Standing Water Habitat Action Plan

1. Aims

Aim 1: To develop a strategic, sustainable approach to the conservation of standing waters in London through mapping the distribution and prioritising conservation action

Aim 2. To maintain the number and quality of exemplar sites as identified under Aim 1 and ensure that priority sites are restored and maintained by 2015

Aim 3. To increase knowledge and understanding by land managers and the general public regarding of standing waters and their associated habitats and species

2. Introduction

2.1 Definition and scope

The Standing Water Habitat Action Plan for London (SWHAP) includes all standing water bodies, contrary to flowing waters, i.e. rivers, ditches with flowing water and

tidal margins. This plan refers to open water (permanent or semi-permanent[1]), which may contain submerged floating-leaved and emergent vegetation as well as associated fauna. It does not cover garden ponds, which are covered (with the assistance of SWHAP Working Group) by the Garden HAP. This HAP corresponds to the UK BAP priority habitats 'eutrophic standing water' aquifer-fed naturally fluctuating water bodies' and 'ponds' (in preparation).
Examples include:

- Reservoirs
- Ornamental lakes
- Gravel pits
- Ponds
- Ox-bow lakes
- Canals
- Ditches
- Standing flood waters

Generally, a greater variety of plants and animals are adapted to live in standing waters compared to flowing waters. Standing waters are used by plants and animals for different reasons. For example, some organisms spend their entire life in water, other requires water only for a part of life cycle and other will use water as a food resource and for bathing or drinking.

Open standing water represents one of the most diverse of all ecological habitats in London. Reservoirs, lakes, ponds and canals can be seen as habitat stepping stones and corridors for the local urban biodiversity. In the urban environment, canals and ditches provide the linkages for aquatic and terrestrial biodiversity between suitable habitat patches. These habitats will be increasingly important to build species resilience against climate change. To this end, this plan suggests developing a strategic, landscape scale approach to conservation of standing water in London.

Large reservoirs and lakes are particularly important for wintering wildfowl. In the spring and summer they support breeding wildfowl, terns and waders. It is important to recognise that within a single large water body there might be several types of micro-habitats, such as deep open water, shallow open water with abundant submerged vegetation, emergent vegetation (i.e. reed, bulrush) as well as carr (usually willow and alder) and wet woodland. Maintaining the presence of each of the above features is a management challenge, but crucial for maintaining the high biodiversity value of these water bodies.

Ponds and small lakes are particularly important for amphibians and reptiles such as frogs, toads, newts and grass snakes. These smaller, often sheltered water bodies hold a huge variety of invertebrates. Most spectacular are damselflies, dragonflies and water beetles. Standing water generally support larger variety of insects compared to dry habitats. These insects are important food sources for birds and bats, especially during prolonged dry weather conditions in late spring and summer.

[1] Semi-permanent means persisting for at least 4 months.

Aquatic habitats are incredibly vulnerable to environmental and human related pressures. Some of the aquatic organisms are very sensitive to changes in water quality, natural succession, disturbance and alien species. For example the presence of certain species of fish will place considerable strain on the survival of Great Crested Newt larvae in ponds. In urban environment open standing waters are especially vulnerable to vandalism, pollution, unsustainable management and disturbance. Some standing water will be lost to the development. Therefore, it seems particularly important to engage with audiences such as housing association and developers to create new water bodies within developments.

Standing waters are central to public enjoyment in London's parks, gardens, school grounds, golf courses and other green spaces. They are used for boating, angling, wildlife watching, family picnics and other recreational and relaxation activities. This provides a huge opportunity for education and awareness rising. On the other hand, it is also a challenge to protect water bodies for biodiversity. Good demonstration projects are needed to show how this balance can be achieved.

Against this background, this action plan sets out targets and actions to be undertaken by the partner and other organisations to increase the area and quality of standing water in Greater London.

3. Current Status

All London's water bodies are of artificial origin. The London's habitat audit assesses the standing water resource (lakes, ponds and gravel pits) for 1834 water bodies covering approximately 1744 ha. The 80 km network of canals covers approximately a further 260 ha. This information is based on the 1984-85 habitat survey. In June 2008 new information will be available through GiGL for 32 boroughs. This data will include all types of standing water, including ditches and all small ponds and therefore the above estimations of the area coverage are probably underestimated.

