

# 5b. Hydrogeology - Aquifer Within Bedrock Geology and Abstraction Licenses

NW

N

NE

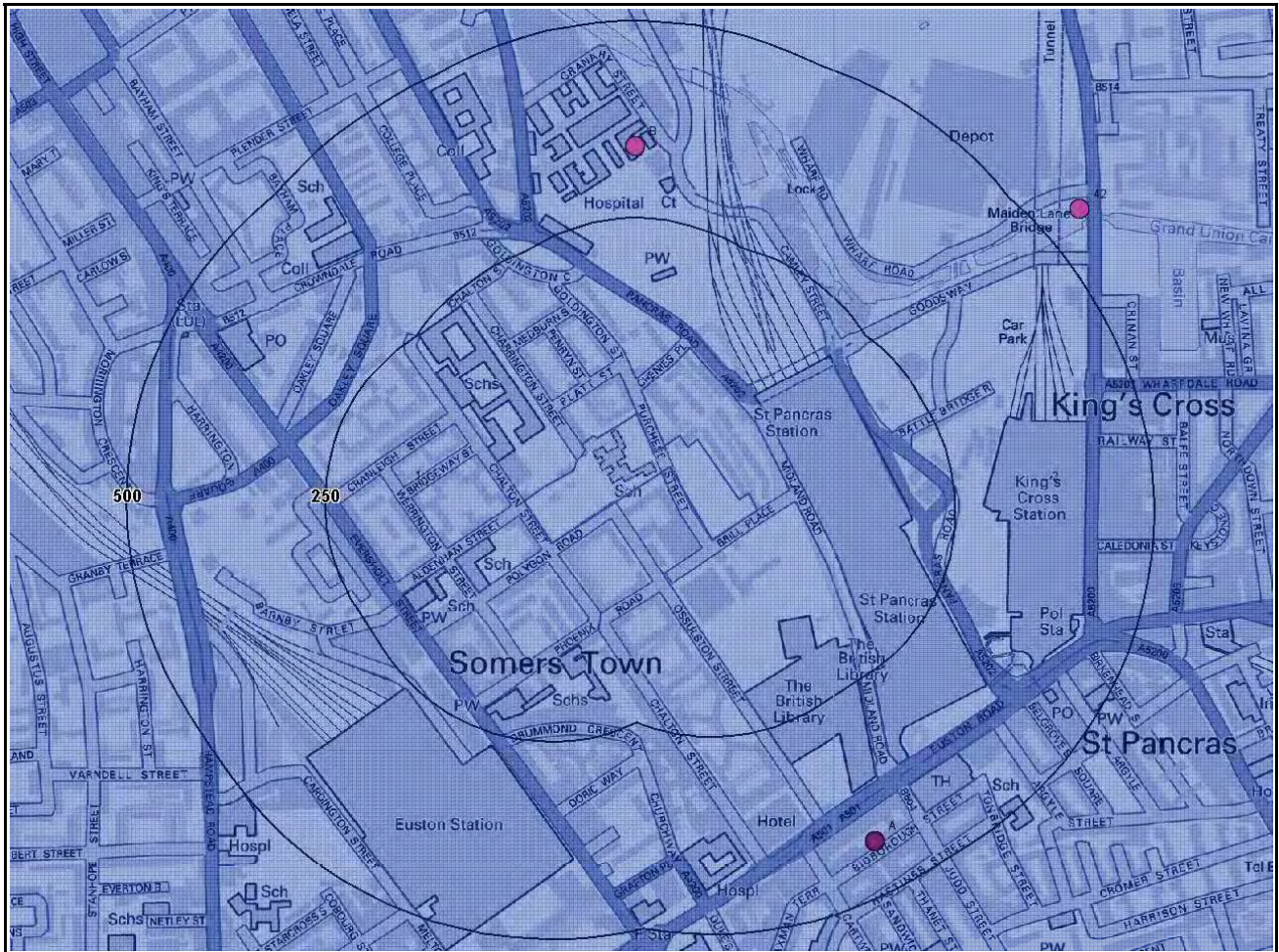
W

E

SW

S

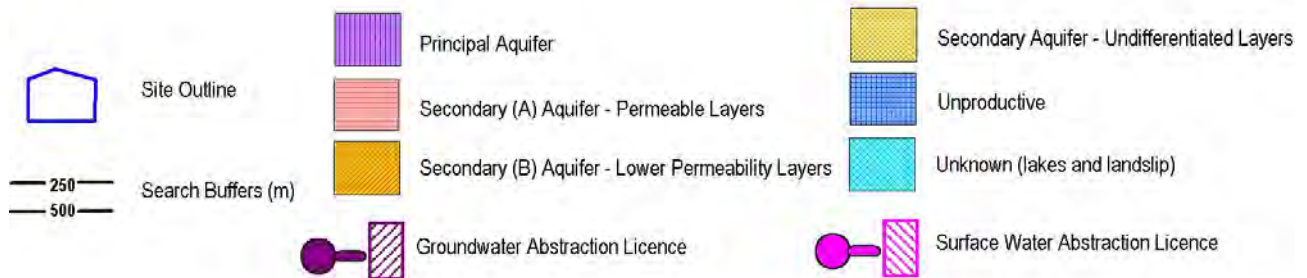
SE



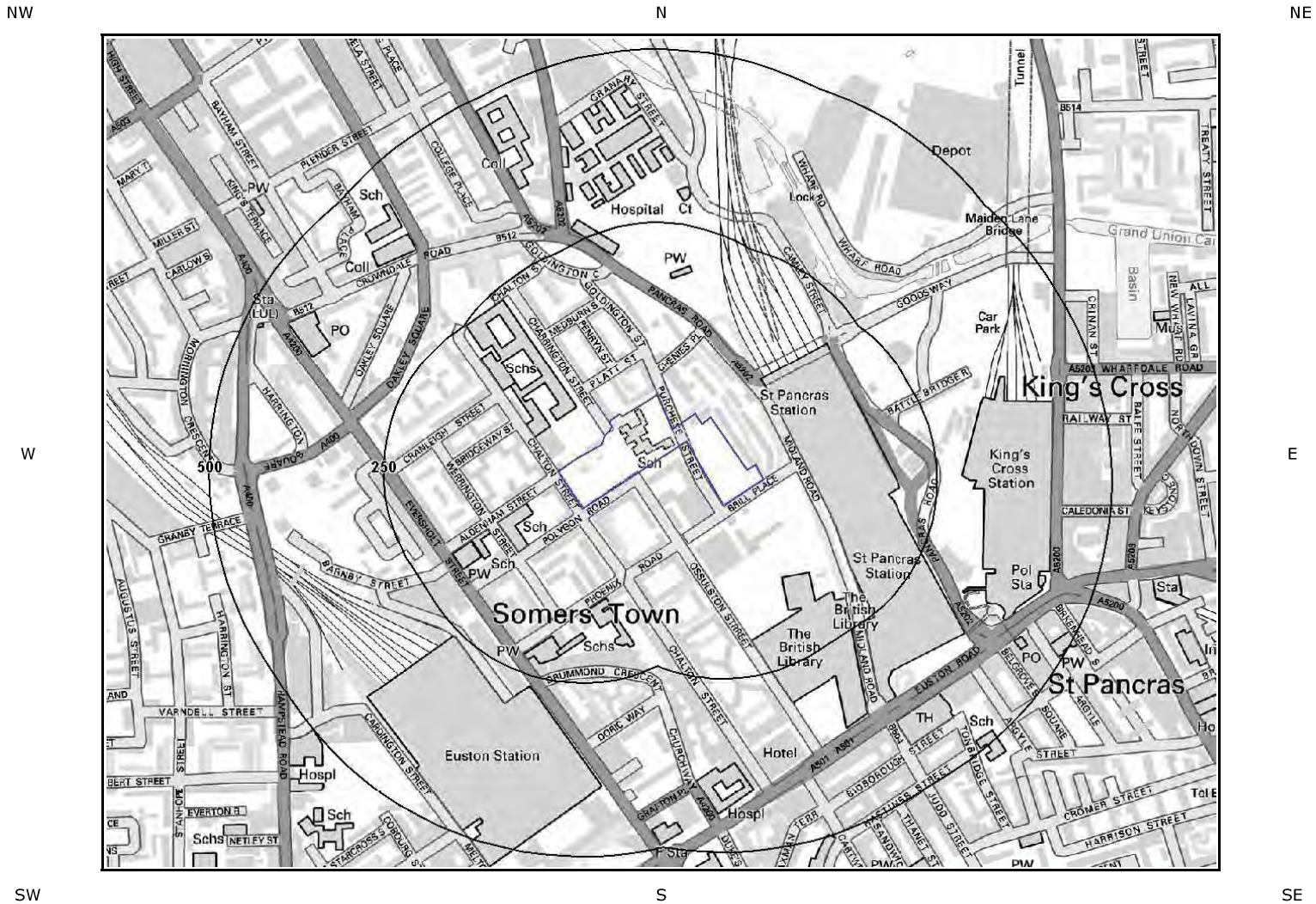
