



Flood Risk Assessment Report Template

27 Sep 2024 / Chris Lepski

Complete

Score	18 / 25 (72%)	Flagged items	0	Actions	0
--------------	---------------	----------------------	---	----------------	---

Client / Site

Location

83 Lower Mortlake Rd, Richmond
TW9 2LW, United Kingdom
(51.4657034, -0.2964561)

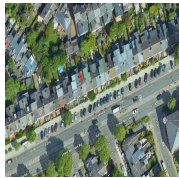


Photo 1



Photo 2

Conducted on

27.09.2024 17:54 CEST

Prepared by

Chris Lepski

Audit

18 / 25 (72%)

FLOOD RISK ASSESSMENT

General Information

What is the flood zone of the site being assessed?

Zone 1

At risk from flood event greater than the 1 in 1000 year event (greater than 0.1% annual probability of flooding each year) - Land that has a 'Low Probability' of fluvial or tidal flooding.

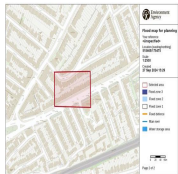


Photo 3

[flood-map-planning-2024-09-27T14_29_21.099Z.pdf](#)

Flood level

Is the site protected by flood defences?

Yes

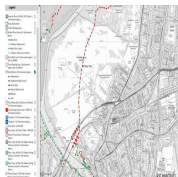


Photo 4

Fluvial

2 / 3 (66.67%)

Description

Fluvial Flood Risk - Fluvial flooding, also known as main river flooding, occurs when heavy or prolonged periods of rain causes a river to exceed its capacity. Excessive snow melt can cause fluvial flooding, as can high tides and storm surges for rivers with tidal influences. Floodplains and adjacent open spaces in the natural environment help manage and convey overbank flooding, mitigating the potential widespread impact of fluvial flooding.

The greatest risk to property and life from flooding within London Borough of Richmond Upon Thames is as a result of tidal activity within the River Thames. However, the Borough is currently protected from combined tidal and fluvial flooding by the River Thames Tidal Defences (TTD) up to the 1 in 1000 year event

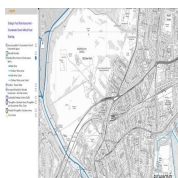


Photo 5

Risk Rating

Low

Coastal/Tidal

2 / 3 (66.67%)

Description

Sea tidal - this occurs when water levels from the sea overtop or breach flood defences. Within Richmond Borough, the River Thames is tidally influenced up to Teddington Weir. The Thames Tidal Defences however protect the borough from tidal flooding through a combination of raised defences and the Thames Barrier.

The site is elevated above the 200-year tidal floodplain.



Photo 6



Photo 7

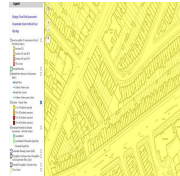


Photo 8

Risk Rating

Low

Canals

3 / 3 (100%)

Description

Artificial flooding can occur as a result of infrastructure failure or human intervention. Artificial flood sources include reservoirs, canals, water retention ponds, docks and other artificial structures however there are no canals around site.

Risk Rating

None

Groundwater

2 / 3 (66.67%)

Description

Groundwater – this occurs when water levels in the ground rise above surface levels which is most likely to occur in areas underlain by permeable rocks, and is likely to occur after seasonal periods of prolonged rainfall. This area is considered also to address groundwater flood low risk.

Historically, Richmond Borough has been affected by flooding from surface water, rivers, groundwater and sewers.

Flood risk from groundwater is less well understood and can be particularly difficult to predict due to the 'hidden' nature of the source of flooding and relatively longer period as the water table rises and emerges, often several days or weeks after heavy rainfall has fallen and river levels have dropped. Based on available data the areas of Richmond Park, land close to the River Thames, River Crane and Beverley Brook and areas of Twickenham are predicted to be at greatest risk, where permeable deposits (which usually consist of sediments such as gravel, sand, silt and clay) associated with the river valley are located.

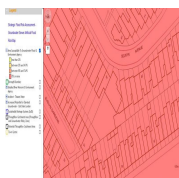


Photo 9

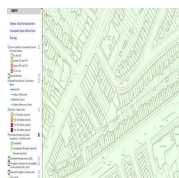


Photo 10

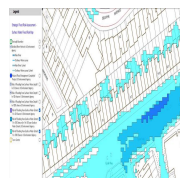


Photo 11



Photo 12



Photo 13

Risk Rating

Low

Reservoirs and Waterbodies

2 / 3 (66.67%)

Description

Sources of flooding includes also reservoirs this occurs when reservoirs which hold large volumes of water above ground water, overtop i.e. cannot contain the amount of water flowing into them, or when part of the reservoir fails resulting in a fast release of water. Within Richmond Borough there are artificial lakes located in Richmond Park and Bushby Park, as well as several reservoir storage areas in the south west of the Borough.



Photo 14

Risk Rating

Low

Pluvial runoff

2 / 3 (66.67%)

Description

The site lies outside critical drainage area due to the low risk of surface water flooding in the area.

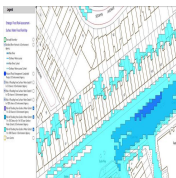


Photo 15



Photo 16



Photo 17

Risk Rating

Low

Sewers

2 / 3 (66.67%)

Description

Sewer - this occurs when sewers are overwhelmed by heavy rainfall, which can be the result of where the rainfall event exceeds the capacity of the sewer or drainage system, the system becomes blocked by debris or sediment, and / or the system surcharges due to high water levels in receiving watercourses.