Reservoirs:
There are 10 reservoirs in London covering the area of 697 ha. Some of these water bodies are recognised as internationally and nationally important (see section 5.1 for more information). They are particularly important for breeding and wintering waterfowl. Significant populations of wintering wigeons, mallards, gadwall, shoveler, tufted ducks, teal, coot and great crested grebes benefit from the plethora of microhabitats ranging from deep water and shallow lagoons to tall emergent vegetation and terrestrial habitats around the reservoirs. In the breeding season the numbers of waterfowl decrease, but small islands and concrete features around reservoirs are used by common terns and waders such as ring plovers and redshanks. Reedbeds and other swamp vegetation support, among others, reed buntings, reed warblers, sedge warbler and water rails.

Some reservoirs are used for water sports and other recreational activities, such as angling, jogging/walking. These activities can cause a significant disturbance to waterfowl, especially uncoordinated boating and onshore activities carried out in quiet, isolated bays used by wildfowl. Another major issue is nutrient enrichment leading to algal blooms. Apart from wider ecological consequences of eutrophication,

prolonged periods of algal blooms can decrease the visibility under the water and consequently the efficiency of feeding for diving ducks *Aythya spp.*, grebes and cormorants.

Ornamental Lakes and Ponds:
There is no a clear distinction between lakes and ponds in London apart from perhaps the size and the purpose of creation. The draft National Ponds HAP includes water bodies as large as 2 ha. However, for better distinction from London's lakes, widely adopted for ponds a size criterion of 1 ha seems to be more adequate. Moreover, there is a difference in the origin of lakes and ponds. Ornamental lakes were usually created as part of the landscaping of former country estates whereas ponds were traditionally used as the source of water for grazing animals in farmland.

Most of farmland ponds (i.e. 80%) have been lost to built development however, some still persist in the outer boroughs especially those across the north of London from Hillingdon to Havering. Remaining ponds support rich flora and fauna, including great crested newts and rare species of dragonflies and damselflies.

Lakes and ponds located in London's green spaces serve as a recreational and aesthetic resource. However, nutrient enrichment is a major issue here, magnified perhaps by high densities of water birds and in some cases overstocking with bottom dwelling fish, such as carp. Artificial banks and poor terrestrial habitat are also important issues to address.

There has been some conservation initiatives at a borough level aimed to improve and create standing water habitats in London. For example, selected lakes were restored as part of a *Life Nature* project carried out in several boroughs in late 1990s. The lake restoration guidelines, which were one of that project's outputs, will be updated as part of the implementation of this plan.

Canals were the motorways of their day constructed to meet the transport needs of the Industrial Revolution and their construction made a major impact on the 18th and 19th century landscapes. However, once established, canals soon developed their own flora and fauna and today many are designated as important wildlife sites at local, national and international level.

The London canal network was cut between 1767 and 1830 to provide a transport link within London and between the capital and the industrial towns of the Midlands and the North. This Habitat Action Plan covers artificial waterways for which British Waterways London has management responsibilities; Grand Union Canal (Main Line and Paddington Branch), the Regent's Canal, the Hertford Union Canal, the Limehouse Cut and Brent feeder. Although initially a success, their importance waned with the advent of railways in the latter part of the 19th century and diminished with the extending road network after the Second World War.

Today, the network of canals has developed into a unique asset for nature conservation in London, whilst becoming an increasingly important amenity and recreational resource. The canal network brings linear wetlands into the heart of London, creating an important wildlife resource within an otherwise urban area. This

proximity to London's human population creates a unique opportunity to provide public access to wildlife.

London has approximately 80 km of canal corridor and 4.5 km of feeders. The canal system passes through 12 boroughs; Brent, Camden, Ealing, Hackney, Hammersmith & Fulham, Hillingdon, Hounslow, Islington, Kensington & Chelsea, Tower Hamlets and Westminster.

Up to date information about the plant and animal communities of the London canals is currently incomplete. The majority of the system was last comprehensively surveyed in the 1980s, by the London Wildlife Trust, and this data provides a useful base-line. There have been subsequent borough re-surveys by the London Ecology Unit and most recently by the GLA.

