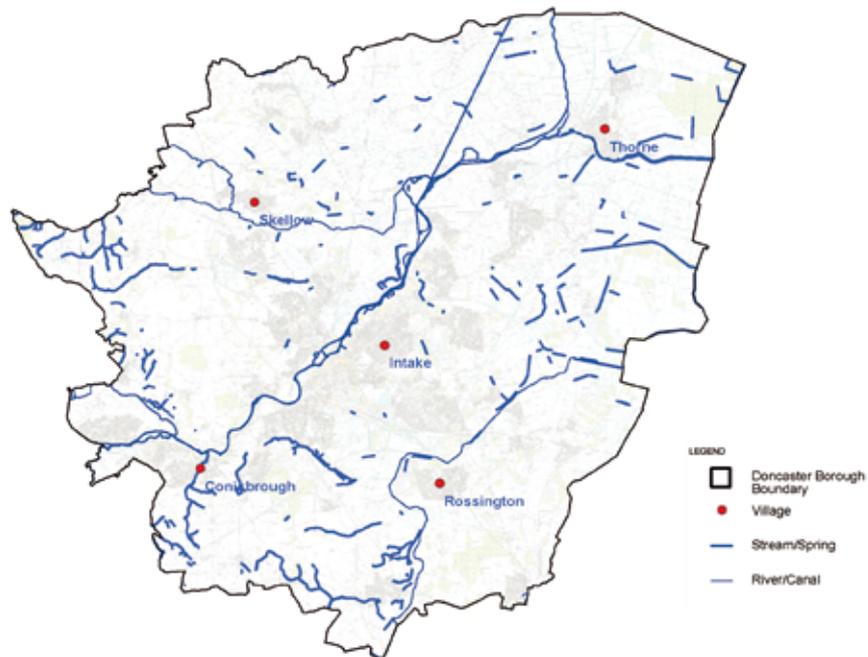


# Minor Streams, Springs, Fens, Flushes, Mires and Fenny Fields

## Summary Habitat Action Plan

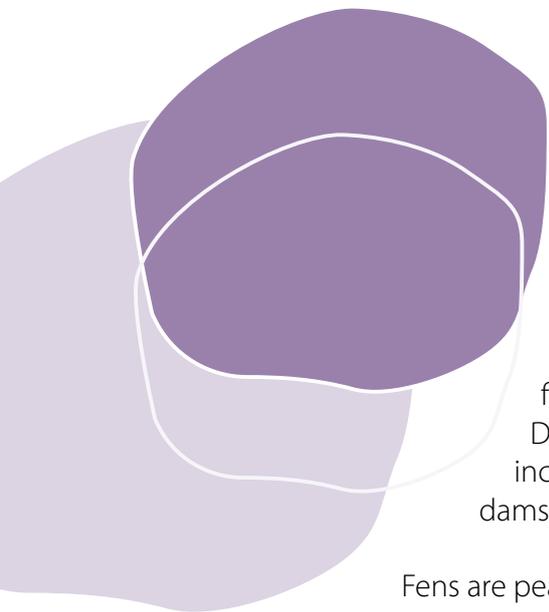
Doncaster Local Biodiversity Action Plan  
January 2007



This is one of two maps produced for this habitat – for the other map please refer to the Minor Streams, Springs, Fens, Flushes, Mires and 'Fenny' Fields Habitat Action Plan.

"© Crown copyright. All rights reserved (100019782) (2007)"





## 1 Habitat description

Many of the springs and stream headwaters in the Doncaster Borough emerge from the edge of the Magnesian Limestone where the porous limestone meets underlying impervious clays and silts. The upper sections of our limestone streams can be rocky or pebbly, although in lower reaches gentle slopes create shallow valleys where sediments gather to smother the underlying rocky substrate. Small stretches of relatively swift-flowing streams can also be found on the sandy areas in the east of Doncaster. Streams and flushes are important for a variety of wildlife including water vole, water shrew, yellow wagtails, dragonflies and damselflies, and a variety of mosses, rushes and sedges.

Fens are peatland habitats that receive water and nutrients from the soil, rock, groundwater and rainfall. Fens contain a rich diversity of plant species and accommodate more than half of the UK species of dragonfly, they are also important for several thousand other insect species. 'Fenny fields' are a peculiarity of the northern Doncaster, Went Valley floodplain, where the waterlogged soil conditions support marshy grasslands in which the proportion of broadleaved herbs, such as great burnet, meadow sweet, meadow rue and sneezewort, is greater than that of the grasses. Fenny fields are ideal for feeding waders such as snipe, redshank, curlew, corncrake and black-tailed godwit.

Valley mire develops along the lower slopes and floor of a small valley and receives its water from springs and seepages on the valley sides. They are often dominated by sedges and sphagnum mosses.