Aquifer Within Bedrock Geology Legend



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# 5c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



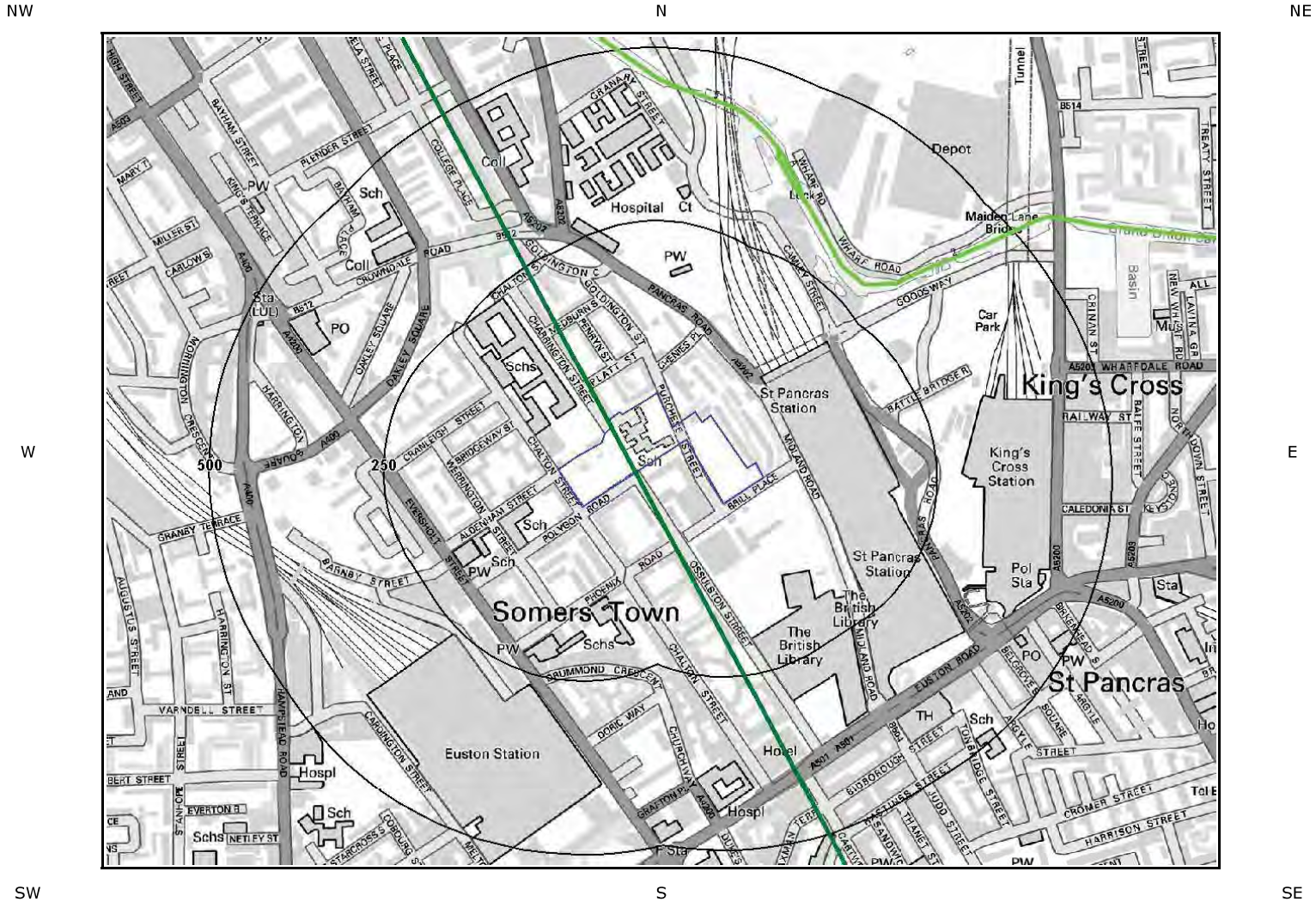
SPZ and Potable Water Abstraction Licenses Legend