Although aquatic and emergent vegetation is limited in distribution, good diversity occurs where conditions are suitable. Species include spiked water-milfoil, rigid hornwort, hemlock water-dropwort and flag iris. These integral wetland habitats support a great variety of fish including roach, bream, carp and tench and invertebrates such as mayflies, dragonflies and damselflies.

These environments provide feeding opportunities for birds which include the kingfisher and reed warbler and bats including the Daubentons and Pipistrelle who may find roosting sites in the built structures associated with the waterways. The water vole is still present in a few locations.

As well as wetland habitats, the canal corridor also supports a range of terrestrial features including towpath verges, woodland, scrub, cuttings and embankments. Tunnels, bridges, walls and other structures can support specialised plants and animals, which include the black redstart and sand martin.

Ditches: Farmland ditches have a potential to support a variety of aquatic plant species and animals. Farming around London can potentially have a demonstrative character for extensive and more traditional land management, as land owners manage land on an amateur basis as a hobby, e.g. for horses, etc. Ditch management and creation of small dew ponds can be part of this management.

4. Specific Factors Affecting the Habitat

4.1 Water Quality

Discharges from surface drainage can have a negative effect on aquatic wildlife. This can be particularly serious when summer storms dislodge organic matter trapped in gully pots. Not only does it add contaminants to the water body but the resulting depletion of oxygen can be very damaging to animal life.

Unconsented effluent and grey water can reach watercourses through wrongly connected drains whilst treated effluent is discharged directly from sewage treatment works. Sensitive organisms disappear and water bodies may reach a relatively stable but biologically impoverished state (so called stagnant condition).

Leaky boat engines, and spillages when refuelling, contribute to the total pollution load, and this is exacerbated when (contrary to recommended good practice) some boaters discharge oil-laden bilge water and cooking oil.

4.2 Nutrient enrichment

Nutrient enrichment can be caused by the surface and drift pollution of fertilisers, detergents, wildfowl excreta, leaf litter and organic debris as well as the run-off from land drainage. This leads to excessive plant grow and algal blooms, the decay processes and shortage of dissolved oxygen. Algal blooms can lead to limited light conditions in the water body. On top of the lack of dissolved oxygen, this further limits the development of aquatic plants.

4.3 Light pollution

Light pollution significantly decreases the value of standing water for foraging species such as bats. This form of pollution is increasing across Greater London and is likely to influence a number of the standing waters.

4.4 Habitat Loss

The use of ‘hard’ bank protection, such as steel piling, can have a significant impact on waterside habitats and associated species such as water voles, sand martins and kingfishers and is restricting distribution of animals by creating a barrier within a green corridor. Inappropriate timing and phasing of dredging can also impact on the aquatic and bankside wildlife.

Intensive mowing regimes and the widening of towpaths results in the loss and deterioration of verge grasslands. The widening of paths and increased hard surfacing results in the loss of waterside grassland and bank habitat.

Unsympathetic canal-side development results in the loss of and inhibits the continued success of terrestrial and aquatic habitat. Natural habitats are often replaced with inappropriate landscaping schemes. New housing developments beside canals can cause increased disturbance to wildlife. The activities of nocturnal wildlife, particularly bats, may be inhibited through increased lighting along towpaths and developments adjoining canals.

In some cases, i.e. flagship ponds and lakes, natural succession can be seen as a problem. Natural encroachment of woodland may create excessive shading and nutrient enrichment through the input of leaf litter. As the water body matures, debris accumulates at the bottom of the water body, which increases the thickness of the sediment. This in turn leads the succession towards more terrestrial types of vegetation, such as reedbed, carr and eventually wet woodland. This process will rarely affect large water bodies where to some extent the natural succession should be encouraged. This process is usually more detrimental for small and isolated water bodies.

An appropriate level of grazing is important to maintain the open condition of aquifer fed naturally fluctuating waters. High stocking levels can result in over-grazing and poaching within the drawdown zone, but complete cessation of grazing could result in the invasion of rank vegetation.

The long-term effect of land-use change is an increase in the risk of pollution and of siltation, which can smother fish spawning sites and damage aquatic vegetation. These problems are exacerbated by the removal of waterside vegetation and reed swamp, which are effective barriers to particulate matter and act as sinks for nutrients.

