

Access to the area is by a public footpath to the Lye Brook on the east side from The Slade road and public footpath from Roosevelt Drive to the Boundary Brook. The path through the wettest peaty area along the side of the Lye Brook has been improved by the installation of a plastic boardwalk.

Further information on the Lye Valley is available on the website of the Friends of Lye Valley at <http://www.headington.org.uk/lyevalley/>



HISTORICAL DEVELOPMENT

Geology and history

High ground surrounding the valleys is partly limestone of the Jurassic age and partly the Beckley Sands. The spring line that feeds the wetlands arises where the porous higher rocks of limestone and the Beckley Sands meet the impervious Oxford clay below. The very high lime content of the spring water ensures the deposition of tufa (like limescale) on all wetland vegetation. **Such tufa-forming alkaline wetlands are a national rarity and also a priority natural habitat at a European level. Geology and pH are crucial to the formation and survival of the areas of rare alkaline fen wetlands in these valleys.**

Interglacial peat deposits visible in the eroded banks of the brooks must certainly be more than 100,000 years old. Evidence provided by a pollen and seed study of remains preserved in the peat of the SSSI fens indicates that there was first a post-glacial (after 10,000 BP) small shallow lake in the North Fen area. Over time this was gradually filled in by swamp vegetation and developed into the peat-forming alkaline calcareous fen found today.

Some of the first recorded written references to the area are for the Lye Brook wetland areas, referred to as 'Hockley' or 'Hockley in ye Hole' in the 1690s by botanist Bobart. The North Fen area is described as 'The Poor' in the 1804 Enclosure map for Headington. This is interpreted as meaning that the poor of the parish were allowed to remove peat (to be burnt as fuel) from the wetland areas. This use of the site is indicated in the 'Peat Moors' name of the adjacent road just outside this

plan area. The whole area was referred to as ‘The Moors’ by Henry Taunt, a photographer who operated locally in the early 1900s. At this time, all of it was common land that underwent light grazing – ideal management for high biodiversity in the wetlands. This grazing ceased after the early 1900s.

The housing estates that now surround the area at the head of the Lye Brook were built between the 1920s and 1940s.

KEY POSITIVE CHARACTER FEATURES

The Heritage of this area is the ancient natural environment preserved here. It has a very large and valuable natural biodiversity which is the product of ancient ecosystems in the wetlands that have been functioning since the end of the last ice age. A number of the rare plant species are arctic-alpines and thus late glacial relicts. **Over 20 species of plants found here in the SSSI area have already declined nationally to the extent that they are on the Rare Plants Register for the county.**



Bog Pimpernel



Marsh Lousewort

*Photos courtesy
Judy Webb*

A wealth of other important wildlife is present as well – Brown Hairstreak butterflies, glow worms, lizards, slow worms, grass snakes, frogs, toads, foxes and deer.

This area of ‘wild’ land is a haven within the busy urban area of The Slade and Old Road. It provides an opportunity to enjoy the peace and quiet necessary for relaxation and de-stressing, and to appreciate nature.

ISSUES

Detrimental effect of development

- Any new development within the catchment of springs – i.e. within plan areas Warneford, Churchill Hospital, Girdlestone and areas of adjacent Wood Farm – may be detrimental to the Lye Valley fen via reduction in spring water. SUDs are only short term solutions.