Photo 18

Risk Rating

Low

Effect of Development on Wider Catchment

2 / 3 (66.67%)

Description

Risks from river flooding associated with the River Crane, Beverley Brook, Duke of Northumberland River, Whitton Brook, Portlane Brook and River Thames are relatively well understood and have been managed at a catchment level for many years by the Environment Agency.

Risk Rating

Low

COMPLETION

1 / 1 (100%)

Overall Risk Rating

Safe

Recommendations

In order to mitigate any residual risk from overland sources, it is recommended that where possible finished floor levels are raised/maintained at least 200mm above external levels. It is also recommended that external levels are arranged so as to divert flow away from the building entrance and reduce the risk posed to the lower basement level.

Full Name and Signature of Inspector

Chris Lepski
27.09.2024 18:22 CEST

Media summary



Photo 1



Photo 2

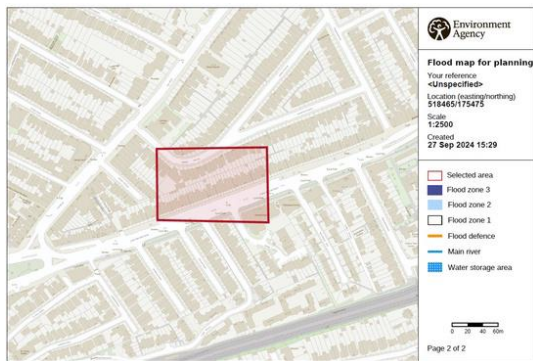


Photo 3



Photo 4

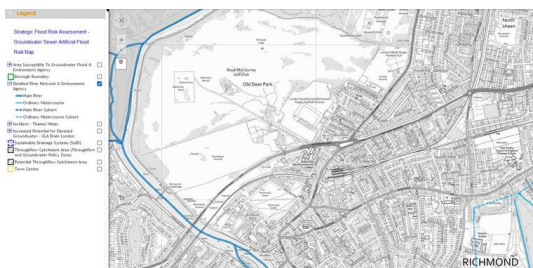


Photo 5

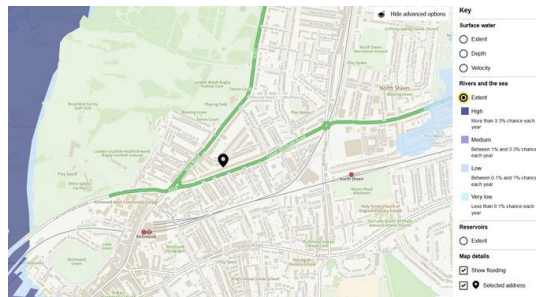


Photo 6

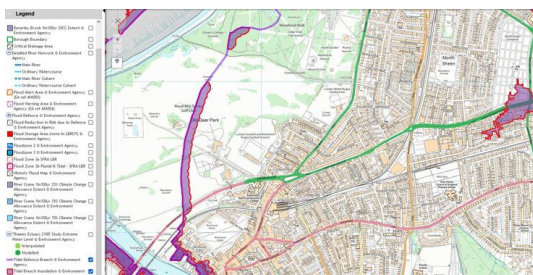


Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12

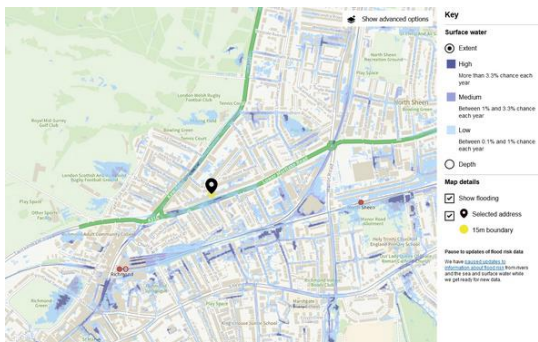


Photo 13

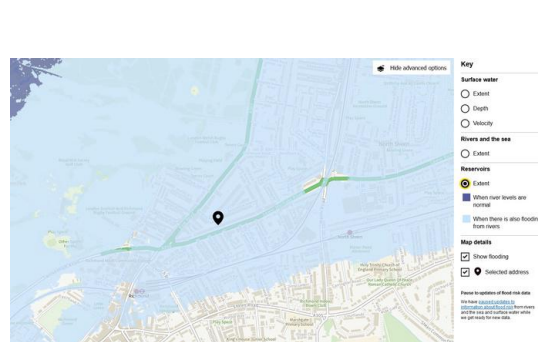


Photo 14



Photo 15



Photo 16



Photo 17

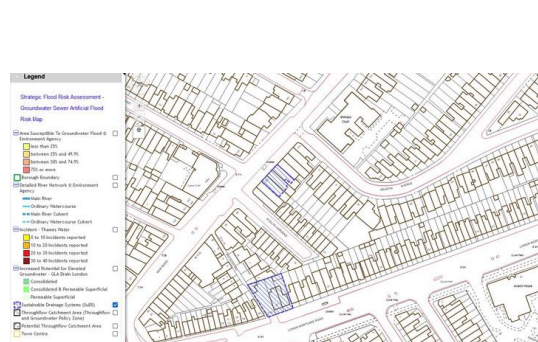


Photo 18

File summary

[flood-map-planning-2024-09-27T14_29_21.099Z.pdf](#)

