

Restoration of Wetland Landscape

BACKGROUND

Britain's wetlands range from ponds to rivers, reedbeds to bogs, and are home to a huge diversity of plants and animals. Wetlands play a major role in storing flood water and can reduce flooding in built-up areas, vital given the changing weather patterns associated with climate change – the risk of rising sea levels, warmer, drier summers and increasingly wet winters. As such, they protect areas where people live.

Wetlands play two key roles here.

- They act as 'sponges', soaking up water and slowing it down in times of flood, allowing it to drain down to groundwater below the soil surface. This reduces the amount that reaches our towns and cities, where it has potentially devastating effects.
- They provide a barrier between the sea and inland development, with saltmarshes absorbing the energy of storms and providing a storage area for high tides.

PROBLEMS

Potteric Carr is one of 81 nature reserves owned or leased by Yorkshire Wildlife Trust. It is one of England's best inland nature reserves – a mixture of woodlands, open water, reedbed and scrub – and has a corresponding interesting diversity of wildlife.

The Potteric Carr basin is an area of low lying land to the southeast of Doncaster. It was formerly largely bog and fen until it was drained in the mid-18th century to turn it to agriculture. During the 19th century, the coal and railway industries developed on parts of the Carr. The numerous railway lines fragmented the land and made farming difficult and uneconomic. In the mid-20th century, subsidence occurred under a part of the Carr due to mining and within 20 years this area had returned to its former fen and bog conditions.



SOLUTIONS

The Potteric Carr Wetlands remediation project has been funded mainly by HSBC through WWF, the EU LIFE-Nature Programme through RSPB, and the Aggregate Levy Sustainability Fund through English Nature and the Countryside Agency.

- The project has permitted the creation of the largest new wetland in the North of England to date.
- Former farmland has been transformed into a series of lagoons that will hold reed beds and pools.



BENEFITS

- New meadows will provide breeding sites for fast declining bird species such as the Lapwing and Skylark.
- The new wetland will increase the size of the Reserve to over 200 hectares, helping to attract back breeding populations of wetland birds, such as the Marsh Harrier, Bearded Tit and Bittern.
- The enhanced wetland will help to naturally purify the waste water from 10,000 homes and industrial sectors in the area.
- The extension will facilitate education and training facilities on the reserve and attract more visitors, which will in turn contribute to creating jobs and support local businesses.
- The reserve already stores floodwater to protect the town. The new wetland will provide another 200 Olympic swimming pools' worth of water storage in the event of a major flood, which is becoming more likely with climate change.

All these benefits are among the aims of new European Union legislation, the Water Framework Directive, which requires governments to improve water management for people and wildlife by 2015.

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