, kingfisher, lesser redpoll, siskin are occasional but regular visitors. Snipe has been a rare visitor, whilst chiffchaff typically resides here in winter. More remarkable sightings include little grebe (*Tachybaptus ruficollis*), red-legged partridge (*Alectoris rufa*), common pheasant (*Phasianus colchicus*), and firecrest (*Regulus ignicapillus*).

Mammal diversity is typical for the site; red fox, brown rat, and regular foraging pipistrelle and Daubenton's bats.

## Management

Management of Camley Street Natural Park has been fundamentally to maintain and enhance the mosaic of habitats and the diversity of species these support. In addition, it has had to balance the needs of wildlife with the other key purposes of the reserve, such as education and safe visitor management. The approach has been set out in an on-going series of management plans, and a consistent presence of staff and volunteers since the reserve's creation has enabled these plans to be executed to a high degree of consistency.

Nevertheless, the small size of the reserve has meant that management has tended towards 'gardening' and is finely tuned; large-scale interventions will have a disproportionate impact on the site. Nevertheless, at times over the reserve's history the demands of the Trust and/or particular interests of staff/volunteers based at CSNP have placed undue pressure on the balance of wildlife/people, and an encroachment on habitat space to serve other functions. In addition, management has tended to view CSNP as a suite of habitats that needed to be managed in a 'traditional' way rather than adopting more radical approaches, for example, retaining a character of the post-industrial ecological communities that were present on site in the early 1980s.

## Nature conservation designations

Camley Street Natural Park is identified as a Site of Metropolitan Importance for Nature Conservation (SMI – Site M095), the highest tier of London's 'wildlife site' system.[1] This is predominantly down to the story of its innovative creation and its value for providing people access to nature in inner London; it would unlikely merit SMI status on the nature conservation interest of the habitats and species on site. The site's SMI status was reviewed by the Trust in 2014 as part of its survey of Camden's SINCs, under commission from Camden Council. [2]

[1] https://www.london.gov.uk/sites/default/files/sinc_selection_process_-_update_march_2013.pdf
[2] London Wildlife Trust (2014), *Review of Sites of Importance for Nature Conservation in the London Borough of Camden*

The reserve lies adjacent to The Regent's Canal, which is also identified as a SMI (site M006) for much of its length, predominantly for serving an important aquatic conduit for fish, birds and invertebrates. Nearby, to the west of the railway, lies St Pancras Gardens, identified as a Site of Borough (Grade II) Importance for Nature Conservation (site CaBII07).

Camley Street Natural Park is designated as a statutory Local Nature Reserve (LNR) under Section 22 of the National Parks & Access to the Countryside Act 1949. This gives powers to local authorities to set aside land of special biodiversity (or geological) interest with the purpose of conserving it for nature and providing opportunities for education and/or research. The Park was designated as a LNR by Camden Council in 1993.

In February 2015 CSNP was given, somewhat belatedly, the UK Man & the Biosphere Urban Forum's Award for Excellence for '*creating an exemplary space to encounter nature in the heart of the city and continuing to inspire others to do the same*'.[3]

A few of the species present on site are legally protected under the Wildlife & Countryside Act 1981 (as amended) and/or other legislation. These include bats, all birds breeding on site, specially protected birds such as kingfisher (listed under Schedule 1 of the W&C Act), and pennyroyal (listed under Schedule 8). This places certain constraints on the site's management and any potential changes to the site (e.g. development), for which specific requirements are set out.

## Relative ecological importance and trends

The habitats at CSNP are not rare at a regional – London-wide – level. However, woodland (both native and non-native) is a scarce habitat in Camden, occupying less than 14% of the borough's land area. Ponds and marshes are also scarce, especially so close to the centre of London. Species numbers recorded are also relatively high for a site of CSNP's size and location, although this as predominantly a result of planting and recorder effort rather than intrinsic biodiversity interest.

The ecological communities at Camley Street Natural Park – whilst still young – are maturing. The wetlands are now well-established, and the woodland trees and shrubs are influencing CSNP's grasslands. Other habitats have changed their original composition. Many species have come and gone; others will arrive. Consequently the woodland and reedbed habitats are now more valuable for invertebrate and bird species and are expected to continue to improve as they mature further. Current management aims to minimise the loss of important grassland and wetland species. Nevertheless, the reedbeds need to be controlled to prevent them from covering the pond, and encroachment of scrub would, if unmanaged, lead to the loss of wetland communities.

## Conserving the ecology in a changed reserve

The most significant influence in recent years has been the marked changes to the reserve's surrounds that will see it become part and parcel of a major new residential, commercial and retail quarter of London. Visitor numbers will rise significantly, placing an increasing pressure on the wildlife that live in and utilise CSNP.

Despite welcome improvements (in particular in-stream) to parts of the Regent's Canal, there has been a loss of terrestrial habitats to stretches of the tow-paths to the north and east of the reserve which will have reduced connectivity to a wider network of suitable habitats. In addition new greenspace in King's Cross central is – and will be - largely formal and focused on meeting visitor needs; high levels of disturbance are unlikely to allow these spaces to serve as parts of an ecological network for all but the most tolerant of species. Within Camley Street Natural Park itself, the

[3] http://www.wildlondon.org.uk/news/2015/02/16/camley-street-natural-park-awarded-uk-mab-urban-forum-wildlife-award-excellence

northern most section will be significantly impacted by the construction (and operation) of a new footbridge rising from an entrance on Camley Street (adjacent to the reserve's gate). Whilst some of the impacts will be mitigated by planting, use of the bridge will effectively make this a very busy part of the reserve. Effectively up to 15% of the reserve could lose its wildlife interest, however there is potential to further reduce this loss through well planned habitat interventions.

The replacement of the existing buildings in CSNP with new facilities present an opportunity to secure enhancements to the reserve's ecology and create new habitats. A focus will be to concentrate visitor activity to one end of the reserve, and ensure the most sensitive habitats and species can be better protected and/or managed. For example, realignment of some of the paths will allow some new areas of non-intervention to be created. Indeed, future management approaches, as will be outlined in the 10 year management and maintenance plan, might need to take a more radical approach to ensure the CSNP's ecology is not compromised as the reserve moves into the next stage of its life.