Flood map for planning

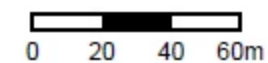
Your reference
<Unspecified>

Location (easting/northing)
518465/175475

Scale
1:2500

Created
27 Sep 2024 15:29

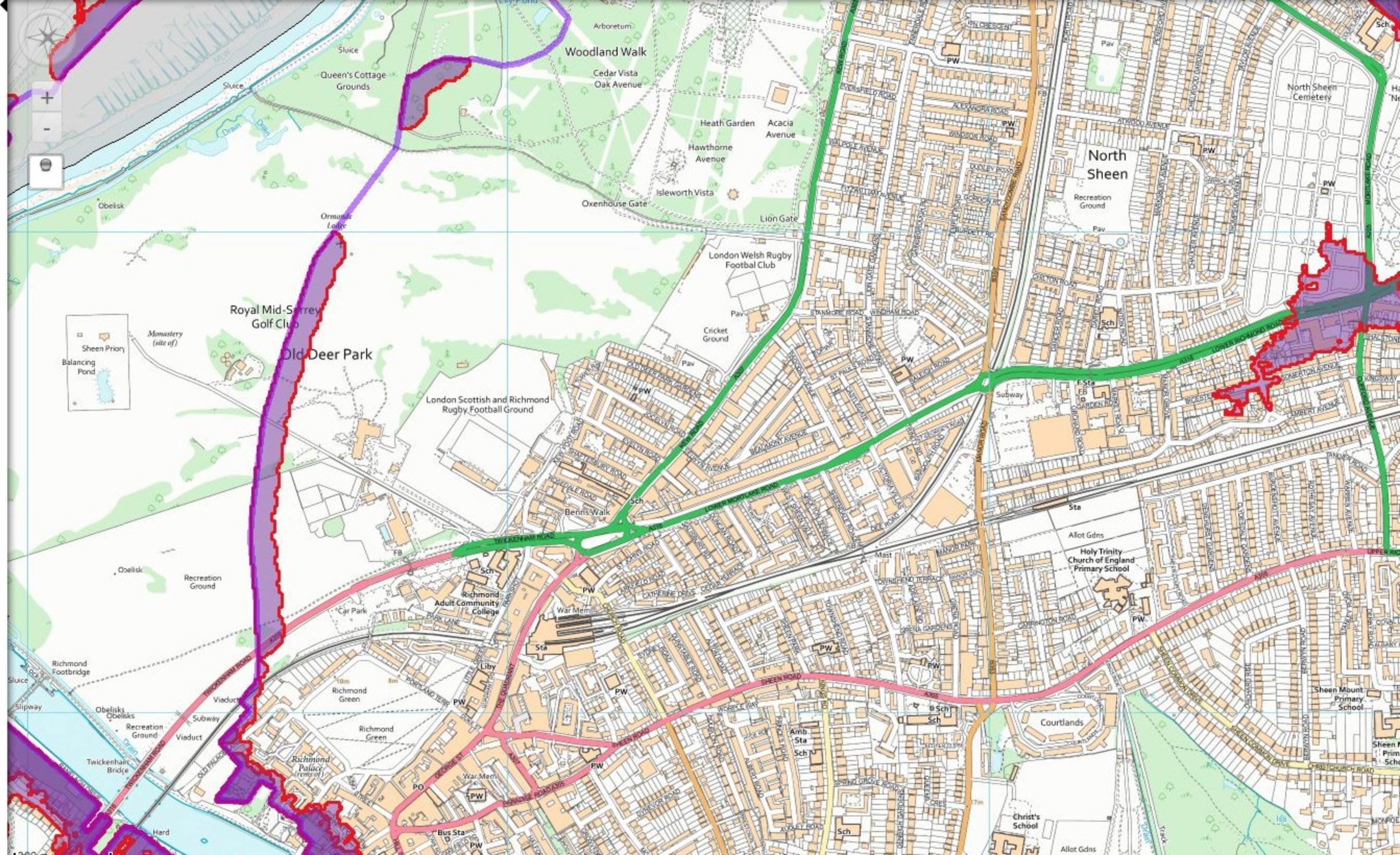
-  Selected area
-  Flood zone 3
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Water storage area

