

C.1 CAMDEN AQUIFER DESIGNATION MAP

Groundwater – Source Protection Zones

KEYPLAN

Inner zone (Zone 1)

SPZ1 – Inner protection zone

Defined as the 50 day travel time from any point below the water table to the source. This zone has a minimum radius of 50 metres.

Outer zone (Zone 2)

SPZ2 – Outer protection zone

Defined by a 400 day travel time from a point below the water table. The previous methodology gave an option to define SPZ2 as the minimum recharge area required to support 25 per cent of the protected yield. This option is no longer available in defining new SPZs and instead this zone has a minimum radius of 250 or 500 metres around the source, depending on the size of the abstraction.

Total catchment (Zone 3)

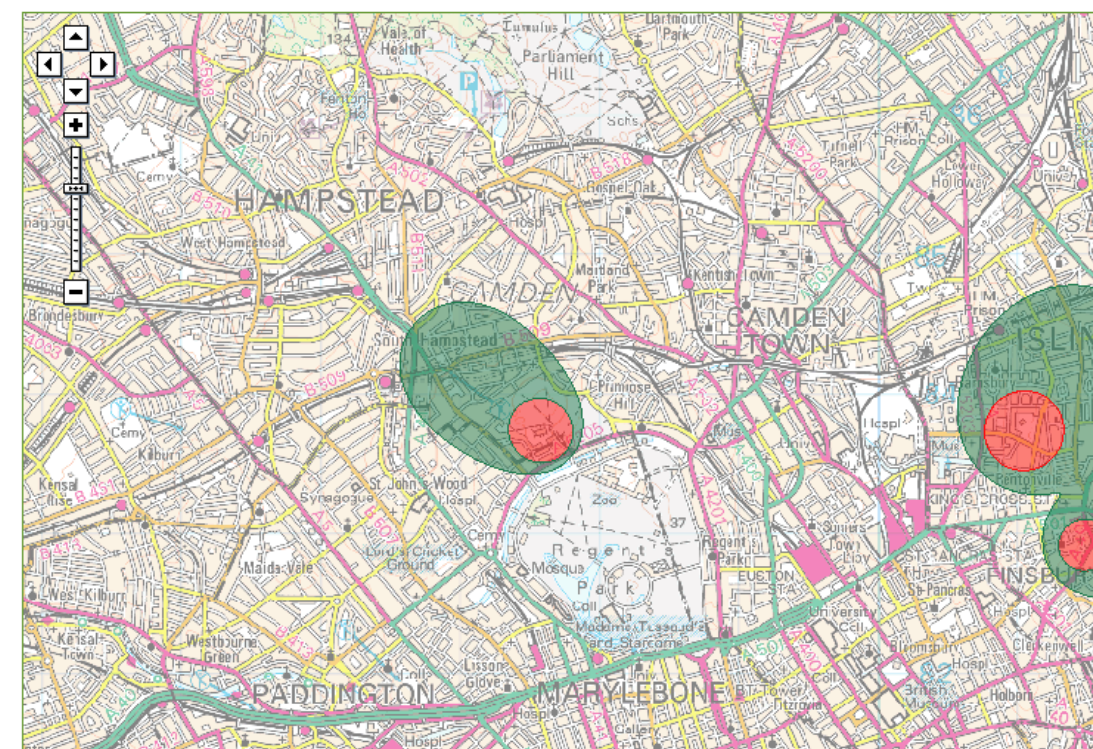
SPZ3 – Source catchment protection zone

Defined as the area around a source within which all groundwater recharge is presumed to be discharged at the source. In confined aquifers, the source catchment may be displaced some distance from the source. For heavily exploited aquifers, the final Source Catchment Protection Zone can be defined as the whole aquifer recharge area where the ratio of groundwater abstraction to aquifer recharge (average recharge multiplied by outcrop area) is >0.75 . There is still the need to define individual source protection areas to assist operators in catchment management.

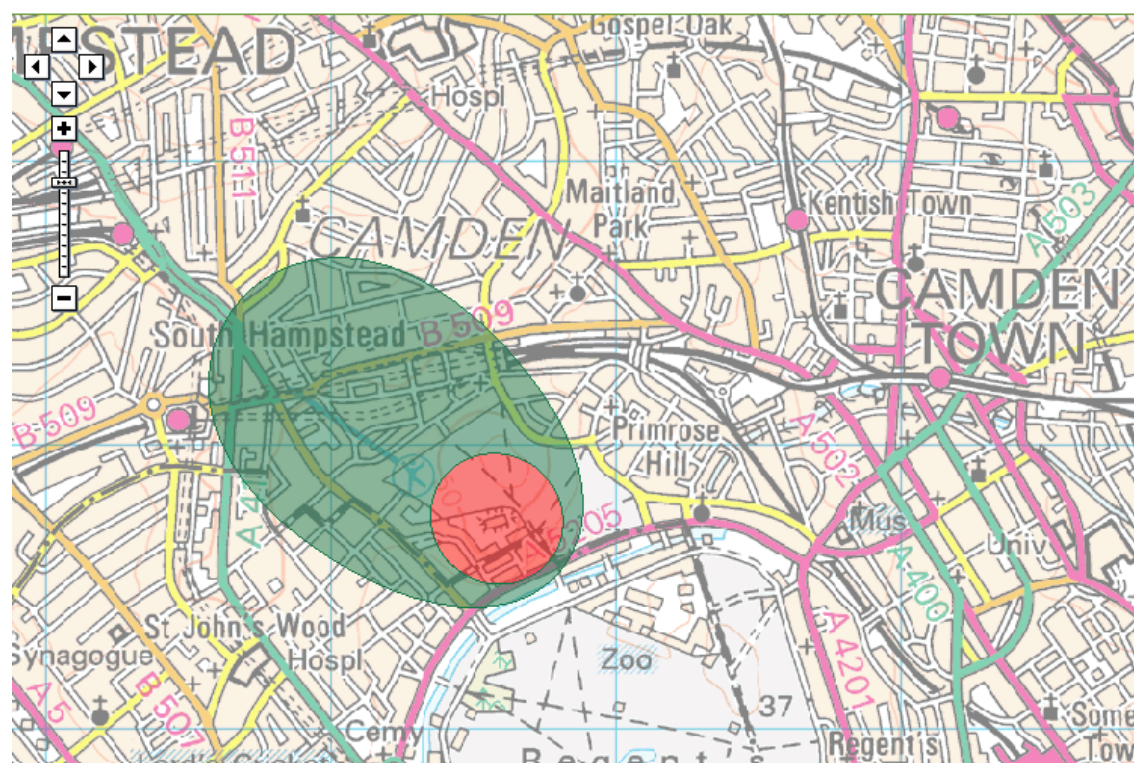
Special interest (Zone 4)

