6.0 Groundwater

- The London basin contains an aquifer which lies deep below ground within the Thanet Sands and Chalk. It is fed from the chalk outcrops to the north and south of the Thames Valley. However, because of the impermeable London Clay which lies beneath the gravel terraces there is a local perched water table which is fed by precipitation within the Thames Valley. This is known as London's Upper Aquifer. A significant contributor to the water in the upper aquifer is burst or leaking water mains. The water on this upper aquifer tends to flow slowly across the surface of the London Clay depending on the permeability of the overlying sands and gravels. London's development has altered what were natural open ditches which flowed into tributaries of the River Thames; Counters Creek and the River Westbourne. However the upper aquifer water levels do not vary significantly as water drains away into the Thames basin.
- The flows across the surface of the London Clay have historically eroded shallow channels in the surface of the clay which tend to be filled with sand and gravel. These can have an influence on local ground water levels and ground water flows.
- The combination of the topography and geology around Notting Hill is particularly unusual and in places causes unusually high ground water flows which can be problematic for subterranean construction, unless this is recognised and clearly understood by those designing and constructing basements.