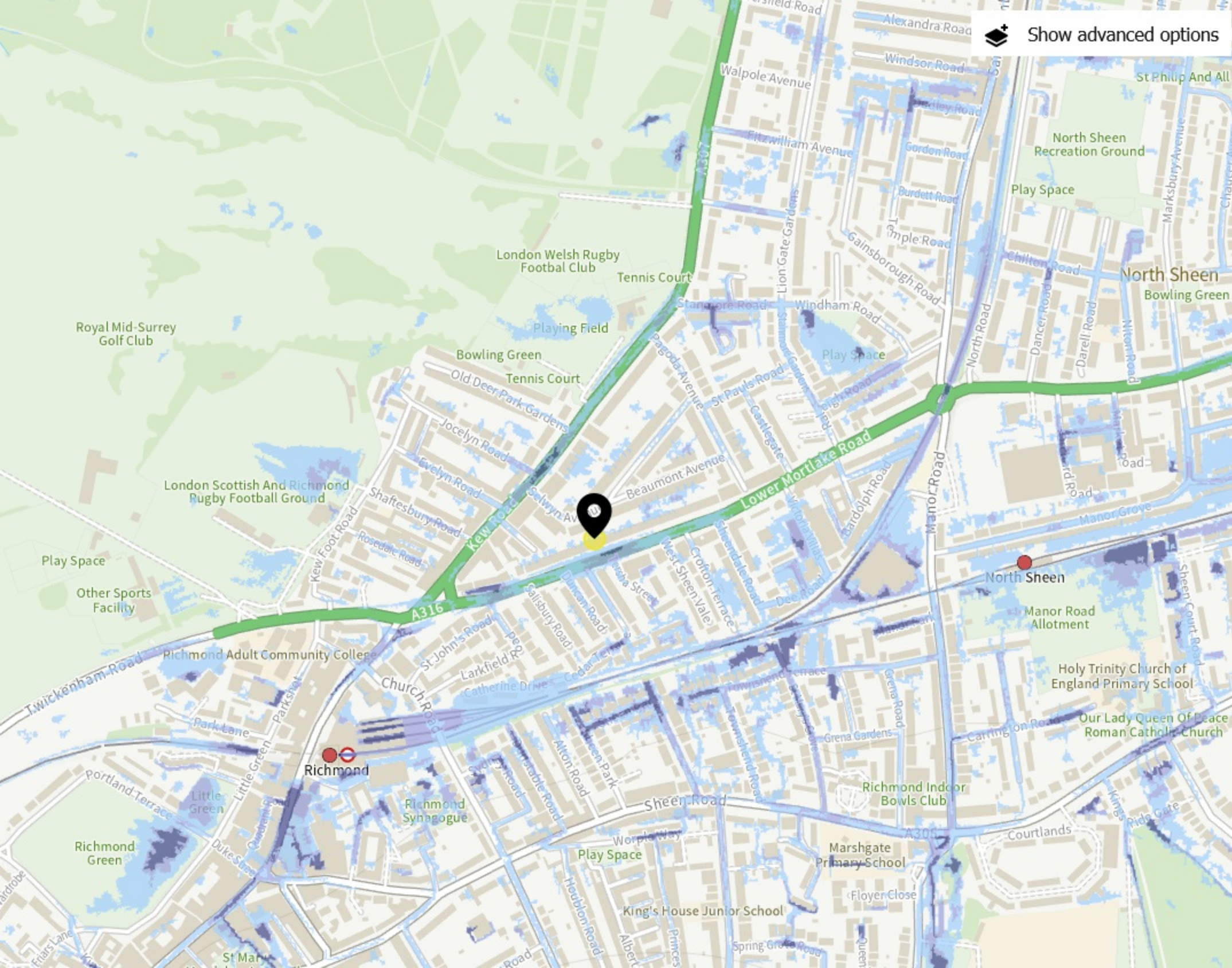




Legend

- Beverley Brook 1in100yr 20CC Extent © Environment Agency
- Borough Boundary
- Critical Drainage Area
- Detailed River Network © Environment Agency
 - Main River
 - Ordinary Watercourse
 - Main River Culvert
 - Ordinary Watercourse Culvert
- Flood Alert Area © Environment Agency (EA ref Afa055)
- Flood Warning Area © Environment Agency (EA ref Afa054)
- Flood Defence © Environment Agency
- Flood Reduction in Risk due to Defence © Environment Agency
- Flood Storage Area (none in LBRUT) © Environment Agency
- Floodzone 2 © Environment Agency.
- Floodzone 3 © Environment Agency.
- Flood Zone 3a SFRA LBR
- Flood Zone 3b Fluvial & Tidal - SFRA LBR
- Historic Flood Map © Environment Agency
- River Crane 1in100yr 25% Climate Change Allowance Extent © Environment Agency
- River Crane 1in100yr 35% Climate Change Allowance Extent © Environment Agency
- River Crane 1in100yr 70% Climate Change Allowance Extent © Environment Agency
- Thames Estuary 2100' Study Extreme Water Level © Environment Agency
- Interpolated
- Modelled
- Tidal Defence Breach © Environment Agency
- Tidal Breach Inundation © Environment Agency





Show advanced options

Key

Surface water

- Extent
- High
More than 3.3% chance each year
- Medium
Between 1% and 3.3% chance each year
- Low
Between 0.1% and 1% chance each year