Former zone of special interest

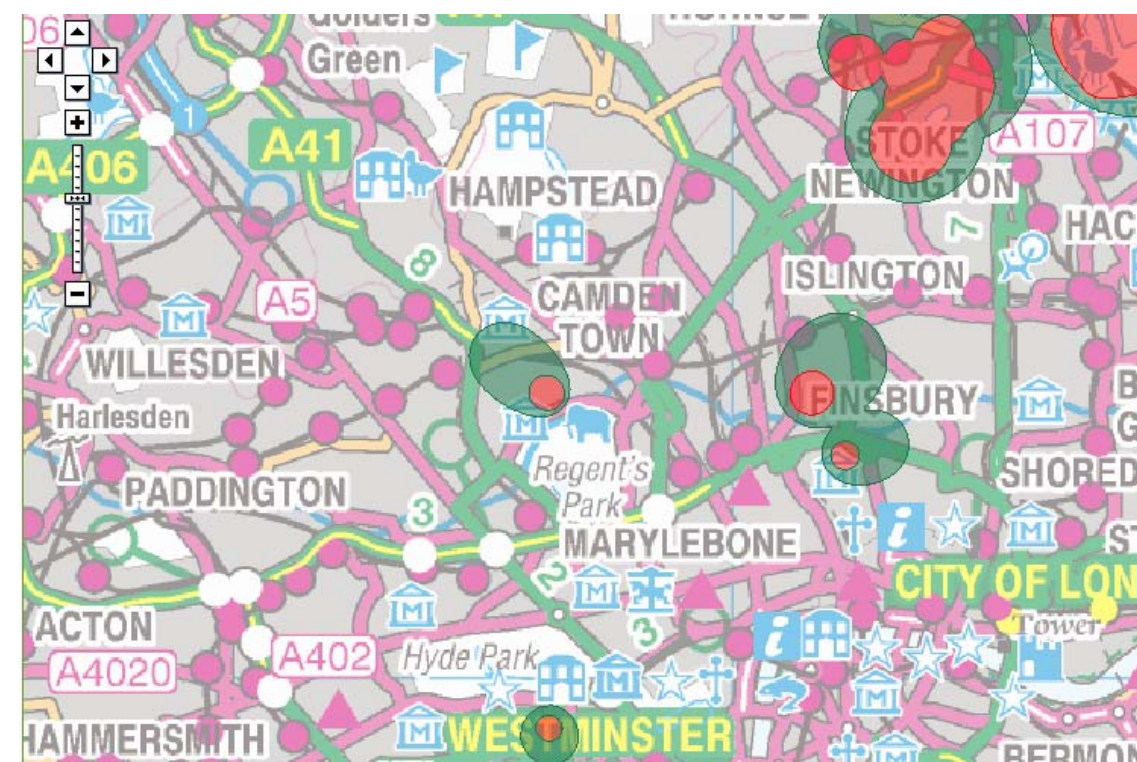
A fourth zone SPZ4 or 'Zone of Special Interest' was previously defined for some sources. SPZ4 usually represented a surface water catchment which drains into the aquifer feeding the groundwater supply (i.e. catchment draining to a disappearing stream). In the future this zone will be incorporated into one of the other zones, SPZ 1, 2 or 3, whichever is appropriate in the particular case, or become a safeguard zone.