4.5 Invasive and non-native species

Colonisation by certain non-native and/or invasive plant and animal species can overwhelm the development of other species and can degrade the habitat leading to the reduction of overall biodiversity. These include Canada and Greylag Goose, Coot, Japanese Knotweed, Floating Pennywort, Giant Hogweed, New Zealand Pigmyweed, exotic crayfish species, Chinese Mitten Crab, Red-eared Terrapin, American Mink, Gold fish and Zander, Ruddy Duck and Coot.

Non-native species are transported through several ways: through wind, moved soil, attached to animals and unfortunately mostly through people recklessly releasing them.

4.6 Disease

Anaerobic conditions resulting from nutrient-loading of water bodies can encourage the development of the bacterial spores *Clostridium botulinum*. The toxins of the bacteria can be ingested by waterfowl and may cause the death of significant numbers of birds.

Ranavirus occurs in private gardens affecting local populations of frogs. The causes of Ranavirus are not fully understood. The disease affects simultaneously large numbers of frogs resulting with sometime large numbers of dying animals. The disease can be carried by fish and potentially by grass snakes.

4.7 Water level maintenance and abstraction

Shortage of water can be a problem with water bodies that have a negative water balance; that is when evaporation and leakage exceeds the rate of replenishment.

The small size water body holds a greater concentration of nutrients leading to eutrophic conditions and exposes aquatic flora and fauna to the atmosphere potentially causing damage to their assemblages.

Water quality can also be influenced by irrigation of crops.

4.8 Public perception and vandalism

Open water with artificial banks can be perceived as lacking any substantial biodiversity value, as may small areas of reedbed and other marginal vegetation, particularly because their associated wildlife is typically elusive. This leads very often to perceiving water bodies as a place to dump rubbish.

4.9 Recreation

The passage of powered boats along canals can cause physical damage, wave wash and increased turbidity, all of which affects its capacity to support plants and animals. Habitat continues to be lost to continual service improvements and increasing the capacity of the waterway to accommodate the rising number of boats, including for example, use of hard bank protection, erosion and leakage controls, moorings and marina developments. Similarly, there is pressure to widen towpaths using hard surface finishes with consequent loss of towpath grassland and canal bank habitat.

Disturbance can negatively affect bird populations and trampling can degrade marginal vegetation. Boating and other water motor sports are particularly disturbing to birds and in the breeding season can affect the breeding success of wildfowl and other water birds.

The introduction of fish, the removal of predators, and the manipulation of existing fish stocks for recreational fishing leads to the loss of natural fish populations and may affect plant and invertebrate communities. Heavy stocking of bottom-feeding fish such as carp can cause turbidity and accelerate the release of nutrients from sediments. This has caused major problems of enrichment in some eutrophic water bodies.

4.10 Development Pressure

There is a strong trend for the redevelopment of waterside locations, the presence of water enables the developers to charge a premium for the units. However there may be an adverse effect on water bodies, which remain unrecognised as many of the associated species are not protected and therefore do not warrant specific surveys with impact assessments.

Shading is often a large factor which makes the environment less favourable for vegetation both aquatic and terrestrial to establish and thrive.

Often a single development cannot be accused of causing detriment but has a cumulative effect.

The compact nature of developments means there is often little open space to accommodate new standing water bodies and also places pressure on the adjacent ecosystem to accommodate increased recreational use. This new use often brings higher expectations and demands for a safer environment which can conflict with the best management of the site.

Developers often default the pressure to stay green by putting in conditions to improve the surrounding area which may not be for the best for the environment or the most suitable.

4.11 Climate Change

A substantial change in water supply would alter the character of water bodies and a rise in temperature would produce wide-ranging effects such as changes in the water quality, macrophyte, algal and invertebrate communities.

A long term decrease in rainfall could alter groundwater regimes and may ultimately depress levels in the underlying aquifers to such an extent that these water bodies cease to fill with water. All efforts to remedy the situation may then be ineffective.

Warmer winters and milder conditions characteristic for urban habitats alter behaviour of animals (increased activity), which would otherwise hibernate. This can lead to losses of energy and consequently affecting the productivity in the breeding season. This process has been well documented for common toads.