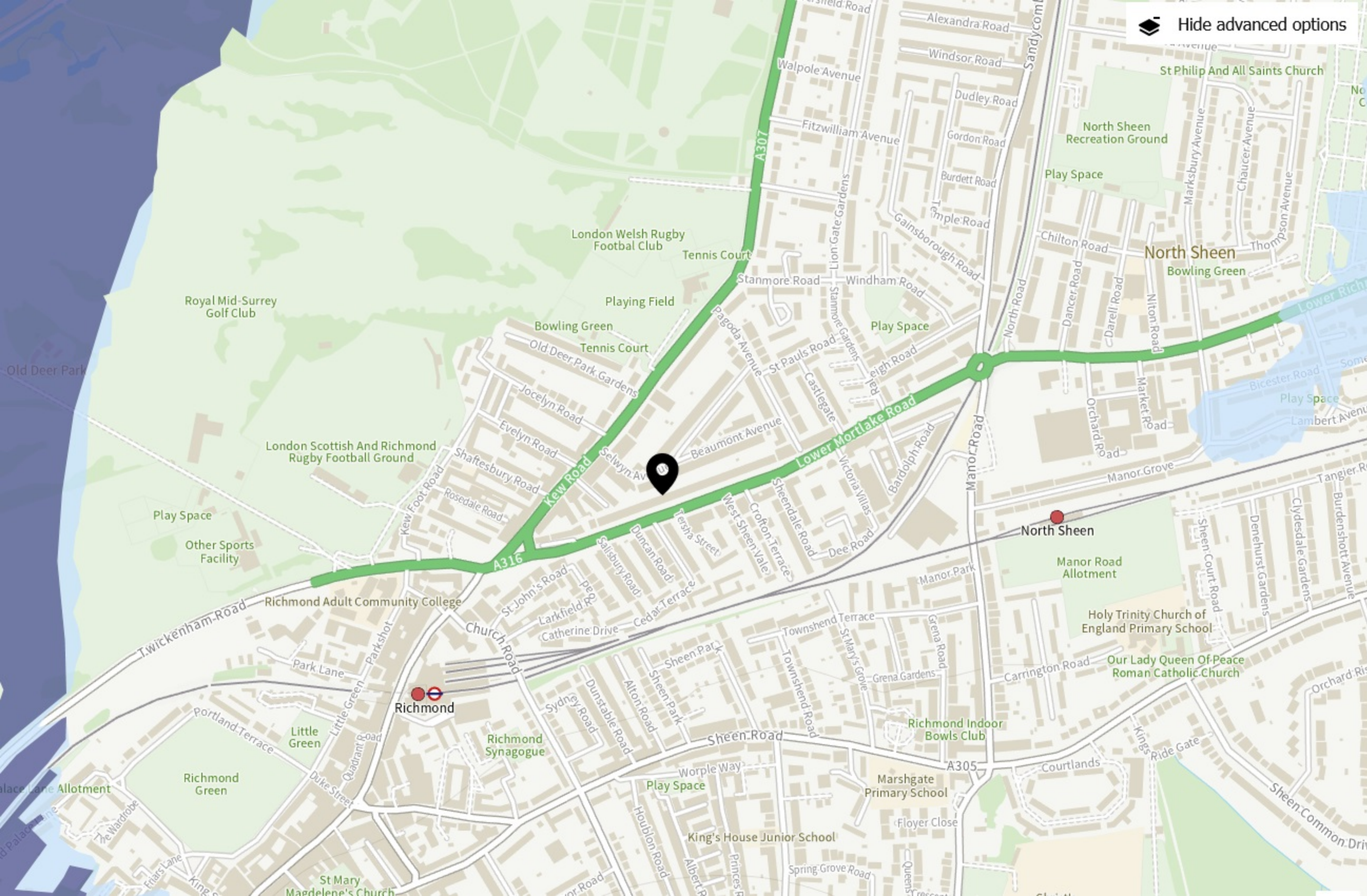
- Depth

Map details

- Show flooding
- Selected address
- 15m boundary

Pause to updates of flood risk data




We have [paused updates to information about flood risk](#) from rivers and the sea and surface water while we get ready for new data.








 Hide advanced options

Key

Surface water

-  Extent
-  Depth
-  Velocity


Rivers and the sea

-  Extent
-  High
More than 3.3% chance each year
-  Medium
Between 1% and 3.3% chance each year
-  Low
Between 0.1% and 1% chance each year
-  Very low
Less than 0.1% chance each year

Reservoirs

-  Extent

Map details

- Show flooding
-  Selected address

Legend

Strategic Flood Risk Assessment - Groundwater Sewer Artificial Flood Risk Map

- Area Susceptible To Groundwater Flood © Environment Agency
- Borough Boundary
- Detailed River Network © Environment Agency
 - Main River
 - Ordinary Watercourse
 - Main River Culvert
 - Ordinary Watercourse Culvert
- Incident - Thames Water
- Increased Potential for Elevated Groundwater - GLA Drain London
- Sustainable Drainage Systems (SuDS)
- Throughflow Catchment Area (Throughflow and Groundwater Policy Zone)
- Potential Throughflow Catchment Area
- Town Centre



