Ponds & SUDS (Sustainable Drainage Systems)

Valuing, Enhancing and Protecting Existing Ponds

Ponds are vital habitats for wildlife, providing water, food and places in which to shelter and breed. They are described by the Freshwater Habitats Trust as 'bodies of water (normally fresh water, but occasionally brackish), which can vary in size between 1 square metre and 2 hectares and hold water for four months of the year or more'.

Ponds can be found across the landscape; in gardens, parks, corners of agricultural fields, floodplains and woodlands. They are usually isolated bodies of water which rely on rainfall and groundwater to stop them drying out, but some ponds are seasonal, meaning they can fill up in the winter before drying out in the summer. Both types of pond have value for wildlife and can be favoured by different species.

Two thirds of freshwater species are associated with ponds, including Smooth Newts, Large Red Damselflies, mayflies and some hoverflies, as well as 'Priority Species' including:

- Common Toad
- Great Crested Newt
- Water Shrew
- Pipistrelle and Daubenton's Bats
- Tubular Water-dropwort
- Water Violet

A mosaic of ponds is also beneficial, as natural succession means old ponds will eventually become overgrown and cease to exist, but at the same time there will still be newer ponds within the landscape. Such a 'pondscape' provides habitats for a number of priority species, including the Great Crested Newt, which has UK and European protection.

The Duty of Parish Councils

As a Public Authority, Parish Councils have a number of legal commitments including meeting their 'Biodiversity Duty'. This Duty is a responsibility to conserve and enhance species and habitats (including ponds), in order to enhance and protect the natural environment, this providing a net gain for biodiversity. See ***Parish Councils and the Duty to Conserve Biodiversity*** in this series.

Ponds are priority habitats listed under section 41 of the Natural Environment and Rural Communities Act 2006 (NERC Act). Parish Councils must ensure that any work with which they are involved complies with the NPPF (National Planning Policy Framework) 2019. This responsibility extends to work carried out directly by the Parish Council, plus their involvement with any policies, planning applications and plans, including Local and Neighbourhood Plans.

The NPFF states that "planning policies and decisions should…enhance the natural environment by 'protecting and enhancing valued landscapes and sites of biodiversity' and plans should promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity". See ***Commenting on Planning Applications*** in this series.

Pond Quality

Ponds vary in quality and in the UK lowlands, high-quality ponds are extremely localised. There are several systems in place that help to determine the quality of a pond, and ponds that are high quality (for example, ponds that contain protected or priority species), may warrant extra protection or additional mitigation measures. See the guidance in this series on ***Protected Species***.

The Freshwater Habitats Trust has 'Priority Pond Criteria', and also, in Leicestershire and Rutland, a pond can be designated as a Local Wildlife Site (LWS). The local LWS primary criteria for standing waterbodies (which includes ponds), list a number of features and species that a pond may contain, and if a pond has one of these features it automatically meets the criteria. One such feature is 'Stands of emergent vegetation, with a size threshold of 1,000m^{2}'.

In addition, a pond will meet the LWS criteria if it contains certain species or groups of species such as amphibians (Common Frog, Common Toad, Smooth Newt) or dragonflies and damselflies (breeding populations of certain species), or if it hosts a plant that is listed as scarce or rare in the 'Flora of Leicestershire and Rutland: Checklist and Rare Plant Register' (Jeeves 2010).

For the full list of LWS pond criteria see.
www.leicestershire.gov.uk/sites/default/files/field/pdf/2016/8/22/Guidelines_LWS.pdf

The Leicestershire and Rutland Environment Records Centre (LRERC) has a list of Local Wildlife Sites. Note that some types of search may be chargeable.

https://www.leicestershire.gov.uk/environment-and-planning/planning/leicestershire-and-rutland-environment-records-centre-lrerc

New Ponds and SUDs (Sustainable Drainage Systems)

Although essential for biodiversity, many ponds have either completely disappeared from our landscape or been significantly affected by urban expansion, pollution and agricultural intensification. Creating new ponds can replicate natural pond formation and has been described as the 'most natural and ecologically valid method to maintain pond communities' (Williams *et al.* 1997). Restoration, enhancement and creation of new ponds and SUDS is therefore not only paramount for wildlife but can help the Parish Council to comply with its responsibilities under the NPPF as well as the Biodiversity Duty with regard to direct operations, planning policies and decisions.

SUDS are designed, created and managed to benefit wildlife, reduce flood risk and are a way of incorporating ponds and other features into new developments and help Parish Councils comply with their obligations.

SUDS could, for instance, incorporate vegetation such as trees to absorb water and slow the rate at which it enters rivers or other waterbodies; filter the water of pollutants and sediments; reduce erosion and increase evapotranspiration (the process by which water is transferred from the land to the atmosphere). In addition to being habitats in their own right, SUDS form connections between features including existing ponds and ditches, thus increasing overall wildlife habitat area and enabling species to move between different waterbodies.

SUDS can also be features such as green roofs, rain gardens, grassy filter strips (where vegetation can grow undisturbed), sloping land to redirect water flow, detention basins to temporarily hold water, and living walls that encourage the growth of climbing plants such as Ivy, which provides food, shelter and nesting places for a range of species.

Local Examples of SUDS

There are several SUDS in Leicestershire and Rutland, and one example is Birkett House School in Wigston, for children with special educational needs. This project incorporated a sustainable drainage system alongside a valuable learning resource where students learn about the importance of nature and water in a safe and engaging way.

Features include a system whereby run-off was directed to a wetland area, and shallow, vegetated channels in the car park and playground for storing or conveying run-off (called 'swales'). Biodiversity was also enhanced by creating a small pond and planting wildflowers, and rain gardens provide additional interest stimulation for the children. The project was a great success and reached the finals of the Infrastructure Project of the Year Award in 2018

https://www.procon-leicestershire.co.uk/procon-awards/2018-awards/project/suds-at-birkett-house-school-wigston

Other examples include Glenfield Laundry site on Groby Road in Leicester, where storage tanks collect storm water, water retention basins in Hamilton, wetland creation at Abbey Meadows in Leicester and at Enderby Park and Ride, and the establishment of swales into the design of new housing developments.

https://www.leicester.gov.uk/media/179759/suds-guidance-april-2015.pdf

The creation and maintenance of SUDs can also bring communities together and help people feel more connected to the natural environment and each other. Outdoor activities such as creating and managing a rain garden or planting trees can also bring significant health benefits.

Further Information

Designing New Ponds for Wildlife

https://freshwaterhabitats.org.uk/wp-content/uploads/2013/09/Williams-et-al-1997-Design-new-ponds.pdf

A SUDS guide for local authorities and developers

https://www.rspb.org.uk/globalassets/downloads/documents/positions/planning/sustainable-drainage-systems.pdf https://freshwaterhabitats.org.uk/habitats/pond/