Creating the ultimate... *farmland wildlife pond*

Jess Brooks is our farmland biodiversity advisor for southern England and has in-depth knowledge of terrestrial and freshwater habitats.

Well-managed ponds support a vast range of wildlife, including aquatic and terrestrial invertebrates, pollinating insects, amphibians, reptiles, bats, wetland plants, farmland birds and mammals. Pond creation and restoration are hot topics, because over the last century the majority of farmland ponds have been lost or degraded due to changing agricultural practices.

Where possible, site your pond near to similar habitats such as existing ponds, ditches and wetlands. A low-input setting is best for pond creation, but if sited in an arable or improved grassland field, make sure the pond is buffered from inputs such as fertiliser and pesticides. Dig a 'test pit' if you are unsure of the soil drainage properties, but avoid connecting a wildlife pond to running water, as it can introduce pollutants and quickly fill up the pond with silt. If you want your pond to deliver other services in addition to wildlife attraction, such as collecting run-off from risky fields, you may need to site an additional pond uphill of your clean wildlife pond to trap and treat water and soil.

For more advice please contact us on 01425 651013.

50% of ponds were lost in the 20th century and 80% that remain are in a poor state.

Two-thirds of all freshwater species are supported by ponds.

Your pond should look after itself for the first few years. Ideally aim to have a network of ponds in varying stages of development, as this supports the largest diversity of plants and animals. If you need to dredge out accumulated plant material and silt, do so in late autumn when animals have had a chance to complete their life cycle, and if it's your only pond, leave a third or quarter untouched to retain habitat diversity. Don't forget to leave dredged plants on the bank for a day or so before disposal, so that anything removed can scuttle back in.

As the pond fills you should start to see plants and animals colonising, but you might need to plant some native vegetation in the spring. Collect seeds or plants from nearby wet areas with the landowner's permission, making sure to avoid protected/invasive species. Don't use garden centre plants as they may be contaminated with non-native species. Here are a few suggestions:

- Submerged zone oxygenators: hornwort, spiked water-milfoil.
- Floating surface cover: starworts, broad-leaved potamogeton.
- Tall emergent cover: irises, branched bur-reed, reed canary grass.
- Marginal emergent structure: water forget-me-not, watermint, brooklime, soft rush.
- Bank top: hemp agrimony, purple loosestrife, meadowsweet.

Once you have settled on a site, you will need to run your plans past the local planning authority. It may advise you to consult other parties: for example, you need to notify your neighbour and the Environment Agency if the pond is likely to affect drainage quantity and pathways, and you should do an underground service search so you don't rupture a gas pipeline or sewer. Autumn is a good time of year for construction as machinery access is a key consideration and you are less likely to harm or disturb wildlife breeding habitats. A pond created in autumn can also fill up with rain over winter.

Peg out the perimeter, aiming for an irregular outline to maximise the marginal area. Have a plan ready for dealing with the topsoil on site: as it's nutrient-rich, don't store it nearby or create an embankment around the pond. If you construct near an arable field after harvest, spread it thinly on the field and incorporate at the next cultivation for a yield boost.

Create a variety of depths as many species need shallow water habitat, while deeper areas provide refuge in hot weather. As a guide, the margins should slope gently, to a maximum depth of 1.5m and dig a few shelves and pools for added habitat diversity.

The drainage properties of the soil will determine whether you need to create an impermeable catchment with a plastic liner or puddled clay. Depending on the catchment area and size of the pond, it should fill reasonably quickly in winter, but you may need to artificially fill it in a spell of unusually dry weather to stop the base cracking and leaking.

More information

- Further details and guidance are available in the Freshwater Habitats Trust Pond Creation Tool Kit, available at www.freshwaterhabitats.org.uk or contact the Advisory Service for guidance on biodiversity and game-related queries advisory@gwct.org.uk.
- The Freshwater Habitats Trust has a list of organisations which may award grants for pond creation if it's related to a shoot or provides a community benefit.
- The new Countryside Stewardship scheme includes an option for pond creation or restoration (WN5/WN6).

Top tips to maximise wildlife

Create rockeries or log piles around the pond to act as refuge for amphibians, insects, small mammals and reptiles.

Install a platform with a floating ramp in the middle to attract wildfowl. Don't put in tonnes of grain or release birds, as this will spoil the habitat for other wildlife.

Plant a small shrub such as hawthorn on one margin (not south) to provide shade and leaf litter.

Limit livestock access – a little poaching is good, but too much will ruin marginal habitat and decrease water quality.

Avoid introducing fish – they will eat amphibian eggs and can make the water turbid.