



Common Snipe

later superseded by

owned by one company (Hepworths the land on the north of the Redhill Brook Part of the problem was that ownership of the Moors was split, mown grass, but none of them ever materialised. including the creation of a linear park with ornamental trees and Brook - the Moors. There had been proposals for the Moors, and fullers earth, left a finger of green running along the Redhill By the mid 1990's, what hadn't been built on or dug up for sand wetland had existed here for over a thousand years. hydrological, archaeological, etc. Historical records indicated a This means undertaking all kinds of surveys - ecological, Key to undertaking any scheme like this is the initial research.

## SURVEYS & RESEARCH

The wider area surrounding the Moors, was extensively worked for minerals for many years before Surrey County Council promoted an environmental enhancement initiative, in association with the four companies operating in the area. This partnership became known as the *Nutfield Ridge & Marsh Project*. It created a shared vision for the area, and implemented a series of restoration and enhancement schemes including the Moors project – the creation of a new wetland nature reserve.

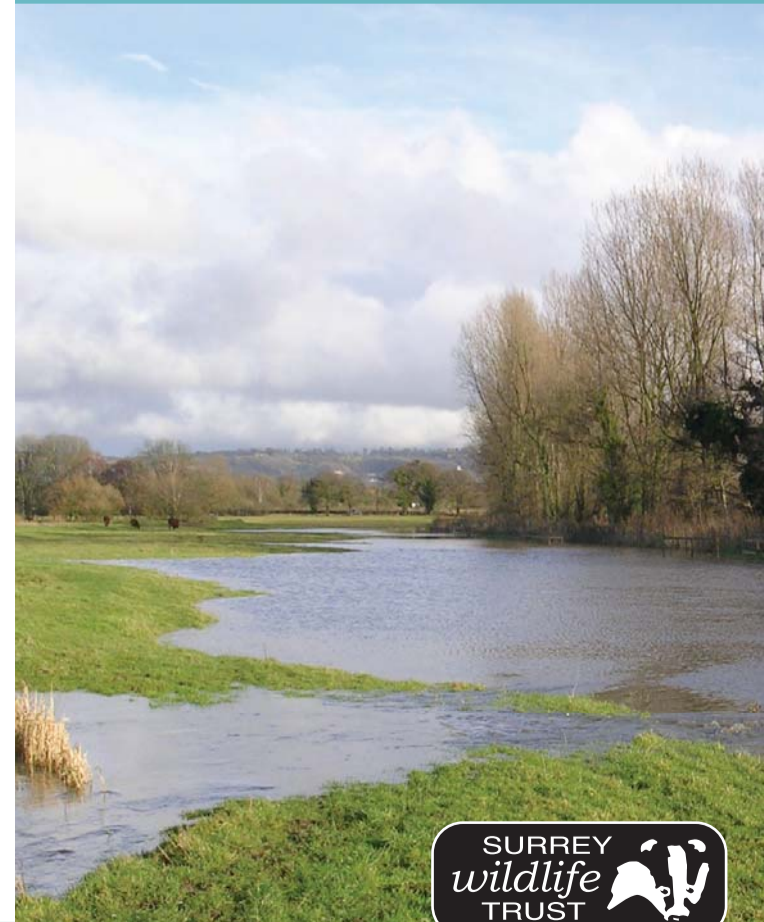
## HABITAT RESTORATION

The Moors lies to the East of Redhill, along the Redhill Brook, sandwiched between the Holmethorpe Lagoons to the North and Surrey's largest landfill site to the South. It forms part of the Nutfield Marsh Nature Reserve.

# Nutfield Marsh Nature Reserve

## The Moors Story

Restoration of a major wetland habitat



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The second challenge was that of hydrology. The Moors seasonally floods from the Redhill Brook, but the floodwaters can disappear very quickly and the site can become quite dry in the summer. Research established that the site used to be much wetter, but there was a need to understand how water levels behave now and what they are likely to do in the future. After further research it was decided to artificially line the new shallow wader pools and ponds to prevent them from drying out in the summer.

The first was that the Moors is a long thin corridor, with public footpaths on both flanks. Great for public enjoyment, but a challenge in terms of creating a safe sanctuary area, particularly for ground nesting birds. This was overcome in the design by careful location of the various features and building in screen bunding and planting.

Designing wetlands is never easy, and the Moors presented two key design issues.

## DESIGNING A WETLAND

Linden Homes) and land to the south by another (Biffa Waste Services). The landowners were keen to do something with their respective parts of the Moors and, through the Nutfield Ridge & Marsh Project, both parts of the site were brought together to create a single river corridor.



