

6. Environmental Information

6.1 Topography

Merecroft Pool is situated within a south-north trending valley draining into the River Rea. The site slopes from an altitude of 150m at Beaks Hill Road to 139m along Wychall Lane. Much of the site is flat although the meadows along the eastern boundary of the site have medium gradient west facing slopes.

The Recreation Ground along with Wychall Reservoir and the Peafield site are situated within a west-east trending valley through which the River Rea passes. All three sites sit within the floodplain of the river and as a consequence the natural topography of these sites is relatively flat. A west facing slope exists along the eastern edge of the Reservoir site due to the presence of the dam structure.

6.2 Hydrology

The stream which passes through Merecroft Pool was originally dammed between 1844 and 1890. Today this stream enters the site through a culvert under Meadow Hill Road before passing through the southern meadow. Prior to the stream flowing into the pool it passes through the rear gardens of N^o 47 and N^o 49 Meadow Hill Road. As a result of the urban development which has taken place over the last 60 years the drainage patterns within the stream's catchment area have been altered and today the flow within the channel is greatly reduced.

Engineering work to reinstate the dam and outflow included the construction of a new weir which today maintains the water some 8cm below its previous level. Below the weir the stream passes through the land owned by Canal and River Trust before flowing under Wychall Lane and into the River Rea.

The Recreation Ground along with Wychall Reservoir and the Peafield site contain stretches of the River Rea. These three low lying sites are contained within the flood plain of the river and as a consequence are wet throughout the year. The high water table along with the influx of water during flood events allow several natural and man-made pools and many ephemeral ditches to exist.

During flood events water from the River Rea passes out over a weir at Popes Lane, onto the floodplain and into the reservoir. During such flood events the reservoir is able to empty via a large concrete overflow which takes floodwater directly into the river in order to prevent any further and more serious flooding.

The remains of a much altered mill race pass along the northern edge of the reservoir site and converge with the river as it enters the Recreation Ground.

6.3 Geology

The underlying geology of the entire LNR comprises Triassic deposits of Keuper Marl and, given its valley position, alluvial deposits should be present.

6.4 Pedology

There have been no surveys to determine specific pedological units.

6.5 Meteorology

The nearest weather stations are located at the University of Birmingham and Birmingham International Airport.

Specific information regarding the microclimate of KNLNR and the proposed extension site is not available and as such the climate can only be related to local records.

The mean monthly temperature for the West Midlands is 13°C with summer averages of 16°C (July and August) and winter averages of 3°C (January).

The average frost-free period for the region is 140 days and the growing season stretches from the middle of March to late November. The rainfall for the area is moderate with a range of 550-875mm with the prevailing winds coming from the west and southwest. Air pollution may have an influence on the local climate but detailed information is unavailable.