C.3 - GROUNDWATER 1:40,000



C.2 - GROUNDWATER 1:20,000

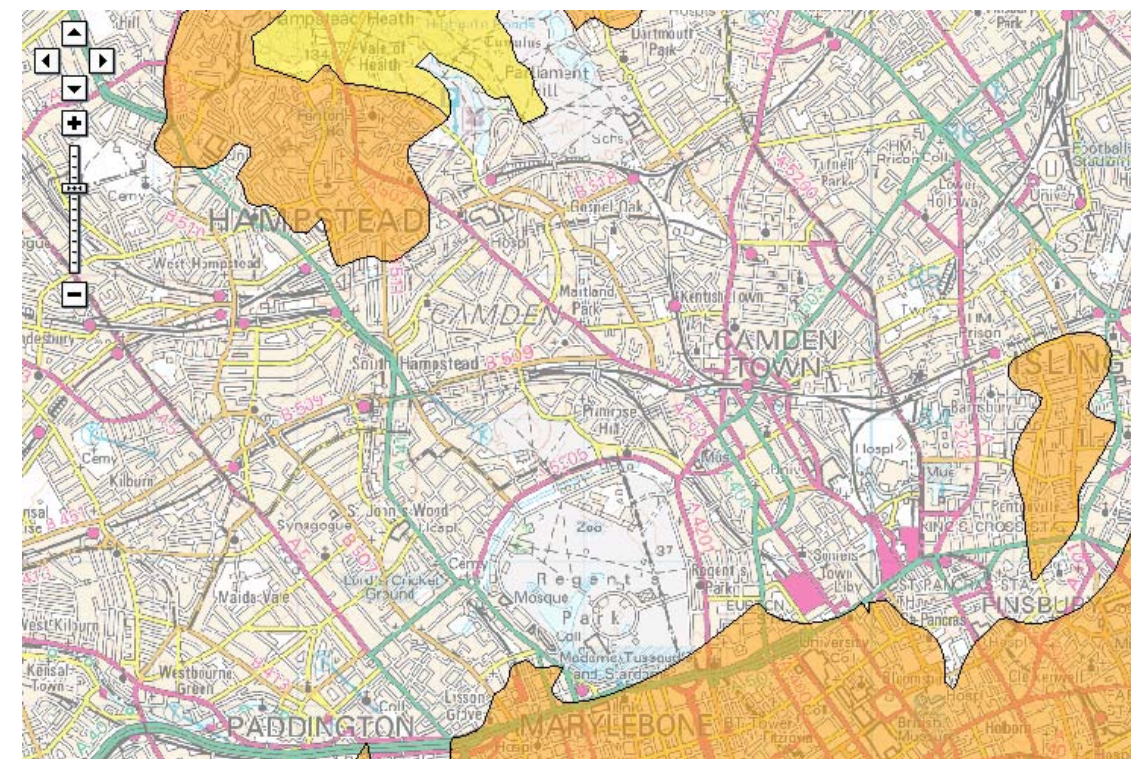


C.4 - GROUNDWATER 1:75,000

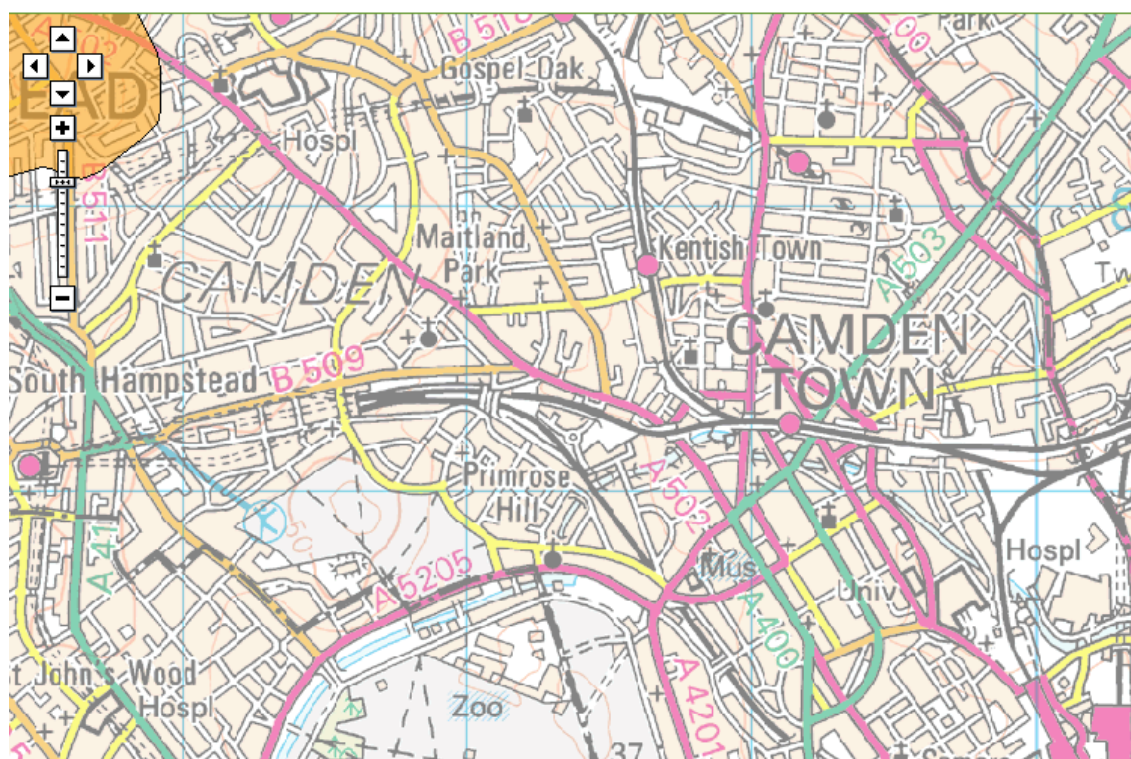
Groundwater – Vulnerability Zones

KEYPLAN

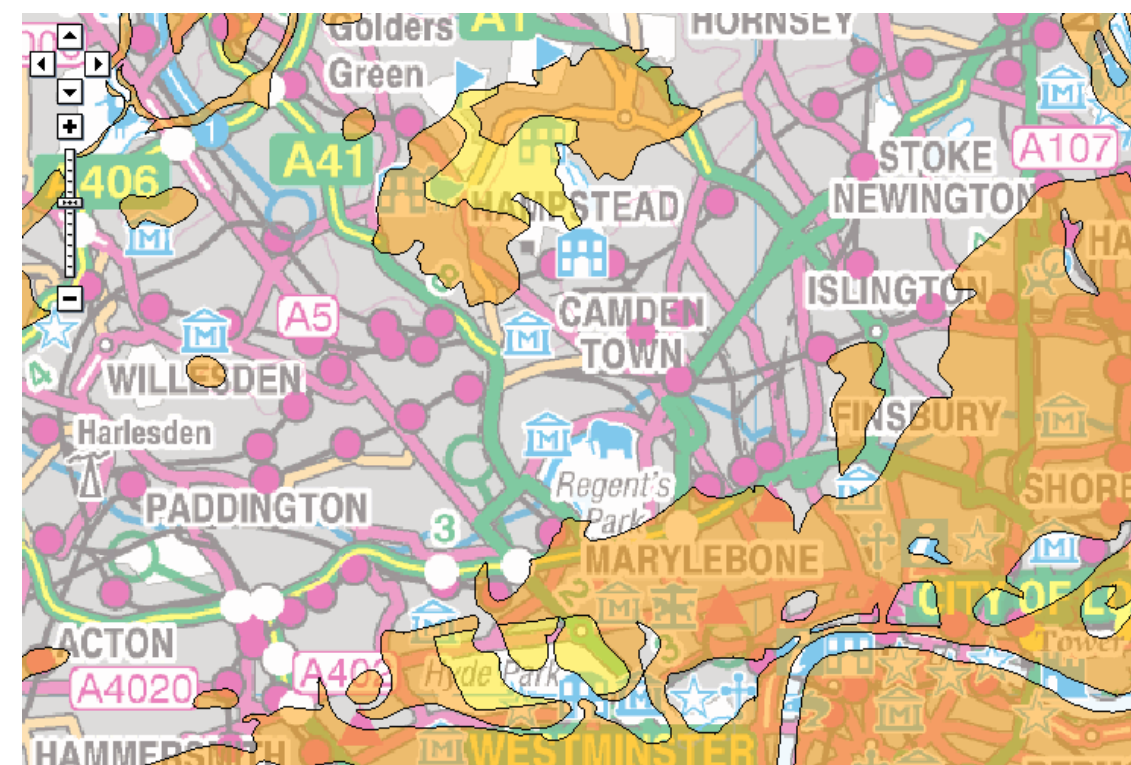
- Major Aquifer High
- Major Aquifer Intermediate
- Major Aquifer Low
- Minor Aquifer High
- Minor Aquifer Intermediate
- Minor Aquifer Low



C.6 -GROUNDWATER 1:40,000



C.5 -GROUNDWATER 1:20,000



C.7 -GROUNDWATER 1:75,000

Groundwater (Aquifer Maps) – Superficial Deposits Designation

KEYPLAN

Principal

These are layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer.