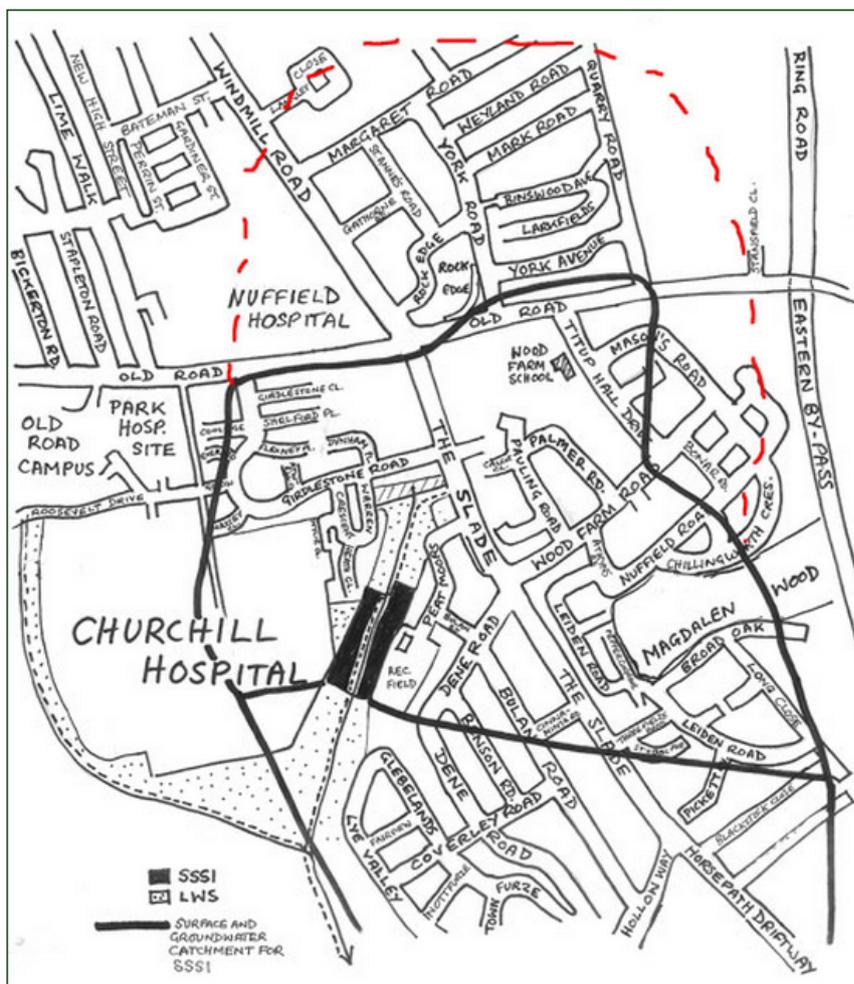


- Infill development and paving over of front gardens because of lack of parking would reduce vital water infiltration and also increase run-off, exacerbating the erosion of the wetlands.
- Already there is erosion of the wetlands caused by road run-off to the large Thames Water surface drain that enters the Lye Brook at the top of the valley and from several surface water drains that enter the Boundary Brook from developments, principally the Churchill Hospital.

GUIDANCE FOR DESIGN OF NEW DEVELOPMENT

The whole area should be protected from new development within the rainwater catchment. New development would further restrict rainwater infiltration to the soil and shed rainwater that would contribute to the damaging erosion in the valley.

The Catchment of the Lye Valley North Fen



The rainwater catchment areas in Headington for the Lye Valley are up on the website of Friends of Lye Valley and there is a full explanation of these issues. See http://www.headington.org.uk/lye_valley/about/index.html.

The eastern part of the head of the Lye Brook valley is very important for rare wetland wildlife and habitats on peat. (There is approximately 1 metre of waterlogged peat remaining - an important carbon store.) The area includes, within the central section of the Lye Brook, the 'North Fen' section of the Lye Valley SSSI calcareous (lime-rich) fen, which is of national importance for its biodiversity and rare habitat type.

Churchill Hospital and Old Road Campus/Park Hospital, which lies on higher ground between the 'arms' of the 'Y', influences this area by being the rainwater catchment zone for the springs, peaty wetlands and wet woodlands of alder and willow that occur all along the margins of both the Lye Brook and Boundary Brook. Plan areas Girdlestone and Churchill are also wholly or partly within the rainwater catchment zone of the springs and peaty wetlands in the Lye Valley.

This area also includes the drier rough grassland on sloping land south of the Churchill Hospital, known as the Churchill Hospital Field, which is on the sandy soil of the Beckley sands, as well as the level, green, grassy area adjacent to Warren Crescent, which is mostly made-ground and currently under threat of a housing development.

PROPOSED ASSETS

Ecological Assets

A large part of this area, owned by Oxford City Council, is a Local Nature Reserve (LNR). The rest of the land around the Lye Brook and all the land in the corridor of the Boundary Brook is owned by the Oxford University Hospitals NHS Trust; part of this area has been designated a Site of Special Scientific Importance (SSSI) as regards wildlife. The whole of the area outside the SSSI has been designated a Local Wildlife Site (LWS) indicating that it is of county importance for its wildlife.