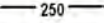


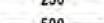








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# 5d. Hydrology – Detailed River Network and River Quality



## Hydrology Legend

- |   |                        |   |                                       |   |                                     |
|---|------------------------|---|---------------------------------------|---|-------------------------------------|
|  | Site Outline           |  | Primary River                         |   | Canal                               |
|  | 250 Search Buffers (m) |  | Secondary River                       |   | Canal Tunnel                        |
|  | 500 Search Buffers (m) |  | Tertiary River                        |   | Extended Culvert (greater than 50m) |
|   |                        |  | Lake/Reservoir                        |   | D/S of High Water Mark              |
|   |                        |  | Underground River (inferred)          |   | D/S seaward extension               |
|   |                        |  | General Quality Assessment: Chemistry |  | General Quality Assessment: Biology |



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## 5. Hydrogeology and Hydrology

### 5.1 Aquifer within Superficial Deposits

**Are there records of productive strata within the superficial geology at or in proximity to the property?** **Yes**

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the GroundSure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (5a):

ID	Distance [m]	Direction	Designation	Description
1	442.0	S	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
2	469.0	SE	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

### 5.2 Aquifer within Bedrock Deposits

**Are there records of productive strata within the bedrock geology at or in proximity to the property?** **Yes**

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the GroundSure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (5b):

ID	Distance [m]	Direction	Designation	Description
1	0.0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
2	95.0	E	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

### 5.3 Groundwater Abstraction Licences

**Are there any Groundwater Abstraction Licences within 2000m of the study site?** **Yes**

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (5b):

ID	Distance	Direction	NGR	Details
3A	434.0	SE	530052, 182718	Licence No: TH/039/0039/001 Details: Heat Pump Direct Source: Thames Groundwater Point: Bidborough House 20 Mabledon Place London Data Type: Point Annual Volume (m <sup>3</sup> ): 327600 Max Daily Volume (m <sup>3</sup> ): 1260 Original Application No: NPSWR000003 Original Start Date: 9/4/2009 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 9/4/2009 Version End Date:

4A	434.0	SE	530052, 182718	Licence No: TH/039/0039/001 Details: Heat Pump Direct Source: Thames Groundwater Point: Borehole At Bidborough House 20 Mabledon Place London Data Type: Point	Annual Volume (m <sup>3</sup> ): 327600 Max Daily Volume (m <sup>3</sup> ): 1260 Original Application No: NPSWR000003 Original Start Date: 9/4/2009 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 9/4/2009 Version End Date:
Not shown	799.0	N	529920, 184040	Licence No: 28/39/39/0222 Details: General Use Relating To Secondary Category (High Loss) Direct Source: Thames Groundwater Point: Kings Cross Concrete Plant- borehole Data Type: Point	Annual Volume (m <sup>3</sup> ): 55200 Max Daily Volume (m <sup>3</sup> ): 200 Original Application No: GEN/39/ Original Start Date: 31/8/2006 Expiry Date: 31/3/2010 Issue No: 1 Version Start Date: 31/8/2006 Version End Date:
Not shown	799.0	N	529920, 184040	Licence No: TH/039/0039/027 Details: General Use Relating To Secondary Category (High Loss) Direct Source: Thames Groundwater Point: Kings Cross Concrete Plant- borehole Data Type: Point	Annual Volume (m <sup>3</sup> ): 33400 Max Daily Volume (m <sup>3</sup> ): 200 Original Application No: NPS/WR/011609 Original Start Date: 21/4/2010 Expiry Date: 31/3/2019 Issue No: 2 Version Start Date: 13/8/2012 Version End Date:
Not shown	1236.0	S		Licence No: TH/039/0039/031 Details: Heat Pump Direct Source: Thames Groundwater Point: Borehole 2, Keppel Street Data Type: Point	Annual Volume (m <sup>3</sup> ): 203407 Max Daily Volume (m <sup>3</sup> ): 558 Original Application No: NPS/WR/004429 Original Start Date: 8/11/2010 Expiry Date: 31/3/2019 Issue No: 1 Version Start Date: 8/11/2010 Version End Date:
Not shown	1236.0	S		Licence No: TH/039/0039/031 Details: Heat Pump Direct Source: Thames Groundwater Point: Keppel Street, Bloomsbury, London - Borehole 2 Data Type: Point	Annual Volume (m <sup>3</sup> ): 203407 Max Daily Volume (m <sup>3</sup> ): 558 Original Application No: NPS/WR/004429 Original Start Date: 8/11/2010 Expiry Date: 31/3/2019 Issue No: 1 Version Start Date: 8/11/2010 Version End Date:
Not shown	1238.0	S		Licence No: TH/039/0039/031 Details: Heat Pump Direct Source: Thames Groundwater Point: Keppel Street, Bloomsbury, London - Borehole 1 Data Type: Point	Annual Volume (m <sup>3</sup> ): 203407 Max Daily Volume (m <sup>3</sup> ): 558 Original Application No: NPS/WR/004429 Original Start Date: 8/11/2010 Expiry Date: 31/3/2019 Issue No: 1 Version Start Date: 8/11/2010 Version End Date:
Not shown	1238.0	S		Licence No: TH/039/0039/031 Details: Heat Pump Direct Source: Thames Groundwater Point: Borehole 1, Keppel Street Data Type: Point	Annual Volume (m <sup>3</sup> ): 203407 Max Daily Volume (m <sup>3</sup> ): 558 Original Application No: NPS/WR/004429 Original Start Date: 8/11/2010 Expiry Date: 31/3/2019 Issue No: 1 Version Start Date: 8/11/2010 Version End Date:
Not shown	1244.0	NE		Licence No: 28/39/39/0207 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Barnard Park, Islington - Borehole Data Type: Point	Annual Volume (m <sup>3</sup> ): 914544 Max Daily Volume (m <sup>3</sup> ): 3024 Original Application No: - Original Start Date: 2/5/2003 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 8/1/2004 Version End Date:
Not shown	1426.0	E		Licence No: 28/39/39/0201 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: New River Head, Finsbury - Borehole Data Type: Point	Annual Volume (m <sup>3</sup> ): 1261440 Max Daily Volume (m <sup>3</sup> ): 3456 Original Application No: WRA/R/2/2 Original Start Date: 8/1/2004 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 8/1/2004 Version End Date:
Not shown	1446.0	SW		Licence No: TH/039/0039/010 Details: Heat Pump Direct Source: Thames Groundwater Point: 10 Weymouth Street, Ridgeford Properties Data Type: Point	Annual Volume (m <sup>3</sup> ): 50000 Max Daily Volume (m <sup>3</sup> ): 400 Original Application No: NPSWR001161 Original Start Date: 13/8/2009 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 13/8/2009 Version End Date:

Not shown	1514.0	SW	Licence No: TH/039/0039/022 Details: Heat Pump Direct Source: Thames Groundwater Point: Confined Chalk, Doric Villa, York Terrace East, London Data Type: Point	Annual Volume (m <sup>3</sup> ): 118260 Max Daily Volume (m <sup>3</sup> ): 324 Original Application No: NPS/WR/002585 Original Start Date: 26/2/2010 Expiry Date: 31/3/2019 Issue No: 1 Version Start Date: 26/2/2010 Version End Date:
Not shown	1514.0	SW	Licence No: TH/039/0039/022 Details: Heat Pump Direct Source: Thames Groundwater Point: Doric Villa, York Terrace East, London Data Type: Point	Annual Volume (m <sup>3</sup> ): 118260 Max Daily Volume (m <sup>3</sup> ): 324 Original Application No: NPS/WR/002585 Original Start Date: 26/2/2010 Expiry Date: 31/3/2019 Issue No: 1 Version Start Date: 26/2/2010 Version End Date:
Not shown	1563.0	E	Licence No: 28/39/39/0188 Details: Water Bottling Direct Source: Thames Groundwater Point: Borehole At Sadlers Wells Theatre, London Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: A/N/6488 Original Start Date: - Expiry Date: 31/12/2004 Issue No: 100 Version Start Date: 29/9/1998 Version End Date:
Not shown	1563.0	E	Licence No: 28/39/39/0188 Details: Non-Evaporative Cooling Direct Source: Thames Groundwater Point: Borehole At Sadlers Wells Theatre, London Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: A/N/6488 Original Start Date: - Expiry Date: 31/12/2004 Issue No: 100 Version Start Date: 29/9/1998 Version End Date:
Not shown	1563.0	E	Licence No: 28/39/39/0188 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole At Sadler's Wells Theatre, London Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 29/9/1998 Expiry Date: 31/12/2004 Issue No: 101 Version Start Date: 18/9/2001 Version End Date:
Not shown	1563.0	E	Licence No: 28/39/39/0188 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole At Sadlers Wells Theatre, London Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: A/N/6488 Original Start Date: - Expiry Date: 31/12/2004 Issue No: 100 Version Start Date: 29/9/1998 Version End Date:
Not shown	1563.0	E	Licence No: 28/39/39/0208 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At Sadler's Wells Theatre, London Data Type: Point	Annual Volume (m <sup>3</sup> ): 473040 Max Daily Volume (m <sup>3</sup> ): 1296 Original Application No: WRA/R/1010 Original Start Date: 13/12/2004 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 13/12/2004 Version End Date:
Not shown	1563.0	E	Licence No: 28/39/39/0188 Details: Non-Evaporative Cooling Direct Source: Thames Groundwater Point: Borehole At Sadler's Wells Theatre, London Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 29/9/1998 Expiry Date: 31/12/2004 Issue No: 101 Version Start Date: 18/9/2001 Version End Date:
Not shown	1563.0	E	Licence No: 28/39/39/0208 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Sadler's Wells Theatre, London Data Type: Point	Annual Volume (m <sup>3</sup> ): 473040 Max Daily Volume (m <sup>3</sup> ): 1296 Original Application No: WRA/R/1010 Original Start Date: 13/12/2004 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 13/12/2004 Version End Date:
Not shown	1563.0	E	Licence No: 28/39/39/0188 Details: Water Bottling Direct Source: Thames Groundwater Point: Borehole At Sadler's Wells Theatre, London Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 29/9/1998 Expiry Date: 31/12/2004 Issue No: 101 Version Start Date: 18/9/2001 Version End Date:

Not shown	1629.0	W	Licence No: 28/39/39/0035 Details: Animal Watering & General Use in non Farming situations Direct Source: Thames Groundwater Point: Borehole At Regent's Park, London Nw1 Data Type: Point	Annual Volume (m <sup>3</sup> ): 681.9 Max Daily Volume (m <sup>3</sup> ): 59 Original Application No: - Original Start Date: 4/4/1966 Expiry Date: - Issue No: 100 Version Start Date: 4/4/1966 Version End Date:
Not shown	1648.0	SW	Licence No: 28/39/39/0215 Details: Non-Evaporative Cooling Direct Source: Thames Groundwater Point: 3-5 Devonshire Place-borehole A Data Type: Point	Annual Volume (m <sup>3</sup> ): 122400 Max Daily Volume (m <sup>3</sup> ): 511 Original Application No: WRA/N/1383 Original Start Date: 24/2/2005 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 24/2/2005 Version End Date:
Not shown	1655.0	SW	Licence No: 28/39/39/0215 Details: Non-Evaporative Cooling Direct Source: Thames Groundwater Point: 20 Devonshire Place, London-borehole A Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: WRA/N/1383 Original Start Date: 24/2/2005 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 24/2/2005 Version End Date:
Not shown	1662.0	SW	Licence No: 28/39/39/0215 Details: Non-Evaporative Cooling Direct Source: Thames Groundwater Point: 3-5 Devonshire Place-borehole B Data Type: Point	Annual Volume (m <sup>3</sup> ): 122400 Max Daily Volume (m <sup>3</sup> ): 511 Original Application No: WRA/N/1383 Original Start Date: 24/2/2005 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 24/2/2005 Version End Date:
Not shown	1669.0	SW	Licence No: 28/39/39/0215 Details: Non-Evaporative Cooling Direct Source: Thames Groundwater Point: 20 Devonshire Place, London-borehole B Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: WRA/N/1383 Original Start Date: 24/2/2005 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 24/2/2005 Version End Date:
Not shown	1721.0	NW	Licence No: 28/39/39/0091 Details: Laundry Use Direct Source: Thames Groundwater Point: Two Bores At Kentish Town Sports Centre, Prince Of Wales St Data Type: Point	Annual Volume (m <sup>3</sup> ): 94506 Max Daily Volume (m <sup>3</sup> ): 1813.8 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: 5/4/2012 Version End Date:
Not shown	1721.0	NW	Licence No: 28/39/39/0091 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Kentish Town Sports Centre, Prince Of Wales St Data Type: Point	Annual Volume (m <sup>3</sup> ): 17997 Max Daily Volume (m <sup>3</sup> ): 604.6 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: 25/5/2012 Version End Date:
Not shown	1721.0	NW	Licence No: 28/39/39/0091 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Two Bores At Kentish Town Sports Centre, Prince Of Wales St Data Type: Point	Annual Volume (m <sup>3</sup> ): 94506 Max Daily Volume (m <sup>3</sup> ): 1813.8 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: 5/4/2012 Version End Date:
Not shown	1721.0	NW	Licence No: 28/39/39/0091 Details: Process Water Direct Source: Thames Groundwater Point: Two Bores At Kentish Town Sports Centre, Prince Of Wales St Data Type: Point	Annual Volume (m <sup>3</sup> ): 94506 Max Daily Volume (m <sup>3</sup> ): 1813.8 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: 5/4/2012 Version End Date:
Not shown	1721.0	NW	Licence No: 28/39/39/0091 Details: Process Water Direct Source: Thames Groundwater Point: Kentish Town Sports Centre, Prince Of Wales St Data Type: Point	Annual Volume (m <sup>3</sup> ): 17997 Max Daily Volume (m <sup>3</sup> ): 604.6 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: 25/5/2012 Version End Date:

Not shown	1780.0	S	Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole 'b' At Walmer House, 296 Regent Street, London W1 Data Type: Point	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: 26/11/1979 Version End Date:
Not shown	1780.0	S	Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London W1-borehole B Data Type: Point	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: 26/11/1979 Version End Date:
Not shown	1857.0	S	Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London, W1b - Borehole 'a' Data Type: Point	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: NPS/WR/011671 Original Start Date: 11/10/1971 Expiry Date: - Issue No: 102 Version Start Date: 29/11/2012 Version End Date:
Not shown	1876.0	S	Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London, W1b - Borehole 'b' Data Type: Point	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: NPS/WR/011671 Original Start Date: 11/10/1971 Expiry Date: - Issue No: 102 Version Start Date: 29/11/2012 Version End Date:
Not shown	1907.0	S	Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole 'a' At Walmer House, 296 Regent Street, London W1 Data Type: Point	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: 26/11/1979 Version End Date:
Not shown	1907.0	S	Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London W1-borehole A Data Type: Point	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: 26/11/1979 Version End Date:

## 5.4 Surface Water Abstraction Licences

**Are there any Surface Water Abstraction Licences within 2000m of the study site?**

**Yes**

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (5b):

ID	Distance	Direction	NGR	Details
40B	341.0	N	529750, 183600	Licence No: 28/39/39/0172 Details: Make-Up or Top Up Water Direct Source: Thames Surface Water - Non Tidal Point: Grand Union Canal At Camley Street Nature Park, London Data Type: Point Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: - Original Start Date: 18/9/1991 Expiry Date: - Issue No: 100 Version Start Date: 18/9/1991 Version End Date:
41B	341.0	N	529750, 183600	Licence No: 28/39/39/0172 Details: Make-Up or Top Up Water Direct Source: Thames Surface Water - Non Tidal Point: Camley Street Nature Park, London Data Type: Point Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 18/9/1991 Version End Date:



42	552.0	NE	530310, 183520	Licence No: 28/39/39/0164 Details: Non-Evaporative Cooling Direct Source: Thames Surface Water - Non Tidal Point: Maiden Lane Bridge, London, NW1 - Regents Canal Data Type: Point	Annual Volume (m <sup>3</sup> ): 7010000 Max Daily Volume (m <sup>3</sup> ): 19520 Application No: - Original Start Date: 18/7/1980 Expiry Date: - Issue No: 101 Version Start Date: 17/12/2007 Version End Date:
Not shown	1411.0	NW	528500, 184020	Licence No: 28/39/39/0164 Details: Non-Evaporative Cooling Direct Source: Thames Surface Water - Non Tidal Point: Southampton Bridge, London, NW8 - Regents Canal Data Type: Point	Annual Volume (m <sup>3</sup> ): 7010000 Max Daily Volume (m <sup>3</sup> ): 19520 Application No: - Original Start Date: 18/7/1980 Expiry Date: - Issue No: 101 Version Start Date: 17/12/2007 Version End Date:
Not shown	1419.0	NW	528490, 184020	Licence No: 28/39/39/0173 Details: Non-Evaporative Cooling Direct Source: Thames Surface Water - Non Tidal Point: Oval Road, Camden - Grand Union Regents Canal Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: - Original Start Date: 8/12/1994 Expiry Date: - Issue No: 100 Version Start Date: 8/12/1994 Version End Date:

## 5.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site?

Yes

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (5c):

ID	Distance	Direction	NGR	Details	
Not shown	1244.0	NE	531020, 183690	Licence No: 28/39/39/0207 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Barnard Park, Islington - Borehole Data Type: Point	Annual Volume (m <sup>3</sup> ): 914544 Max Daily Volume (m <sup>3</sup> ): 3024 Original Application No: - Original Start Date: 2/5/2003 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: Version End Date:
Not shown	1426.0	E	531280, 182760	Licence No: 28/39/39/0201 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: New River Head, Finsbury - Borehole Data Type: Point	Annual Volume (m <sup>3</sup> ): 1261440 Max Daily Volume (m <sup>3</sup> ): 3456 Original Application No: WRA/R/2/2 Original Start Date: 8/1/2004 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: Version End Date:
Not shown	1563.0	E	531450, 182900	Licence No: 28/39/39/0208 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Sadler's Wells Theatre, London Data Type: Point	Annual Volume (m <sup>3</sup> ): 473040 Max Daily Volume (m <sup>3</sup> ): 1296 Original Application No: WRA/R/1010 Original Start Date: 13/12/2004 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: Version End Date:
Not shown	1563.0	E	531450, 182900	Licence No: 28/39/39/0188 Details: Water Bottling Direct Source: Thames Groundwater Point: Borehole At Sadler's Wells Theatre, London Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 29/9/1998 Expiry Date: 31/12/2004 Issue No: 101 Version Start Date: Version End Date:
Not shown	1563.0	E	531450, 182900	Licence No: 28/39/39/0188 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole At Sadler's Wells Theatre, London Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 29/9/1998 Expiry Date: 31/12/2004 Issue No: 101 Version Start Date: Version End Date:

Report Reference: EMS-203746\_296431

Not shown	1563.0	E	531450, 182900	Licence No: 28/39/39/0208 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At Sadler's Wells Theatre, London Data Type: Point	Annual Volume (m <sup>3</sup> ): 473040 Max Daily Volume (m <sup>3</sup> ): 1296 Original Application No: WRA/R/1010 Original Start Date: 13/12/2004 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: Version End Date:
Not shown	1563.0	E	531450, 182900	Licence No: 28/39/39/0188 Details: Water Bottling Direct Source: Thames Groundwater Point: Borehole At Sadlers Wells Theatre, London Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: A/N/6488 Original Start Date: - Expiry Date: 31/12/2004 Issue No: 100 Version Start Date: Version End Date:
Not shown	1563.0	E	531450, 182900	Licence No: 28/39/39/0188 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole At Sadlers Wells Theatre, London Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: A/N/6488 Original Start Date: - Expiry Date: 31/12/2004 Issue No: 100 Version Start Date: Version End Date:
Not shown	1721.0	NW	528800, 184700	Licence No: 28/39/39/0091 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Kentish Town Sports Centre, Prince Of Wales St Data Type: Point	Annual Volume (m <sup>3</sup> ): 17997 Max Daily Volume (m <sup>3</sup> ): 604.6 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: Version End Date:
Not shown	1721.0	NW	528800, 184700	Licence No: 28/39/39/0091 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Two Bores At Kentish Town Sports Centre, Prince Of Wales St Data Type: Point	Annual Volume (m <sup>3</sup> ): 94506 Max Daily Volume (m <sup>3</sup> ): 1813.8 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: Version End Date:
Not shown	1780.0	S	529100, 181400	Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London W1-borehole B Data Type: Point	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
Not shown	1780.0	S	529100, 181400	Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole 'b' At Walmer House, 296 Regent Street, London W1 Data Type: Point	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
Not shown	1857.0	S	529010, 181350	Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London, W1b - Borehole 'a' Data Type: Point	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: NPS/WR/011671 Original Start Date: 11/10/1971 Expiry Date: - Issue No: 102 Version Start Date: Version End Date:
Not shown	1876.0	S	529010, 181330	Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London, W1b - Borehole 'b' Data Type: Point	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: NPS/WR/011671 Original Start Date: 11/10/1971 Expiry Date: - Issue No: 102 Version Start Date: Version End Date:

Not shown	1907.0	S	529000, 181300	Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole 'a' At Walmer House, 296 Regent Street, London W1 Data Type: Point	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
Not shown	1907.0	S	529000, 181300	Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London W1-borehole A Data Type: Point	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:

## 5.6 Source Protection Zones

**Are there any Source Protection Zones within 500m of the study site?** **No**

Database searched and no data found.

## 5.7 River Quality

**Is there any Environment Agency information on river quality within 1500m of the study site?** **Yes**

### Biological Quality:

Biological Quality data describes water quality in terms of 83 groups of macroinvertebrates, some of which are pollution sensitive. The results are graded from A ('Very Good') to F ('Bad').

The following Biological Quality records are shown on the Hydrology Map (5d):

ID	Distance [m]	Direction	NGR	River Details	Biological Quality Grade				
					2005	2006	2007	2008	2009
Not shown	1027.0	NW	529150, 184100	River Name: Grand Union Canal (paddington Arm) Reach: Canal Feeder - Camden Road End/Start of Stretch: End of Stretch NGR	F	F	F	F	E

### Chemical Quality:

Database searched and no data found.

## 5.8 Detailed River Network

**Are there any Detailed River Network entries within 500m of the study site?** **Yes**

The following Detailed River Network records are represented on the Hydrology Map (5d):

ID	Distance	Direction	Details	
1	0.0	On Site	River Name: Regent's Canal Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined

Report Reference: EMS-203746\_296431

2	287.0	NE	River Name: Grand Union Canal Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Canal Catchment: - Drain: NO Main River Status: Currently Undefined
3A	340.0	NE	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Canal Catchment: - Drain: NO Main River Status: Currently Undefined
4A	340.0	NE	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Canal Catchment: - Drain: NO Main River Status: Currently Undefined
5	395.0	NE	River Name: Union Canal Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Canal Catchment: - Drain: NO Main River Status: Currently Undefined

## 5.9 Surface Water Features

**Are there any surface water features within 250m of the study site?**

**No**

Database searched and no data found.