Secondary aquifers are subdivided into two types. These include a wide range of rock layers or drift deposits with an equally wide range of water permeability and storage.

Secondary A

permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers;

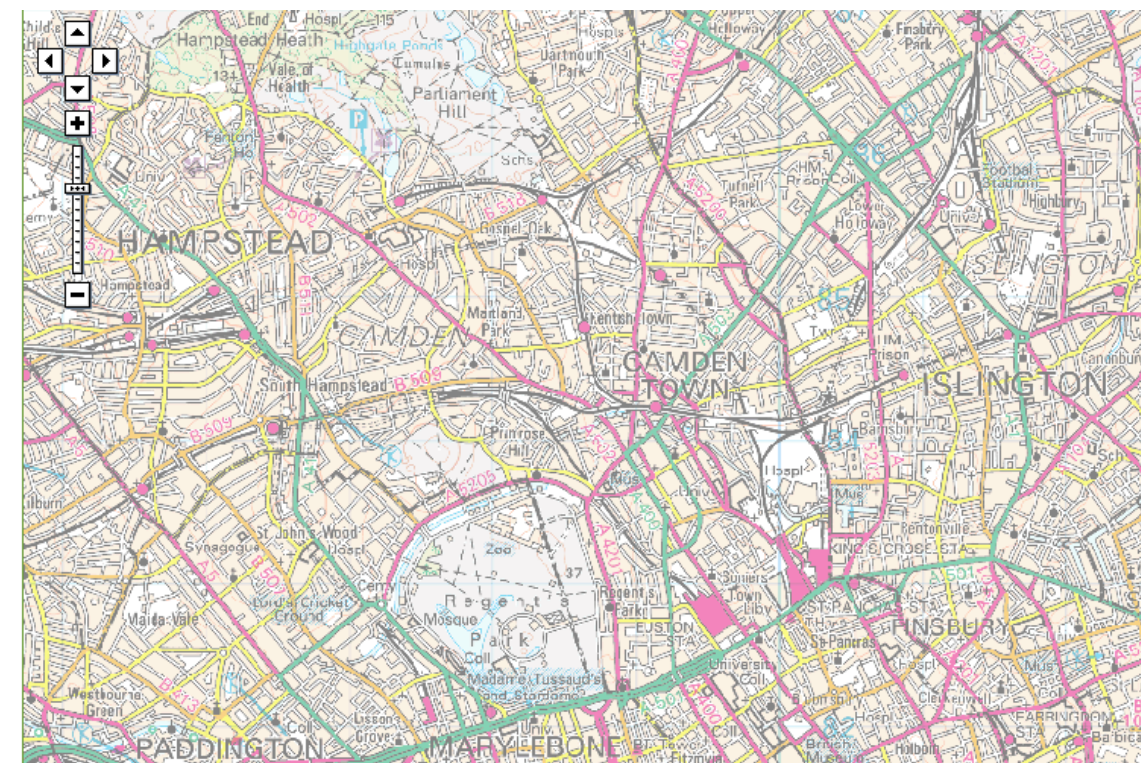
Secondary B

predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.

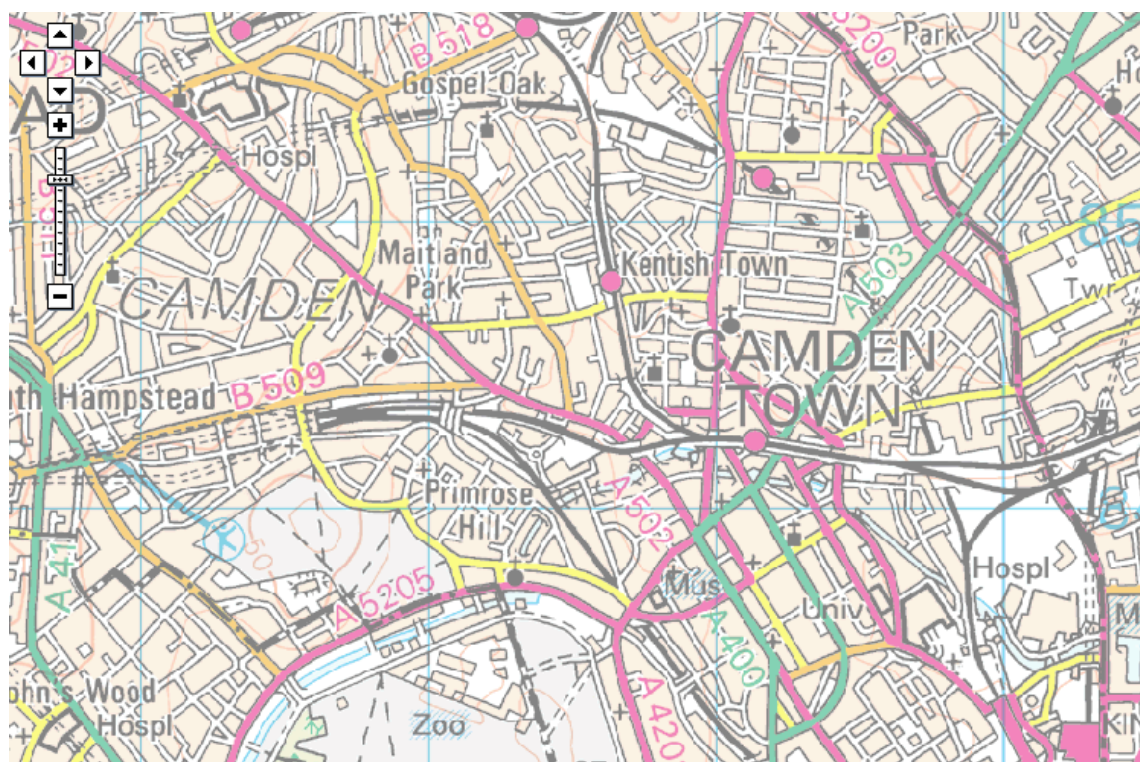
Secondary (undifferentiated)

has been assigned in cases where it has not been possible to attribute either category A or B to a rock type. In most cases, this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.

