

Fryent County Park Management Plan: Section 11

PONDS

Photos: Coneyvale



Richards West



Little Hillcroach



Long Down



Ponds provide a habitat for a diverse range of wildlife and are features in the landscape. Ponds can be formed naturally from the local geology, but older ponds at Fryent Country Park and mainly old farm ponds, created, probably centuries ago, to provide water for livestock at a time before mains water was available.

At Fryent Country Park several of the old farm ponds have been restored since 1982; and new ponds have been created. The 'Fishpond', the largest pond within the Park is situated at the top of Barn Hill and was dug in the late 1700s, with the pebbly material quarried to create a bowl that became a feature of the Humphry Repton landscape. There are approximately thirty ponds in the Park, though some are seasonal. The surface geology of Fryent Country Park is of London Clay. Clay holds water well without the need for pond liners, but as the water table drops in dry weather, many ponds will become dry and will lose water too through evaporation. That some ponds dry out in summers is not necessarily bad for wildlife, for much pond life has life cycles that are partly aquatic while at other times of the year they live in nearby meadows, hedgerows and orchards. The 'draw-down' zone, the wide, gently-sloping pond margins, is considered to be particularly rich in wildlife.

Deep ponds are better for some species of wildlife, but the maximum depth of ponds at the Country Park need not exceed one metre. The sides should slope or step gently towards the deepest point.

The natural vegetation of ponds at Fryent Country Park includes plant species such as: Water Plaintain, Celery-leaved Buttercup, Spearwort, Starworts, Water Crowfoot, Hornwort, Branched Bur-reed, Rushes, Potamogeton species, Sedges, Lily, Float Grass, and Water Mint.

Task	Notes
Manage the range of ponds at the Country Park	
<p>Pond design: Nationally guidelines on pond habitat management have shifted during recent years, see the Freshwater Habitats Trust: http://freshwaterhabitats.org.uk/projects/million-ponds/pond-creation-toolkit/</p> <p>Key points include the need for:</p> <ul style="list-style-type: none"> • Shallow, gently sloping sides. • Wide draw-down zones, and acceptance of fluctuating water levels. Pond water levels fluctuate with the seasons and with the occasional dry summers. Much pond wildlife is adapted to these changing conditions. • Ponds can be created in clusters. • No introductions from other ponds - natural colonization preferred. • Non-intervention subsequently - letting ponds develop through succession. (This approach is more practical in natural situations, but less-so in parks). 	
<p>Non-intervention: This is the guidance because of the risks of introducing invasive plants and of transferring diseases of amphibians. The former practise of Introducing plants, spawn, wildlife and mud samples to new or restored ponds is discouraged. Ponds should be left to enable species to colonise naturally. Similarly, management of pond plants should be minimised - where possible to allow natural succession to take its course. This is easier where different plants come to dominate at different ponds, and where there is space for new ponds to be created nearby. As a matter of bio-security, clean tools between working on one pond and another.</p>	
<p>Invasive species: However, invasive species should be managed or removed if possible. Those may include: species that tend to spread prolifically, for example, Yellow Flag Iris, Greater</p>	

Reedmace, Canadian Pondweed, Parrots Feather, Azolla; and aquarium species.	
Draw-down zones: where digging work is undertaken on ponds, aim to reduce the gradients of slopes, so as to increase the draw-down zone.	
Depths and pond shape: A range of pond depths and perimeter profiles can improve diversity.	
Restoration: when restoring old farm ponds, be aware of and plan for the possibility of archaeological interest. Botanically, some plant species have the ability to regenerate from the buried seed-bank, giving rise to the term 'ghost-ponds'.	
Excavation is more efficient if undertaken in dry weather. Avoid working on the whole of an existing pond in any one year.	
Little Hillcroach Pond has a reed-bed.	
Fishpond: Maintain 75% or more of open water, control reeds, while maintaining cover for breeding water birds. If growth of reeds and Yellow Flag Iris becomes too extensive, consider extraction with a mechanical digger. Restore and maintain the open space of acid grassland around the Fishpond, as far as practical to the original landscape design of Humphry Repton.	
Ponds with restoration potential include: Great Cowlays Mid and Little Cowlays West: clear scrub Great Hydes: enlarge the pondlet to the east Preston Eastfield Pond: restore.	
Amphibians: The ponds provide ideal conditions for populations of Common Frog, Smooth Newts, Common Toad and dragonflies. The possibility of (re-) introducing Great Crested Newts has been investigated: the habitats of the Park are considered ideal, but there are regulatory issues to be considered too, principally of testing that both donor and receptor sites are free of disease.	
Frog spawn survey: A long-running survey of frogspawn as an estimate of the adult population, is held annually at Fryent Country Park. Record also the number of ponds holding water at spawning time, at the driest point of the summer, and of major work on ponds.	

More information

See also the Management Plan sections on 'Streams'.

Barn Hill Conservation Group. www.bhcg.btck.co.uk

Pond creation guidance from the Freshwater Habitats Trust:

<http://freshwaterhabitats.org.uk/projects/million-ponds/pond-creation-toolkit/>

Pond Conservation / Freshwater Habitats Trust. The Pond Book.

The Conservation Volunteers. Waterways and Wetlands.

Williams, L.R. 2006. Restoration of ponds in a landscape and changes in Common Frog (*Rana temporaria*) populations, 1983-2005. *Herpetological Bulletin* (2005) 94: 22-29.

Wilson, Julie. 1999. *Dragonfly survey of Fryent Country Park*. Unpublished, University of Hertfordshire, B.Sc. degree project.