4.12 Lack of knowledge about the standing water distribution and ecological value

Recognising the abundance and quality of the standing water in London is the first step to protecting this habitat. Targets such as maintaining a net biodiversity value of standing water habitat in London could not be fully realised without baseline information on where the standing water is, what is its ecological quality and what are the threats.

5. Current Action

5.1 Legal Status

Large reservoirs and lakes can have a Site of Special Scientific Interest (SSSI) designation, additionally to international designations, i.e. Special Protection Areas (SPAs) and Ramsar. The table below presents the list of protected standing water sites designated for their biodiversity value:

Reservoir/ lake	Borough	Designation	Target species
Brent Reservoir	Barnet	SSSI	Breeding wetland birds
Chingford Reservoirs	GLA/Essex	SSSI	Wintering wildfowl
Ingrebourne Marshes	Havering	SSSI	Freshwater marshland
Kempton Park reservoirs	Hounslow/Spelthorne	SSSI	Wintering and breeding wetland birds
Mid Colne Valley	Hilingdon, South Bucks DC, GLA, Buckinghamshire Couty Council	SSSI	Woodland and breeding wetland birds, wintering wildfowl
Ruxley Gravel Pits	Bromley	SSSI	Breeding wetland birds, wetland plant communities
Walthamstow Reservoirs	Hackney, Haringey, Waltham Forest	SSSI, SPA, Ramsar	Heronries, breeding and wintering wildfowl
Wortham Reservoir		SPA/ Ramsar/ SSSI	

Numerous smaller water bodies, such as ponds, ditches and oxbow lakes are already located within larger SSSIs and SPA/SAC sites and therefore are protected

by default. Management of these water bodies is focused on achieving favourable conservation status.

All of London's canal system has been identified as a Site of Metropolitan Importance for Nature Conservation. Sites of Borough Importance for nature conservation (grade I and II) have also been created. Several protected species are associated with canals in London, including kingfisher, water vole, bats, otter and reptiles. The Great Crested Newt is more associated with smaller ponds and lakes. This species receives the highest level of protection at European and national level. Thus great crested newt ponds need to be retained. There is licensing procedure for ponds affected by development.

5.2 Mechanisms targeting the habitat/ species

The English planning system imposes a number of statutory duties upon planning authorities, which imposes carrying out impact assessment of planned developments on priority habitats and species, in particular Planning Policy Statement (PPS9). For example, as a statutory consultee British Waterways consider every planning application for its impact on the canal environment and discussions are often undertaken directly with the developers and their consultants to make improvements to the scheme and liaise with the council to obtain necessary conditions. Wildlife Trust, RSPB, Buglife and other NGOs assess planning applications, which may affect sites of conservation interest.

6. Flagship Species

Common Name	Latin	Brief Description
Northern Pike	*Essox lucius*	Carnivorous fish typically present in brackish and freshwaters of the northern hemisphere. They are also known by the literal translation of their Latin name, "water wolf".
Common Frog	*Rana temporaria*	Common frogs breed in shallow, still, fresh water such as ponds, with breeding commencing in March. The adults congregate in the ponds, where the males compete for females.
Water Vole	Arvicola terrestris	Water voles have rounder noses than rats, deep brown fur, chubby faces and short fuzzy ears; unlike the rat their tails, paws and ears are covered with hair.
Dragonfly	*Odonata*	Dragonflies typically eat mosquitoes, midges and other small insects like flies, bees, and butterflies. They are therefore valued as predators, since they help control populations of harmful insects.
Kingfisher	*Alcedo atthis*	It is a bird of the waterside, since it feeds entirely upon aquatic animals. It is frequent beside lakes, ponds, canals or dykes and streams. In winter, especially when inland waters are icebound, it may move to tidal marshes and the shore, taking its stand on the mussel or limpet covered rocks and diving into the shallow pools.
Bats	*Chiroptera*	British bats are insectivorous and therefore they feed close