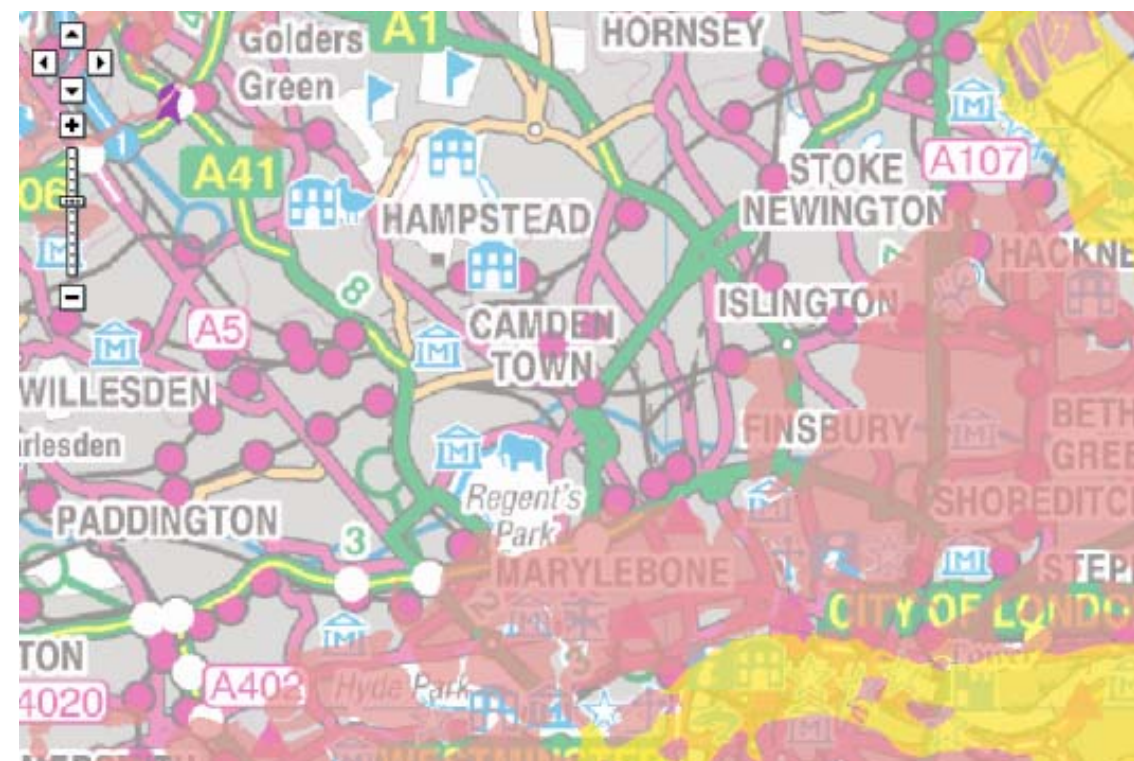
Unknown (lakes and landslip)



C.9 -GROUNDWATER 1:40,000



C.8 -GROUNDWATER 1:20,000



C.10 -GROUNDWATER 1:75,000

Groundwater (Aquifer Maps) – Bedrock Designation

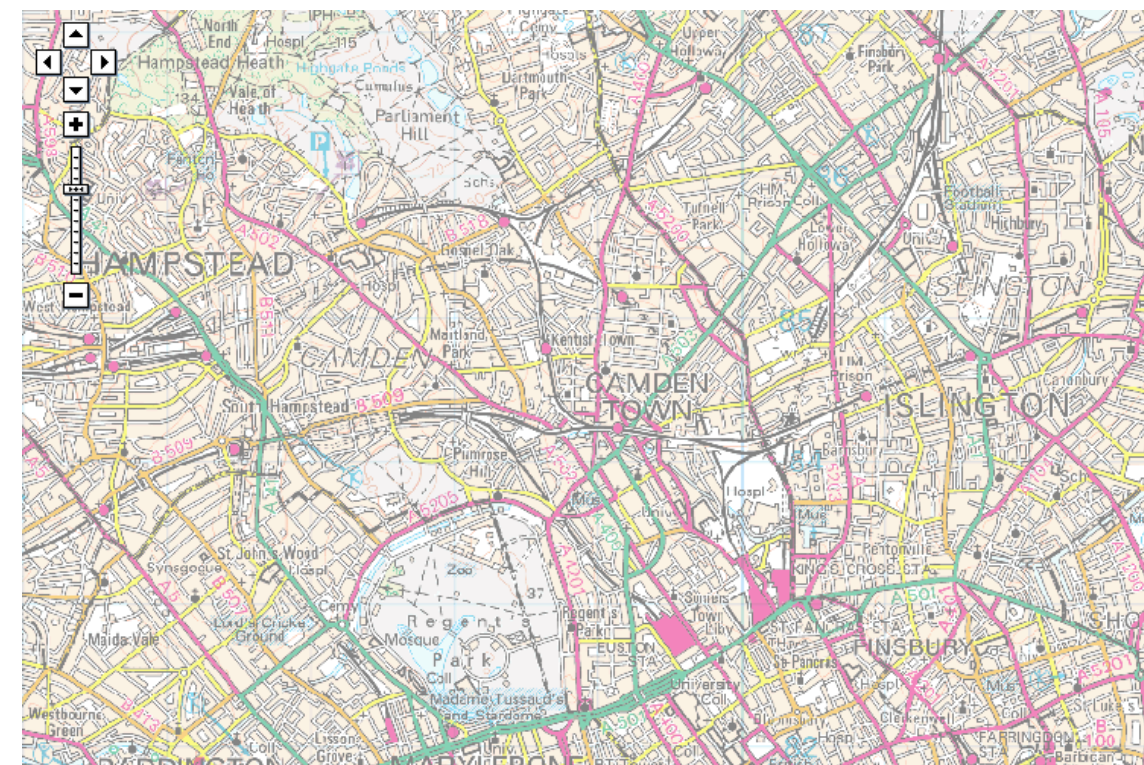
KEYPLAN

- Principal
- Secondary A
- Secondary B
- Secondary (undifferentiated)