## 2 Characteristic species

Duckweed	Starworts	Greater pond sedge
Broadleaved pondweed	Common reed	Branched bur-reed
Fennel-leaved pondweed	Reed sweet-grass	Great fen sedge

## 3 Current factors causing loss or decline

- Land drainage associated with mining subsidence remediation can result in the drying out of fen areas on agricultural land.
- A lack of stream or ditch management can also lead to blockages and localised raising of fen water levels leading to conversion to swamp or marsh.
- Urban development around fen and mire sites can lead to coverage of large areas of the local catchment with impermeable surfacing and diversion of rainwater into watercourses. This leads to reduced rainwater percolation and groundwater flows into fen or mire habitats. Use of rock salt to grit these areas could lead to saline contamination of freshwater systems.
- The installation of land drainage pipes in place of more open channels, and the lack of management of field ponds and wet flushes have largely removed such habitats from agricultural land.

- Pollution, both point source and diffuse, has a significant effect on water quality. Fertiliser application and excessive manuring of fields around basin mires and other fen habitats can also cause nutrient enrichment.
- Release of non-native fish species and invasive plants into small fishing ponds and impounded streams can result in their escape into the wider catchment, threatening native biodiversity.
- Lack of management and, particularly, a lack of scrub control can result in reversion of fens to scrub and carr. Traditional low intensity mowing or grazing management in some fenny fields can prove difficult to sustain.

## 4 Objectives, targets & proposed actions

Objective	Target	Ref	Action	Lead & Partners
1) To ensure the protection and maintenance of streams, fens and fenny field habitats.	All new road schemes to include SUDS.	1.6	Ensure better regulation and pollution control of highway discharges into open watercourses and wetlands, to reduce contamination by road debris, oil, silt and saline run-off.	DMBC
2) To restore degraded sites and ensure appropriate management of streams, fens and fenny field habitats.	By 2009.	2.2	Research historic locations of fen in the areas surrounding Thorne and Hatfield Moors, with a view to identifying potential locations for habitat restoration projects.	DMBC, Yorkshire Wildlife Trust (YWT), Doncaster Naturalists' Society (DNS), Thorne & Hatfield Moors Conservation Forum (THMCF)
	Develop plans for key sites by 2009.	2.4	Develop and implement management plans for protecting and enhancing important fish spawning areas.	DMBC, Environment Agency (EA), Internal Drainage Boards (IDBs), British Waterways (BW)
3) To create 1 ha of fen and fenny field habitats linked to existing river and stream systems.	1 ha of fenny field habitat creation by 2009.	3.1	Create fen and 'fenny field' habitats in close proximity to existing sites, to safeguard and enhance the populations of associated key species.	DMBC, Private Landowners/ developers, EA, British Waterways, IDB, Coal Authority, YWT, DNS
4) Raise public awareness of the importance and special characteristics of streams, fens and fenny field habitats.	1 Green Flag site by 2010.	4.3	Pursue Green Flag status for one wetland nature conservation site e.g. Hanging Wood and Highfields Lake, or Holmes Carr Great Wood.	DMBC

## 5 This habitat in Doncaster

The following describes where in the Doncaster Borough good examples of this habitat can be found, however, named sites may be privately owned and therefore are not publicly accessible. For further information about this habitat and where it can be found in Doncaster see the 'Minor Streams, Springs, Fens, Flushes, Mires and 'Fenny' Fields Habitat Action Plan'.

Streams and fens are found throughout the Borough, and some of the most biodiverse examples are Sites of Scientific Interest. Numerous small streams flow off the Magnesian Limestone to join either the Trent, in the south of the Borough, or the Don in the north.

Smaller streams that feed into the Don include those arising near Cusworth Hall, and Lanthwaite Dike, which arises near Brodsworth. The dike re-emerges at Hanging Wood and Highfields Lake, within the Country Park, flowing through an area of fen and wet woodland into the lake before passing under the Old North Road.

An area of mire habitat can be found on the West Moor Dike (a stream which arises in Bella Wood near Hickleton), where a long-abandoned old mill dam has impounded the streams natural flow. The woodland rides in the surrounding woodland also support pockets of tall fen vegetation.

## 6 How to take part

### 'Backyard Biodiversity – Nature in your Neighbourhood'

This is a new initiative launched by Doncaster Council to enable local people to learn about, protect and enjoy nature where they live. Community Groups and Organisations can loan activity packs and equipment to enable them to take part in activities such as bird watching, pond-dipping, building bird and bat boxes and bug hunting. The service is available FREE of charge from selected Customer Service Centres in Doncaster. A pack of Wildlife Gardening fact sheets has also been produced, which provides advice and information on how you can help the wildlife in your own garden.



Doncaster Biodiversity Action Partnership  
Doncaster Council, Environmental Planning, 2nd Floor, Danum House,  
St Sepulchre Gate, Doncaster, DN1 1UB.

Telephone: 01302 862896  
Email: [bio.diversity@doncaster.gov.uk](mailto:bio.diversity@doncaster.gov.uk)

[www.doncaster.gov.uk/biodiversity](http://www.doncaster.gov.uk/biodiversity)