Legend

Strategic Flood Risk Assessment - Surface Water Flood Risk Map

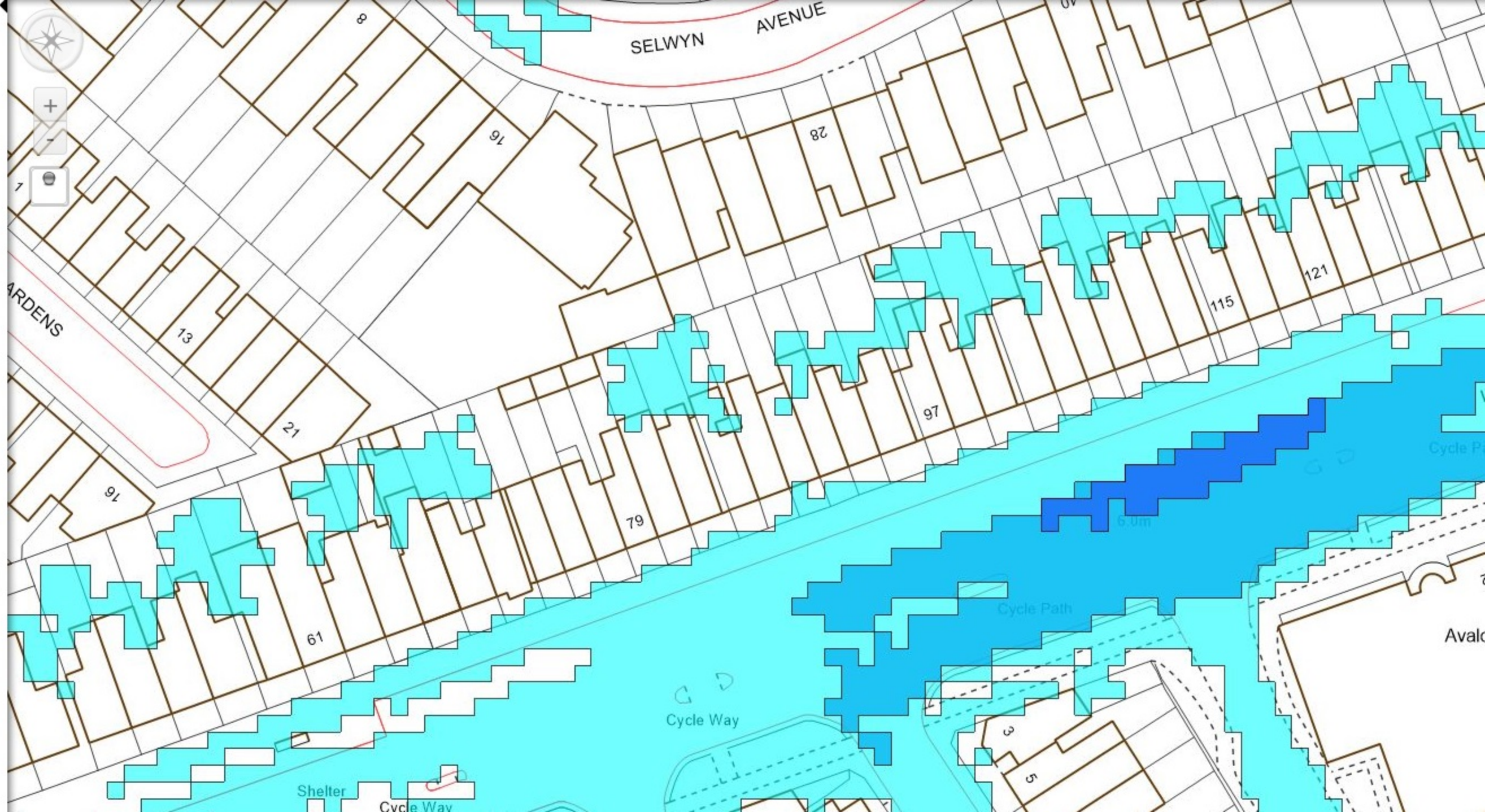
- Borough Boundary
- Detailed River Network © Environment Agency
 - Main River
 - Ordinary Watercourse
 - Main River Culvert
 - Ordinary Watercourse Culvert
- Natural Flood Management Completed Project © Environment Agency
- Risk of Flooding from Surface Water depth 1 in 30 chance © Environment Agency
- Risk of Flooding from Surface Water Depth 1 in 100 chance © Environment Agency
 - 0.00 - 0.15m
 - 0.15 - 0.30m
 - 0.30 - 0.60m
 - 0.60 - 0.90m
 - 0.90 - 1.20m
 - > 1.20m
- Risk of Flooding from Surface Water Depth 1 in 1000 chance © Environment Agency
- Risk of Flooding from Surface Water Extent 1 in 30 Chance © Environment Agency
- Risk of Flooding from Surface Water Extent 1 in 100 Chance (ie 1 in 100 year Surface Water Extent) © Environment Agency
- Risk of Flooding from Surface Water Extent 1 in 1000 Chance © Environment Agency
- Town Centre