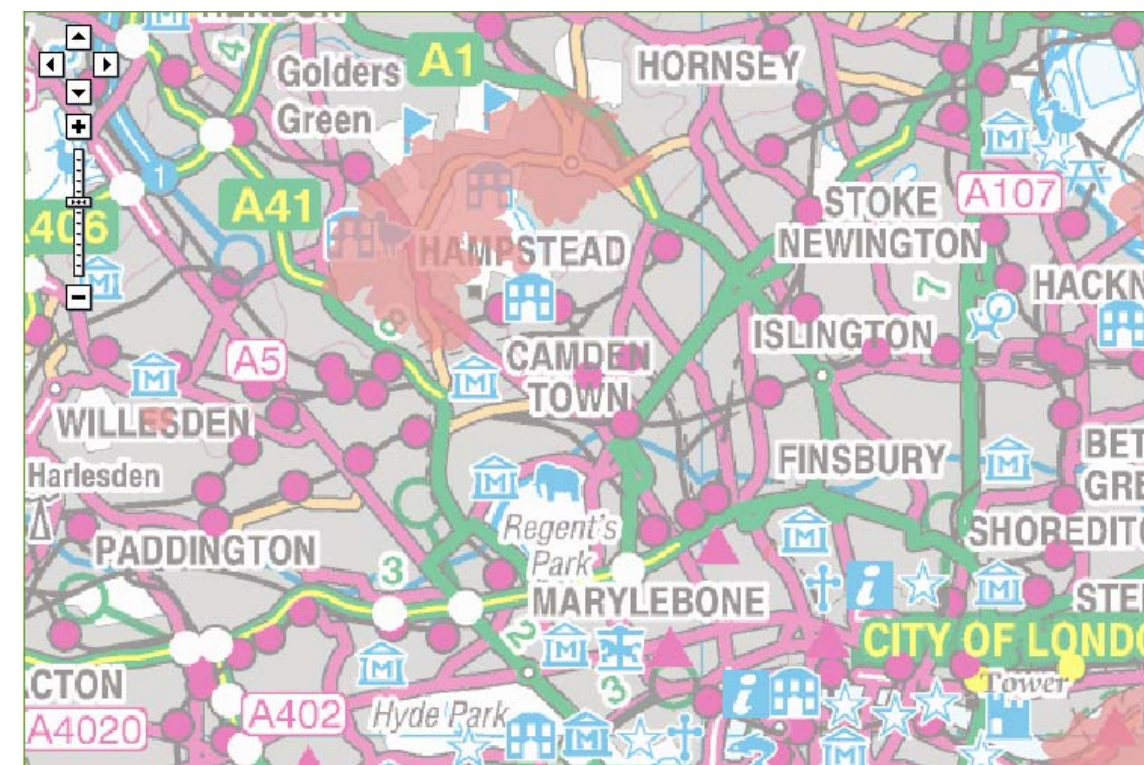
Unproductive Strata

These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

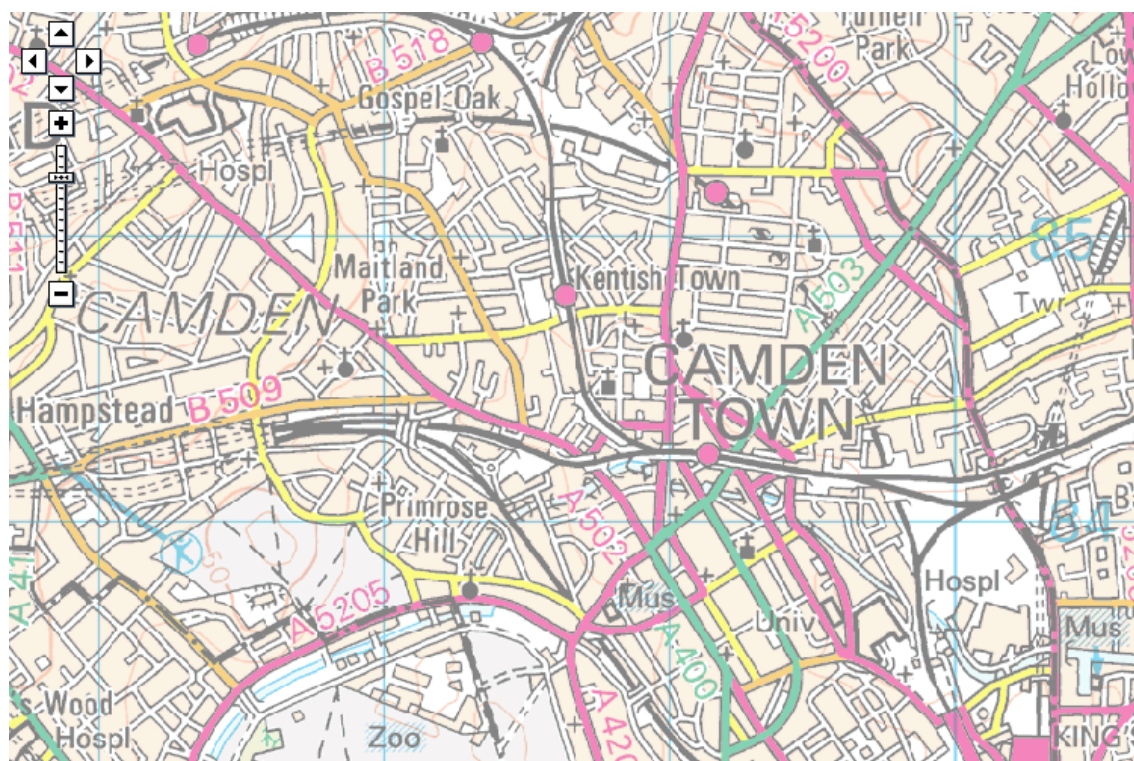
Note: We are only able to display the principal and secondary aquifers as coloured areas on the maps. All uncoloured areas on the bedrock designation map will be unproductive strata. However, for uncoloured areas on the superficial (drift) designation map you will not be able to distinguish between areas of unproductive strata and areas where no drift is present. To do this you will need to consult the published geological survey maps.