Natural colonisation in the feeder channel



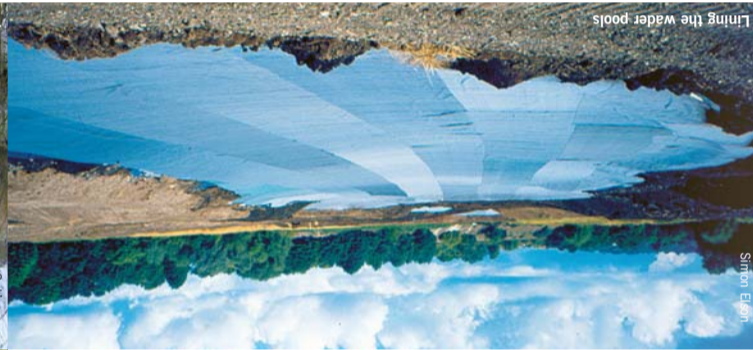
The dug out feeder channel



Azure Damselfly



Teal



Lining the wader pools



The wader pools now

## SEE HOW IT WORKS

You can walk around the edges of the Moors, following the footpaths, but don't be disappointed if you can't find many of the features that are described above.

They are hidden away in sanctuary areas of the site. Guided walks and other events are held which provide a chance to see how it all works. Alternatively why not join one of our regular work parties we're holding on the Moors!

## THE BIG PICTURE

The Moors is special for one further and very exciting reason. It is the western end of Nutfield Marsh Nature Reserve, (see map overleaf) stretching along the Redhill Brook some 2.5km to join up with Spynes Mere reserve to the West. This extended reserve will also incorporate Holmethorpe Lagoons and potentially Mercers West.

The Moors you see today is thanks to the restoration of the site, through a partnership between Surrey Wildlife Trust, Biffa Waste Services, The Environment Agency, Linden Homes, Sibelco UK and Surrey County Council. The scheme was funded through the generosity of the Biffaward landfill tax scheme.



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We restored some 20 acres of wetland habitat making a significant contribution to Surrey's Habitat Action Plan for Flood Plain Grassland. Another benefit of the scheme is that it helped with localised flooding by holding the floodwater back for longer in a river catchment where the water flashes through. The project also improved public access and visually enhanced the area.

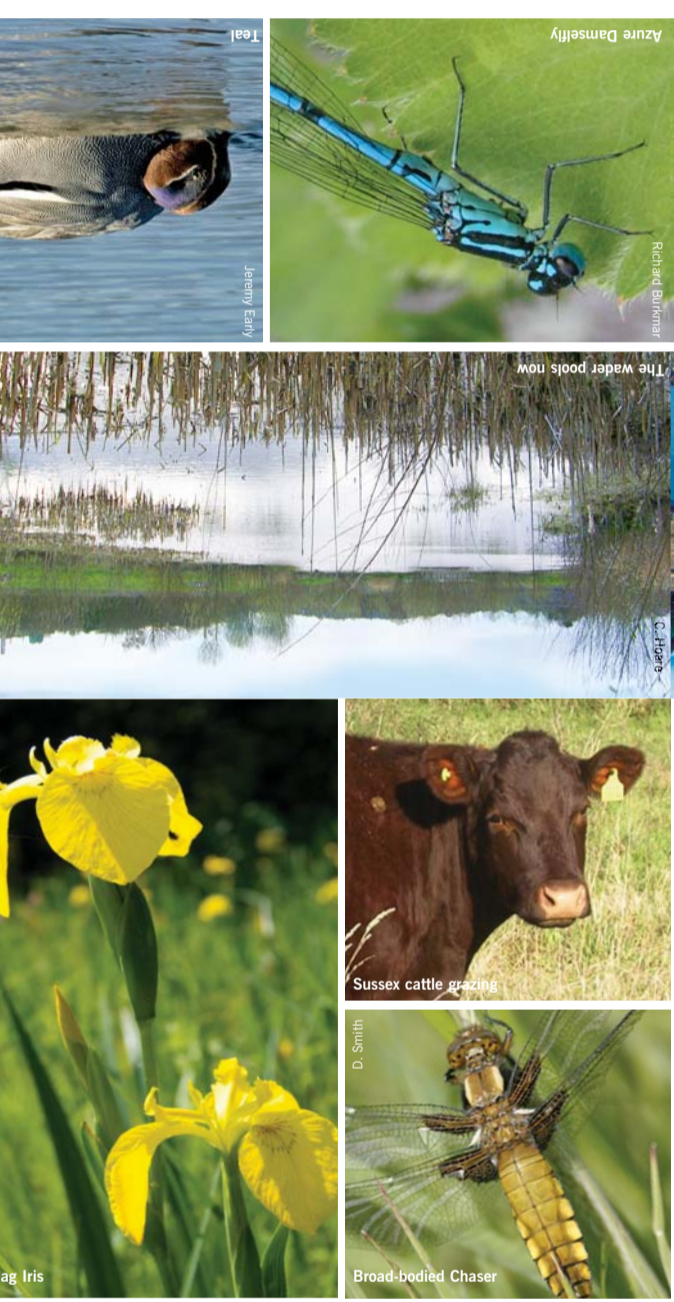
## So what has been created?