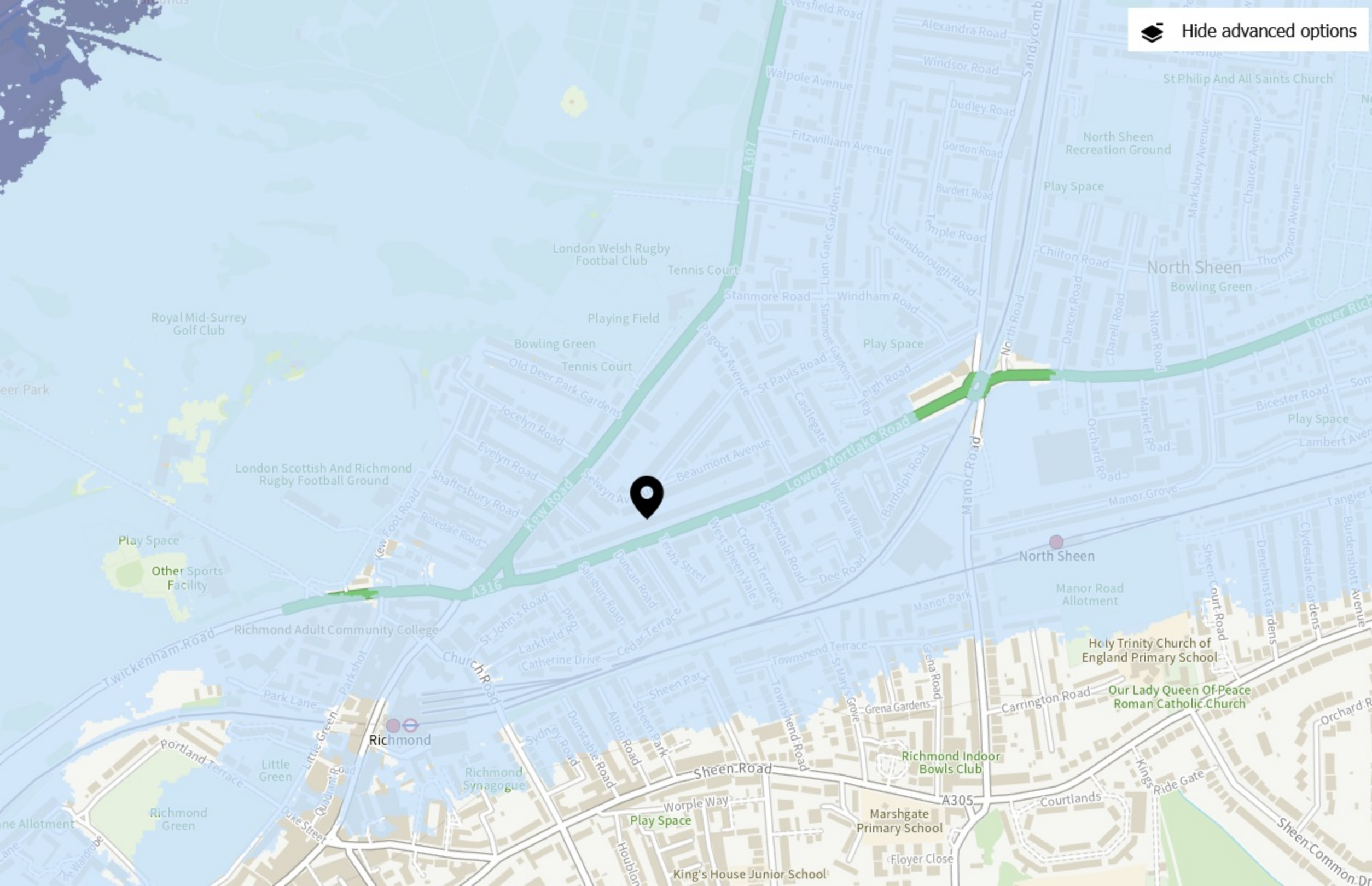


Legend

Strategic Flood Risk Assessment - Surface Water Flood Risk Map

- Borough Boundary
- Detailed River Network © Environment Agency
 - Main River
 - Ordinary Watercourse
 - Main River Culvert
 - Ordinary Watercourse Culvert
- Natural Flood Management Completed Project © Environment Agency
- Risk of Flooding from Surface Water depth 1 in 30 chance © Environment Agency
- Risk of Flooding from Surface Water Depth 1 in 100 chance © Environment Agency
- Risk of Flooding from Surface Water Depth 1 in 1000 chance © Environment Agency
- Risk of Flooding from Surface Water Extent 1 in 30 Chance © Environment Agency
- Risk of Flooding from Surface Water Extent 1 in 100 Chance (ie 1 in 100 year Surface Water Extent) © Environment Agency
- Risk of Flooding from Surface Water Extent 1 in 1000 Chance © Environment Agency
- Town Centre








 Hide advanced options

Key




Surface water

-  Extent
-  Depth
-  Velocity


Rivers and the sea

-  Extent

Reservoirs

-  Extent
-  When river levels are normal
-  When there is also flooding from rivers

Map details

- Show flooding
-  Selected address

Pause to updates of flood risk data

We have [paused updates to information about flood risk](#) from rivers and the sea and surface water while we get ready for new data.

Legend

Strategic Flood Risk Assessment - Groundwater Sewer Artificial Flood Risk Map

- Area Susceptible To Groundwater Flood © Environment Agency
 - less than 25%
 - between 25% and 49.9%
 - between 50% and 74.9%
 - 75% or more
- Borough Boundary
- Detailed River Network © Environment Agency
 - Main River
 - Ordinary Watercourse
 - Main River Culvert
 - Ordinary Watercourse Culvert
- Incident - Thames Water
 - 0 to 10 incidents reported
 - 10 to 20 incidents reported
 - 20 to 30 incidents reported
 - 30 to 40 incidents reported
- Increased Potential for Elevated Groundwater - GLA Drain London
 - Consolidated
 - Consolidated & Permeable Superficial
 - Permeable Superficial
- Sustainable Drainage Systems (SuDS)
- Throughflow Catchment Area (Throughflow and Groundwater Policy Zone)
- Potential Throughflow Catchment Area
- Town Centre



Legend

Strategic Flood Risk Assessment -
Groundwater Sewer Artificial Flood
Risk Map

- Area Susceptible To Groundwater Flood © Environment Agency
 - less than 25%
 - between 25% and 49.9%
 - between 50% and 74.9%
 - 75% or more
- Borough Boundary
- Detailed River Network © Environment Agency
 - Main River
 - Ordinary Watercourse
 - Main River Culvert
 - Ordinary Watercourse Culvert
- Incident - Thames Water
 - 0 to 10 incidents reported
 - 10 to 20 incidents reported
 - 20 to 30 incidents reported
 - 30 to 40 incidents reported
- Increased Potential for Elevated Groundwater - GLA Drain London
 - Consolidated
 - Consolidated & Permeable Superficial
 - Permeable Superficial
- Sustainable Drainage Systems (SuDS)
- Throughflow Catchment Area (Throughflow and Groundwater Policy Zone)
- Potential Throughflow Catchment Area
- Town Centre



