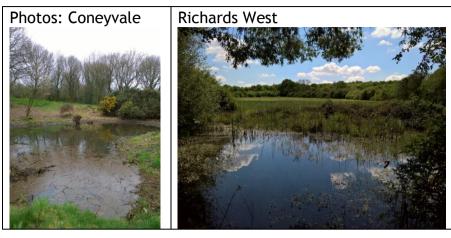
Fryent County Park Management Plan: Section 11

PONDS





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	
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/	
Key points include the need for:	
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).	
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.	
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	

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.	
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.