C.12 -GROUNDWATER 1:40,000

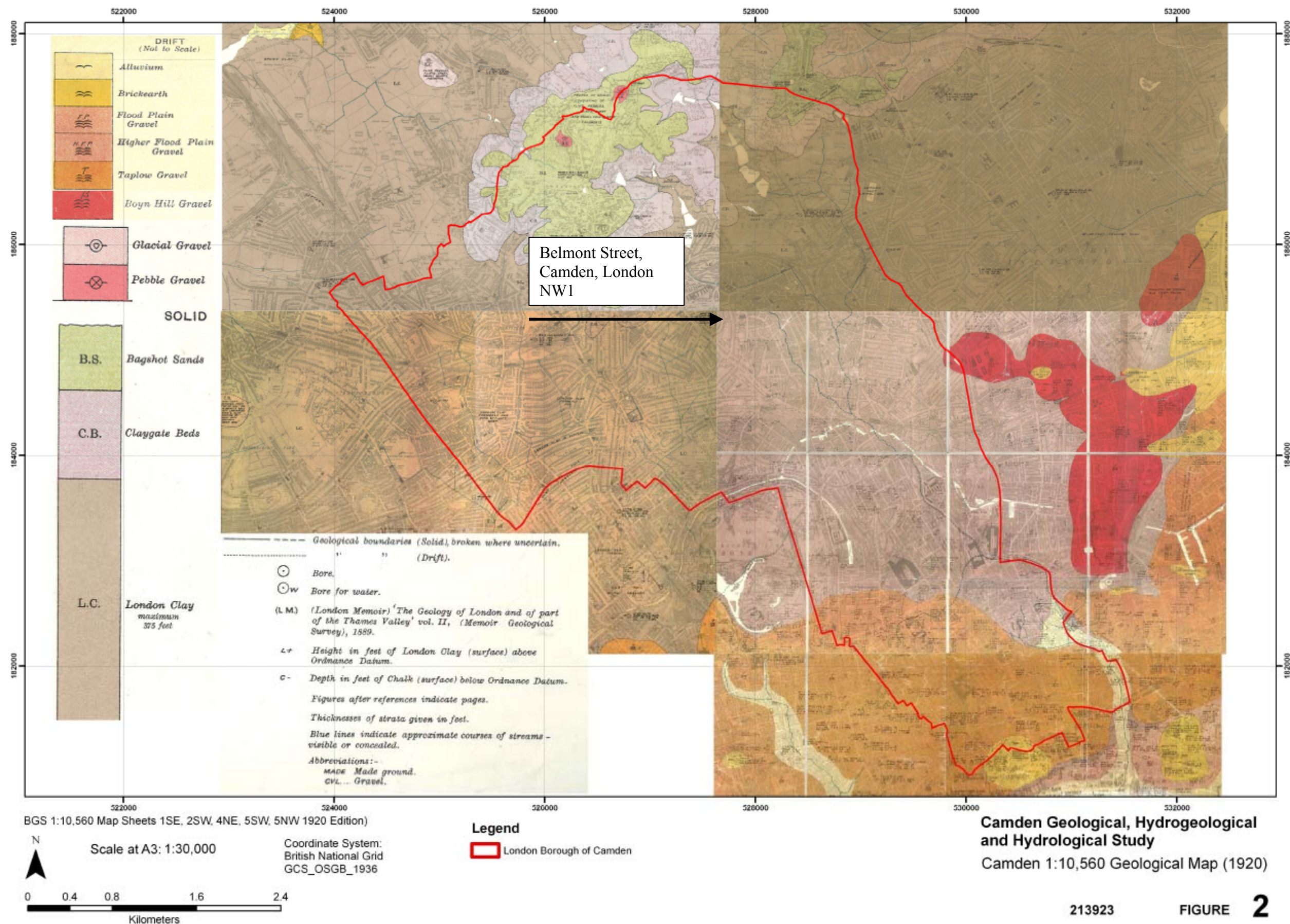


C.13 -GROUNDWATER 1:75,000

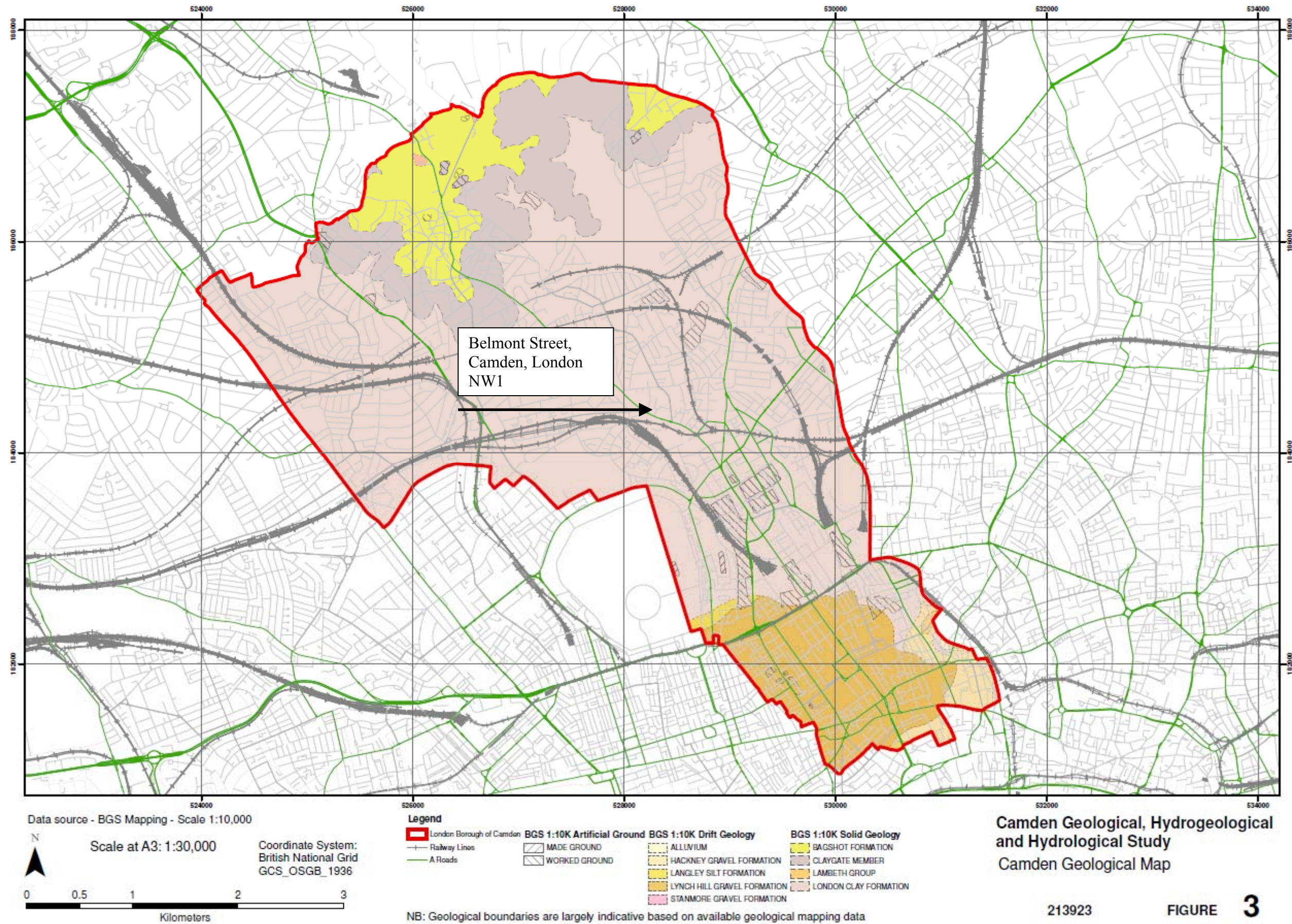


C.11 -GROUNDWATER 1:20,000