Legend

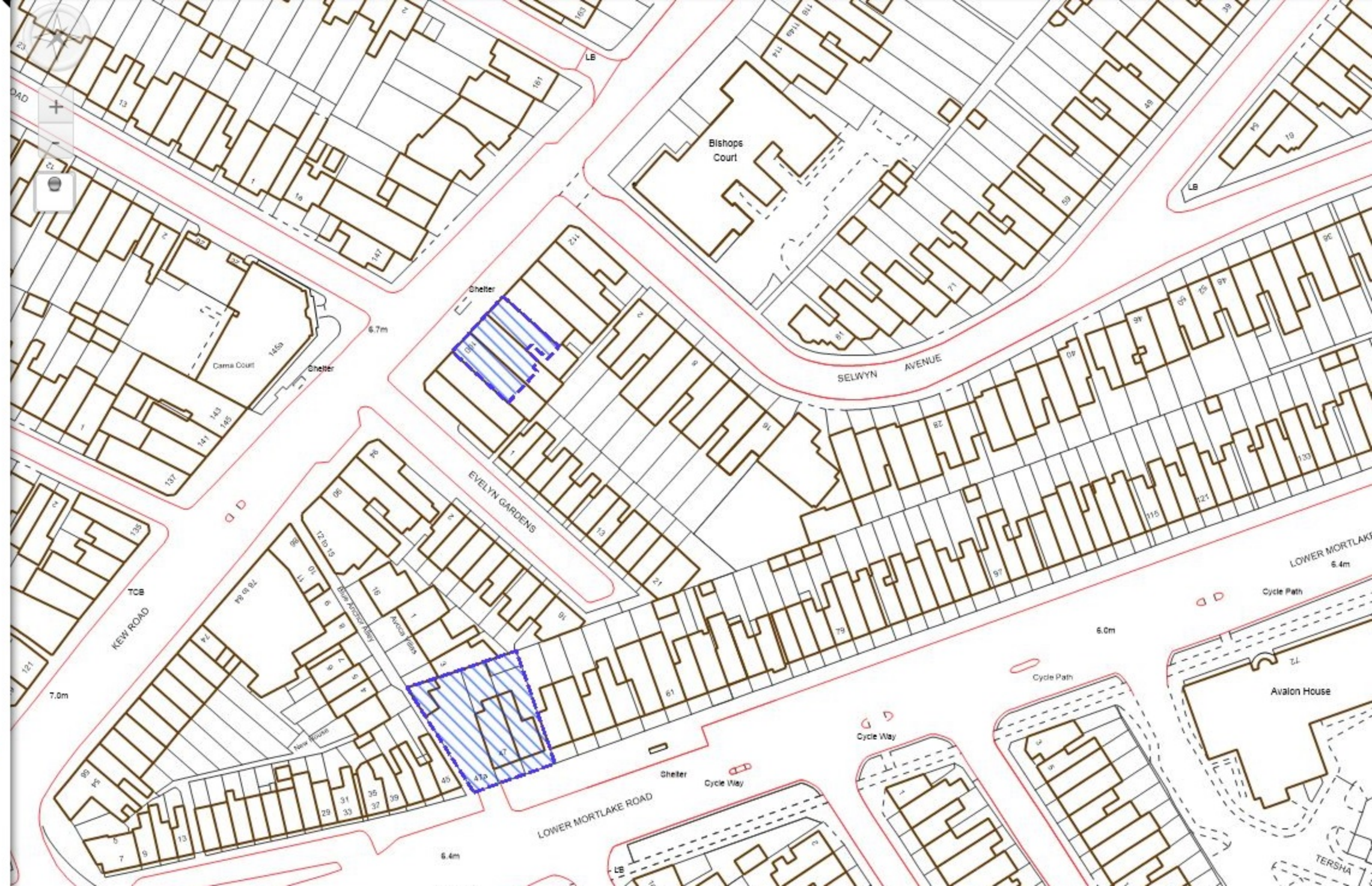
- Beverley Brook 1in100yr 20CC Extent © Environment Agency
- Borough Boundary
- Critical Drainage Area
- Detailed River Network © Environment Agency
 - Main River
 - Ordinary Watercourse
 - Main River Culvert
 - Ordinary Watercourse Culvert
- Flood Alert Area © Environment Agency (EA ref Afa055)
- Flood Warning Area © Environment Agency (EA ref Afa054)
- Flood Defence © Environment Agency
 - Embankment
 - Engineered High Ground
 - Flood Gate
 - Natural High Ground
 - Spillway
 - Wall
- Flood Reduction in Risk due to Defence © Environment Agency
- Flood Storage Area (none in LBRU) © Environment Agency
- Floodzone 2 © Environment Agency.
- Floodzone 3 © Environment Agency.
- Flood Zone 3a SFRA LBR
- Flood Zone 3b Fluvial & Tidal - SFRA LBR
- Historic Flood Map © Environment Agency
- River Crane 1in100yr 25% Climate Change Allowance Extent © Environment Agency
- River Crane 1in100yr 35% Climate Change Allowance Extent © Environment Agency
- River Crane 1in100yr 70% Climate Change Allowance Extent © Environment Agency
- Thames Estuary 2100' Study Extreme Water Level © Environment Agency



Legend

Strategic Flood Risk Assessment - Groundwater Sewer Artificial Flood Risk Map

- Area Susceptible To Groundwater Flood © Environment Agency
 - less than 25%
 - between 25% and 49.9%
 - between 50% and 74.9%
 - 75% or more
- Borough Boundary
- Detailed River Network © Environment Agency
 - Main River
 - Ordinary Watercourse
 - Main River Culvert
 - Ordinary Watercourse Culvert
- Incident - Thames Water
 - 0 to 10 incidents reported
 - 10 to 20 incidents reported
 - 20 to 30 incidents reported
 - 30 to 40 incidents reported
- Increased Potential for Elevated Groundwater - GLA Drain London
 - Consolidated
 - Consolidated & Permeable Superficial
 - Permeable Superficial
- Sustainable Drainage Systems (SuDS)
- Throughflow Catchment Area (Throughflow and Groundwater Policy Zone)
- Potential Throughflow Catchment Area
- Town Centre



Legend

Strategic Flood Risk Assessment -
Groundwater Sewer Artificial Flood
Risk Map

- Area Susceptible To Groundwater Flood © Environment Agency
 - less than 25%
 - between 25% and 49.9%
 - between 50% and 74.9%
 - 75% or more
- Borough Boundary
- Detailed River Network © Environment Agency
- Incident - Thames Water
- Increased Potential for Elevated Groundwater - GLA Drain London
- Sustainable Drainage Systems (SuDS)
- Throughflow Catchment Area (Throughflow and Groundwater Policy Zone)
- Potential Throughflow Catchment Area
- Town Centre

