

# Water and Wetlands Habitat Statement

Doncaster Local Biodiversity Action Plan  
January 2007





# Water and Wetlands Habitat Statement

- 1.1 The Doncaster Borough straddles the watershed between the Lower Don and Lower Trent river catchments. The low-lying River Don and its floodplain meanders through the Coal Measures on our eastern boundary before cutting through the Magnesian Limestone in a deep Gorge at Sprotbrough and then flowing through the flatlands of the Humberhead Levels towards the Ouse. Numerous small streams flow off the Magnesian Limestone and across the Levels to join either the Trent (in the southern areas of the Borough) or the Don, in the north. Historically, the floodplains were associated with numerous smaller wetlands and marshes, boggy pools and fens. The Humberhead Levels itself was once an extensive area of deep lake sediments covered by wildwood. Clearance of the woodland and an increase in waterlogging about 4000 years ago resulted in a huge boggy marshland of swamp, raised mire, marsh and open water, only inhabited on the drier 'islands' of land such as Hatfield, and at Axholme, Crowle and Snaith in neighbouring districts.
- 1.2 To understand the biodiversity importance of Doncaster's present day wetlands and watercourses it is necessary to describe the changes that have taken place over time. A series of human interventions dating back at least to Roman times has not only seen the draining of many of our natural wetlands and canalisation of most of our watercourses, but has also resulted in the complete re-routing of the Don northwards, severing its original route to the Trent, south of Thorne. The Idle, once a tributary of the Don, has also been re-directed eastwards and it too now discharges to the Trent. Serious attempts to drain the lowlands began in the 17th Century with Cornelius Vermuyden, a Dutch drainage engineer employed by Charles I, but drainage of the area was not successfully achieved until the coming of steam and electric pumping stations in the 19th and 20th Centuries. Much of the low-lying productive farmland of the Humberhead Levels is now only maintained by pumped drainage schemes and the only remains of wetland habitats now survive in the miles of drainage ditches.
- 1.3 Navigational improvements such as weir creation, channel widening, and straightening bends (creating oxbow lakes) have had a major effect on the course of the Lower Don. The construction of the Dun Navigation severed many sections of the natural river channel from the floodplain, and re-directed the overflow, not needed to maintain canal levels, into the Flood Channel – what most people now think of as the River Don. In more recent times, the construction of flood defence embankments on many of our rivers and larger streams have further severed any remaining natural floodplain wetlands from natural flood cycles.

1.4 Human activities have also created new watercourses and wetland habitats. The canals themselves provide a slow-flowing aquatic habitat. The construction of canal road and railway embankments requires large volumes of earth or clay, and often this was excavated locally to form water-filled 'borrow' pits. Mining subsidence also resulted in lowering of ground levels and where this occurred in the river valleys, as at Sprotbrough, it has created new lakes or 'flashes', wet woodlands, reedbeds and swamps. Clay and sand extraction has also created many new wetlands as has the landscaping of formal water gardens associated with large country houses, the creation of dams and mill ponds, and the defensive moats associated with historic manor houses and castles.

1.5 It is clear that truly 'natural' watercourses and wetlands are rare in the Doncaster Borough and therefore any fragments of natural river or floodplain wetlands which do survive are an important reservoir of our once much more widespread wetland biodiversity. In many places, man-made wetlands now offer the only habitats in which aquatic species can survive.

1.6 Due the varying pressures and threats affecting the range of different types of aquatic habitats present in Doncaster, the following separate Habitat Action Plans have been prepared for the following habitat 'groups':

- Rivers, Canals, Oxbows, Major Streams and Subsidence wetlands
- Minor Streams, springs, fens, flushes, mires and 'fenny' fields
- Marshes and swamps, lakes and ponds, ditches and drains
- Reedbeds





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