# 6. Environment Agency Flood Map

NW

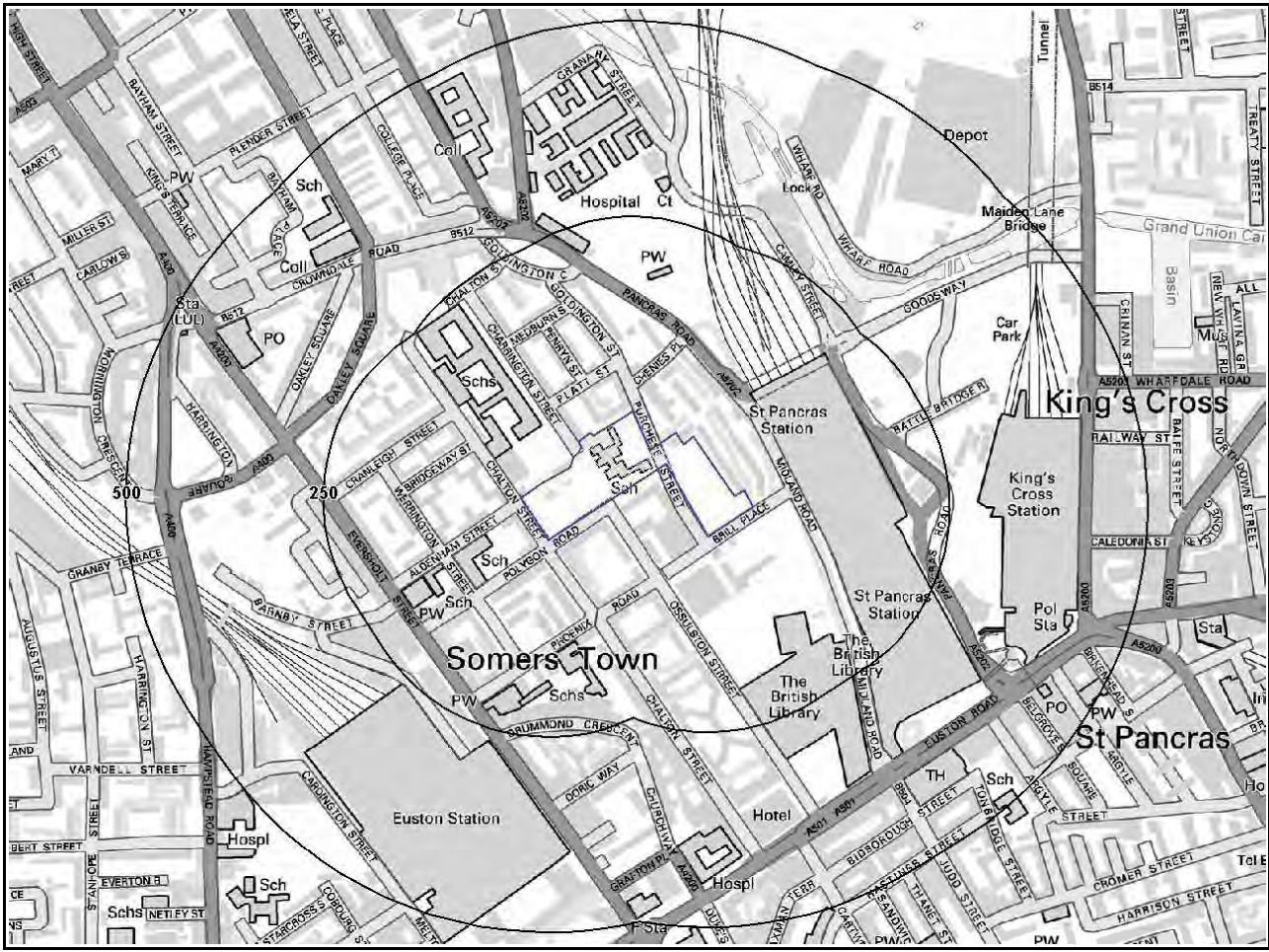
NE

W

E

SW








SE



Environment Agency Flood Legend



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-  Zone 2 Floodplain
-  Zone 3 Floodplain
-  Flood Storage Area
-  Area Benefiting from Flood Defences
-  Flood Defences
-  Site Outline
-  Search Buffers (m)

---

## 6. Flooding

### 6.1 Zone 2 Flooding

Zone 2 floodplain estimates the annual probability of flooding as one in one thousand (0.1%) or greater from rivers and the sea but less than 1% from rivers or 0.5% from the sea. Alternatively, where information is available they may show the highest known flood level.

**Is the site within 250m of an Environment Agency indicative Zone 2 floodplain?** **No**

Database searched and no data found.

---

### 6.2 Zone 3 Flooding

Zone 3 estimates the annual probability of flooding as one in one hundred (1%) or greater from rivers and a one in two hundred (0.5%) or greater from the sea. Alternatively, where information is available they may show the highest known flood level.

**Is the site within 250m of an Environment Agency indicative Zone 3 floodplain?** **No**

Database searched and no data found.

---

### 6.3 Flood Defences

**Are there any Flood Defences within 250m of the study site?** **No**

---

### 6.4 Areas benefiting from Flood Defences

**Are there any areas benefiting from Flood Defences within 250m of the study site?** **No**

---

### 6.5 Areas used for Flood Storage

**Are there any areas used for Flood Storage within 250m of the study site?** **No**

---

### 6.6 Groundwater Flooding Susceptibility Areas

**Are there any British Geological Survey groundwater flooding susceptibility flood areas within 50m of the boundary of the study site?** **No**

---

**What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?** **Negligible**

---

---

## 6.7 Groundwater Flooding Confidence Areas

**What is the British Geological Survey confidence rating in this result?**

**Not Applicable**

---

**Notes:**

Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

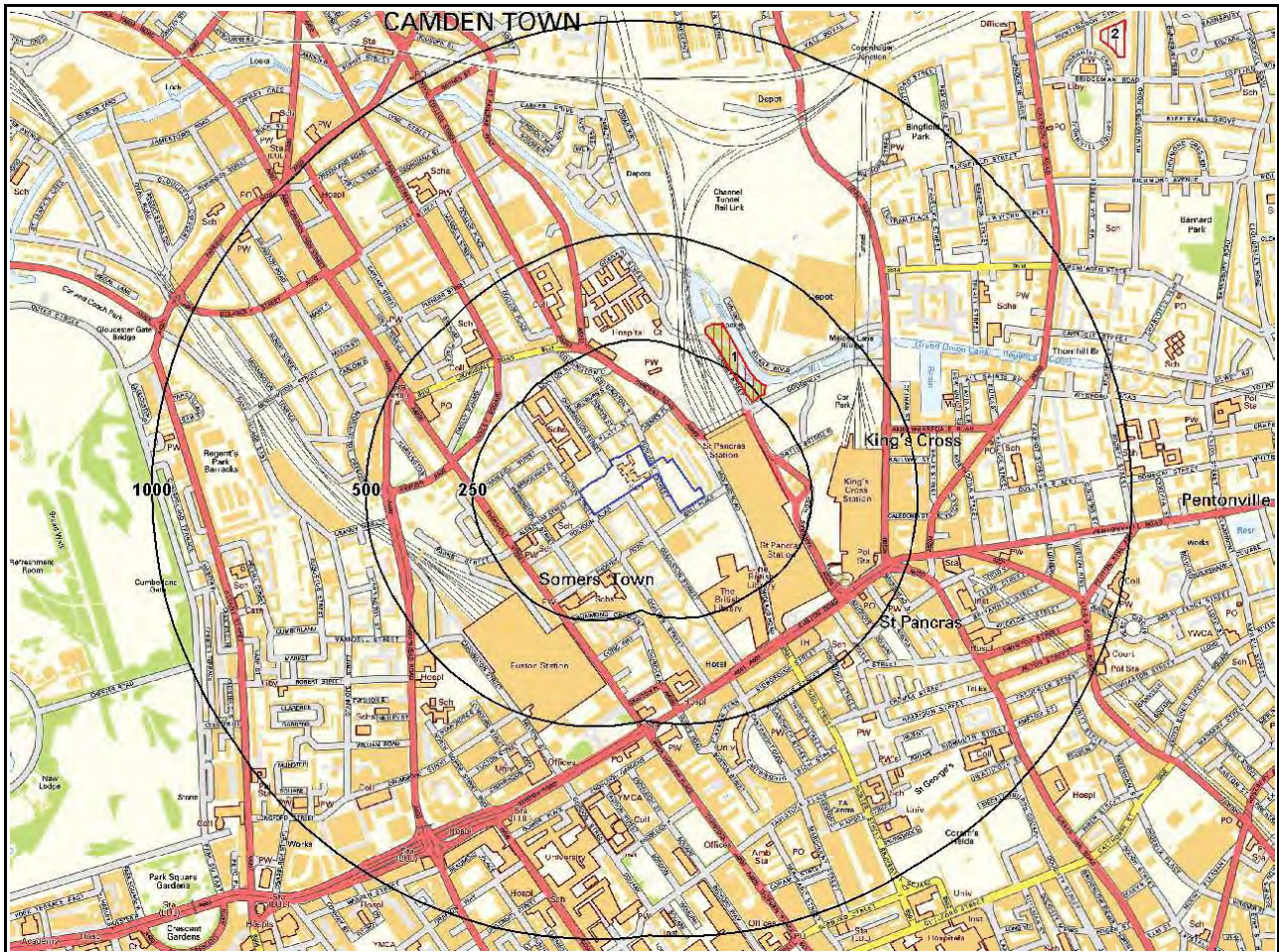
The **confidence rating** is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