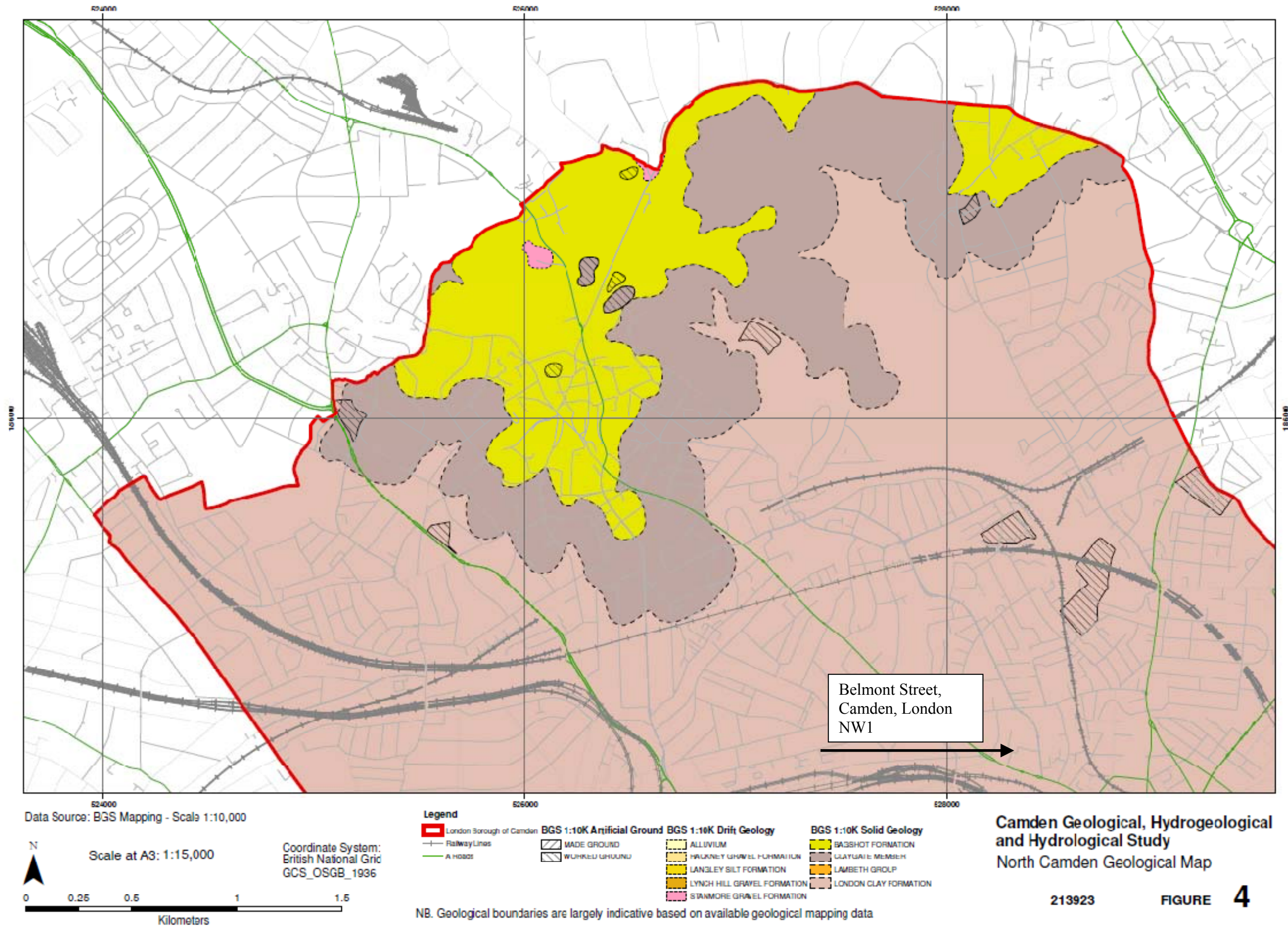
Geology – Bedrock Designation



C.14 –GEOLOGY - GEOLOGICAL MAPPING DATA (1920)



C.15 -GEOLOGY CAMDEN GEOLOGICAL MAP



C.16 –GEOLOGY NORTH CAMDEN GEOLOGICAL MAP