## THE END RESULT

The Environment Agency carried out advanced works to create the structures to feed water from the Redhill Brook to the scheme, and enhanced the line of the watercourse itself. With planning permission, draft management plans and detailed costings in place, funding for the scheme was obtained from Biffaward with a grant of £300,000.

Implementation of the scheme on the ground was undertaken by Oxfordshire based firm White Horse Contractors and Surrey Wildlife Trust joined the partnership, making a commitment to take on long-term management of the site.

## FUNDING & IMPLEMENTATION



Sussex cattle grazing



Broad-bodied Chaser



Yellow Flag Iris

## The new features of the site fall into three main areas.

The first is a pair of shallow pools designed as wader pools for bird species such as lapwing, snipe and redshank, which also attract green sandpiper. These pools are designed to progressively dry out as the Spring and Summer passes, exposing fresh muddy margins. They are fed by a water supply, in the event of drying out too fast, and can be topped up from a reservoir designed to look like a branch channel of the Redhill Brook. Floodwater can only be taken from the Brook in winter, so the channel floods and water is then held there.

The middle section comprises two deep ponds, which hold water all year round and are straddled by a new public access route. Hopefully these will attract great crested newt, which are found nearby, but not on the Moors itself. These ponds, like the other waterbodies created have been attractively planted up with native wetland plants appropriate to the area.

## The final section is a pair of small pools which are ideal for dragonflies.

Whilst the scheme is still settling in all the signs are that it is working. It floods beautifully in winter (the new permissive path gives you the feeling of walking on water!) and all the pools do exactly what they should in summer. Numbers of Snipe have more than quadrupled and the damselflies and dragonflies have been fantastic. Grazing by traditional "Sussex" breed cattle has now been introduced to manage many of the grassland areas.

# Nutfield Marsh Nature Reserve



The Nutfield Marsh Project has created four wetland nature reserves, restored from sand workings, along the Redhill Brook. The sites are easily accessible via a network of paths shown on the map. You can walk from one end to the other without leaving the sanctuary of this extended nature reserve.

We hope you enjoy your visit!

**KEY**

- Footpath
- Permissive footpaths
- Bridleway
- National/Regional Cycle Network

**Guidelines**

- Bicycles and horses permitted on marked bridle routes only
- Please ensure that dogs are kept under close control and kept to footpaths to avoid disturbing the wildlife
- Please keep dogs out of ponds
- Please take your litter home with you and recycle what you can
- Please observe any additional notices posted by the site manager

## 1 The Moors

In autumn, snipe, and other waders, arrive for winter. Ducks such as mallard and teal flock to feed on the flood. In summer the pools are alive with small damselflies such as banded demoiselle, and bigger dragonflies like the southern hawker and emperor.

Moors is old Saxon for marsh, and surviving Saxon documents describe the area as 'marshy with black peaty pools'. Cattle graze the marsh and permanent pools ensure wetland habitat is available all year round.



Common snipe




Southern hawker dragonfly (male)


## 2 Mercers West

Mercers West has the potential to become a 20ha extension to the Trust's reserve, linking Spynes Mere to the Moors & Holmethorpe. The site is a former sand quarry, like Spynes Mere, and restoration is just being completed by Sibelco UK.

This site is already good for wintering waterfowl, and sand faces have successfully been left for breeding sand martin. Wading birds such as green sandpiper can be seen on the muddy banks. You can walk around and view the reserve from the eastern end.



Sand martin



Green sand piper



## 3 Holmethorpe Lagoons

Occupying the site of the former sand processing works, this area is being restored as an integral part of the Water Colour housing development. On completion, apart from benefitting the full range of freshwater species, this part of the reserve will be particularly attractive to reedbed warblers, waterfowl and dragonflies. If we are really lucky, wintering bittern may put in an appearance!




Reed warbler




Bittern

## 4 Spynes Mere

The reserve is home to many waterbirds. They are at their greatest numbers in winter, when tufted duck, gadwall, and the occasional pochard ducks can be found, together with mute swans, little grebes and coots. The big south facing grassland slope is excellent for butterflies and grasshoppers, food of common lizard and slow worms, which, if you're quiet, you might see basking in sunny spots.



Gadwall



Common lizard