		to standing water, especially canals.
Heron	*Ardea cinerea*	This species breeds in colonies in trees close to lakes, the sea-shore or other wetlands, although it will also nest in reed beds. It builds a bulky stick nest. It feeds in shallow water, catching fish or frogs with its long bill. Herons will also take small mammals and birds. It will often wait motionless for prey, or slowly stalk its victim.
Common reed	*Phragmites australis*	It commonly forms extensive stands, up to a square kilometre or more (known as reed beds); where conditions are suitable, it can spread at up to 5 m or more per year by horizontal 'runner' stems, which put down roots at regular intervals. The erect stems grow to 2–6 m tall, with the taller plants growing in areas with hot summers and fertile growing conditions.
Yellow Water Lily	*Nuphar lutea*	An aquatic plant native to Eurasia. It grows in eutrophic freshwater beds, with its roots fixed into the ground and its leaves floating on the water's surface.
Gadwall	*Anas strepera*	The breeding male is a beautifully patterned grey, with a black rear end and a brilliant white speculum, obvious in flight or at rest. In non-breeding (eclipse) plumage, the drake looks more like the female. The females are light brown, with plumage much like a female Mallard. They can be distinguished from that species by the dark orange-edged bill, smaller size, and white wing speculum.
Shoveler	*Anas clypeata*	This species is unmistakable in the northern hemisphere due to its large spatulate bill. The breeding male has a green head, white breast and chestnut belly and flanks. In flight, pale blue forewing feathers are revealed, separated from the green speculum by a white border.

7. Aims targets and Actions

Aim 1: To develop a strategic, sustainable approach to the conservation of standing waters in London through mapping the distribution and prioritising conservation action

Exemplar *standing waters are of outstanding quality and they are managed up the highest standard. These sites will be used to maintain the quality of the habitat and for publicity*

Priority *standing waters have a potential for achieving outstanding quality, but require some restoration or management work. These sites will be used to achieve the progress (or at least keep up with the loss of the habitat)*

Lead organisation is marked in bold.

Target 1.1: Collate the data on standing water resources, their ecological value to prioritise conservation action using GIS

Action	Target Date	Lead	Other Partners

Develop and use GIS-based maps to analyse the existing distribution, ecological value and level of protection for standing water in London	2008	**FL**, LWT, GiGL, LBP	NE, GLA, TW, BWL, RSPB, TRP, LAs, WWT, LNHS
Develop criteria for a habitat condition assessment framework and apply to sites identified in the previous action	2008	LWT, **FL,** GiGL, LBP, WG	NE, GLA, TW, BWL, RSPB, LVPRA, TRP, LAs, WWT,
Select one **exemplar** site from each main type of SW and identify **priority** standing water sites where conservation action is needed	2009	LWT, **FL**, GiGL, LBP	NE, GLA, TW, BWL, RSPB, LVPRA, TRP, LAs, WWT, LBBF

Target 1.2: Survey and monitor all identified exemplar and priority standing water bodies

Action	Target Date	Lead	Other Partners
Develop standing water monitoring guidelines and circulate to site managers	2009	**WG**	-
Continue and initiate biological and chemical water quality of standing water on a regular basis and make data available to GiGL	Ongoing	EA, **BWL,** WAND, TRP	-
Ensure that GLA surveys include appropriate condition assessment for standing waters	2009	**GiGL**, GLA	WG

Aim 2. To maintain the number and quality of exemplar sites as identified under Aim 1 and ensure that priority sites are restored and maintained by 2015

Target 2.1: Appropriate management and promotion of exemplar and priority sites established by 2013

Action	Target Date	Lead	Other Partners
Maintain appropriate management and monitoring of exemplar standing waters	Ongoing	**Site managers**	WG
Implement appropriate management and monitoring of priority standing waters with land managers through the development or adoption of management plans	2013	**Site managers**	WG

Target 2.2: Restore selected priority sites by 2015

Action	Target Date	Lead	Other Partners
Restore priority sites, where it is not feasible to create new standing water habitats and where the long-term management is ensured	2015	**Site managers**	WG

Target 2.3: Create at least 33 new ponds per year (on average one pond per borough), excluding those in private gardens up to 2015

Action	Priority/ Date	Lead Partners	Other Partners
Actively promote and disseminate information about schemes that promote pond creation, such as the Million Ponds Project, Grantscape or relevant HAPs and SAPs and other mechanisms/ initiatives identified in Target 1.3	2008 to 2015	**FL**, LWT, TW, EA, LAs	BWL, RSPB, TRP, LVPRA
Provide data on the progress of pond creation to GiGL			