# 7. Designated Environmentally Sensitive Sites Map

NW



NE



SW

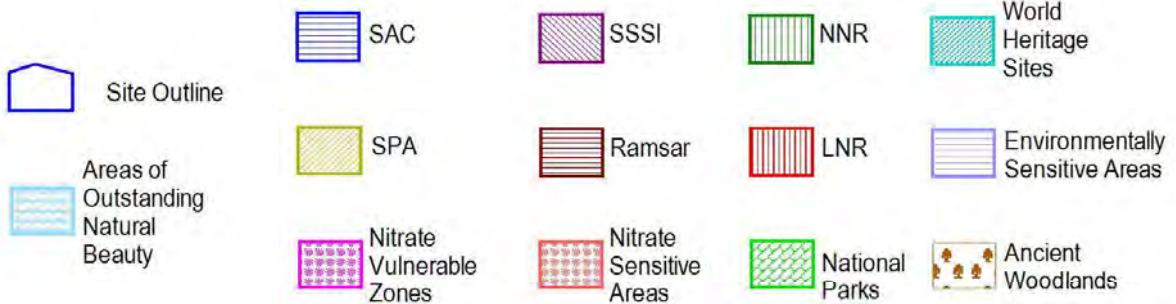
SE



Designated Environmentally Sensitive Sites Legend



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## 7. Designated Environmentally Sensitive Sites

**Presence of Designated Environmentally Sensitive Sites within 2000m of the study site?** **Yes**

**Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:** **0**

Database searched and no data found.

**Records of National Nature Reserves (NNR) within 2000m of the study site:** **0**

Database searched and no data found.

**Records of Special Areas of Conservation (SAC) within 2000m of the study site:** **0**

Database searched and no data found.

**Records of Special Protection Areas (SPA) within 2000m of the study site:** **0**

Database searched and no data found.

**Records of Ramsar sites within 2000m of the study site:** **0**

Database searched and no data found.

**Records of Local Nature Reserves (LNR) within 2000m of the study site:** **2**

The following Local Nature Reserve (LNR) records provided by Natural England/Countryside Council for Wales and Scottish Natural Heritage are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance	Direction	LNR Name	Data Source
1	229.0	NE	Camley Street Nature Park	Natural England
2	1407.0	NE	Barnsbury Wood	Natural England

**Records of World Heritage Sites within 2000m of the study site:** **0**

Database searched and no data found.

**Records of Environmentally Sensitive Areas within 2000m of the study site:** **0**

Database searched and no data found.

**Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:** **0**

Database searched and no data found.

---

**Records of National Parks (NP) within 2000m of the study site: 0**

Database searched and no data found.

---

**Records of Nitrate Sensitive Areas within 2000m of the study site: 0**

Database searched and no data found.

---

**Records of Nitrate Vulnerable Zones within 2000m of the study site: 0**

Database searched and no data found.

---

**Records of Ancient Woodland within 2000m of the study site: 0**

Database searched and no data found.

## 8. Natural Hazards Findings

### 8.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a GroundSure GeoInsight, available from our website. The following information has been found:

#### 8.1.1 Shrink Swell

**What is the maximum Shrink-Swell\* hazard rating identified on the study site? Moderate**

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Ground conditions predominantly high plasticity. Do not plant or remove trees or shrubs near to buildings without expert advice about their effect and management. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a probable increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a probable increase in insurance risk during droughts or where vegetation with high moisture demands is present.

#### 8.1.2 Landslides

**What is the maximum Landslide\* hazard rating identified on the study site? Very Low**

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

#### 8.1.3 Soluble Rocks

**What is the maximum Soluble Rocks\* hazard rating identified on the study site? Null - Negligible**

Soluble rocks are not present in the search area. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

#### 8.1.4 Compressible Ground

**What is the maximum Compressible Ground\* hazard rating identified on the study site? Negligible**

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

### 8.1.5 Collapsible Rocks

**What is the maximum Collapsible Rocks\* hazard rating identified on the study site?** **Very Low**

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

### 8.1.6 Running Sand

**What is the maximum Running Sand\* hazard rating identified on the study site?** **Negligible**

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

\* This indicates an automatically generated 50m buffer and site.

---

## 9. Mining

### 9.1 Coal Mining

**Are there any coal mining areas within 75m of the study site?**

**No**

Database searched and no data found.

---

### 9.2 Shallow Mining

**What is the subsidence hazard relating to shallow mining on-site\*?**

**Negligible**

\*Please note this data is searched with a 150m buffer.

---

### 9.3 Brine Affected Areas

**Are there any brine affected areas within 75m of the study site?**

**No**

Guidance: No Guidance Required.

---

## 10. Contacts

### EmapSite

Telephone: 0118 9736883  
sales@emapsite.com



### British Geological Survey (England & Wales)

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Keyworth, Nottingham NG12 5GG  
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enquiries@bgs.ac.uk  
Web: www.bgs.ac.uk  
BGS Geological Hazards Reports and general geological  
enquiries



### Environment Agency

National Customer Contact Centre  
PO Box 544  
Rotherham  
S60 1BY  
Tel: 08708 506 506  
Web: www.environment-agency.gov.uk  
Email: enquiries@environment-agency.gov.uk



### Health Protection Agency

Chilton, Didcot, Oxon, OX11 0RQ  
Tel: 01235 822622 www.hpa.org.uk/radiation  
Radon measures and general radon information and  
guidance



### The Coal Authority

200 Lichfield Lane, Mansfield, Notts NG18 4RG  
Tel: 0845 762 6848  
DX 716176 Mansfield 5  
Web: [www.groundstability.com](http://www.groundstability.com)



### Ordnance Survey

Romsey Road  
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### Local Authority

Authority: Camden London Borough Council  
Phone: 020 7278 4444  
Web: [www.camden.gov.uk](http://www.camden.gov.uk)  
Address: Camden Town Hall, Judd Street, Camden, London,  
WC1H 9JE

### Get Mapping PLC

Virginia Villas, High Street, Hartley Witney, Hampshire RG27  
8NW  
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#### Acknowledgements

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