Target 2.4: Effectively manage invasive and non-native species

Action	Target Date	Lead	Other Partners
Initiate a strategic approach to control aquatic weeds	2009	**BWL**, NE	EA
Identify priority standing waters with invasive/ non-native species (through Targets 1.1 and 1.2) and take action to eradicate or lessen their impact	2015	**Site managers**	WG?
Provide ongoing advice to land managers about managing invasive and non-native species	Ongoing	**WG**	-

Target 2.5: Carry out habitat improvements for London priority species

Action	Target Date	Lead	Other Partners
Create 3 kilometres of emergent and marginal planting (this can include softening of hard landscaped edges and other bankside enhancements around water bodies)	2015	**Site Managers**	WG
Carry out habitat enhancements for other recognised priority species at standing water sites as appropriate at each site (e.g. bats, water voles, herons and sand martins and kingfishers)	2015	**Site Managers**	WG

Aim 3. To increase knowledge and understanding by land managers and the general public regarding of standing waters and their associated habitats and species

Target 3.1: Develop and set up Standing Water HAP pages on LBP website with clear links to GiGL

Action	Priority/ Date	Lead Partners	Other Partners
Develop and maintain an interactive website (aim: to provide comprehensive information about standing water and provide a web interface to submit data from the general public)	2010	**FL,** GiGL	WG

Target 3.2: Produce best practice guidelines and a follow up seminar for managing standing waters by end of 2011

Action	Target Date	Lead	Other Partners
Establish target audience and the scope	2008	WAND	FL, LWT, GLA, NE
Write and distribute the guidelines and evaluate the impact	2010	WAND	FL, LWT, GLA, NE, WWT
Organise a seminar for practitioners	2011	WAND	FL, LWT, GLA, NE

Target 3.3: Encourage and provide advice to the general public about the value and logistics of creating ponds in schools, parks and other public places

Action	Priority/ Date	Lead Partners	Other Partners
Produce at least 3 media coverage pieces every year from 2008	Ongoing	**BWL, LWT**, FL, GLA, LVPRA, NE	TW, BWL, RSPB, TRP, LAs, WWT
Liaise with the Garden HAP to promote creation and provide advice on wildlife friendly ponds in gardens and public places through the website (including native species, spawn movement, buffer zones, etc)	2009	**FL**, LWT	GLA, TW, BWL, RSPB, LVPRA, TRP, LAs, WWT
Promote grant schemes or other mechanisms that encourage the creation and restoration of standing waters and make suggestions for any improvements to existing options to encourage the creation of more water bodies	2009	**FL**	LWT, GLA, TW, BWL, RSPB, LVPRA, TRP, LAs, WWT
Identify and influence target sectors with the potential for managing, improving or creating biodiversity-rich water bodies, such as housing associations, anglers, developers, businesses and others	2009	**FL**, NE, LWT,	WG

Relevant Action Plans

London Plans

Wasteland, Tidal Thames, Reedbeds; Rivers & Streams; Gardens, Parks and Public Spaces

Bats; Water Vole; Grey Heron; Sand Martin; Black Poplar, Black Redstart, Reptiles

Key References

British Waterways (2000). *British Waterways and Biodiversity – A framework for Waterway Wildlife Strategies.*

London Ecology Unit (From 1984). *Ecology Handbooks.*

The London Wildlife Trust and British Waterways (1985). *The Wildlife Habitats of the Regent's Canal and Hertford Union Canal, London.*

GLA (2002) Connecting with London's nature. The Mayor's Biodiversity Strategy.

Abbreviations

LAs - Local Authorities
LBBF - London Boroughs Biodiversity Forum
LBP - London Biodiversity Partnership
LNHS - London Natural History Society
LVPRA - Lee Valley Park Regional Authority
LWT - London Wildlife Trust
NE - Natural England
RP - Royal Parks
RSPB - Royal Society for the Protection of Birds
TW - Thames Water
WAND - Wandsworth Borough
WWT - Wildfowl and Wetlands Trust

Contact

Daniel Piec
Froglife
9 Swan Court
Cygnet Park
Hampton
Peterborough PE7 8GX

Tel : 01733 558844
Email : Danielpiec@froglife.org
Web : www.froglife.org