

FLOOD RISK ASSESSMENT

6 CLEVELAND GARDENS, BARNES, LONDON SW13 0AG

PROPOSED BASEMENT

1. Introduction:

This Report accompanies a Full Planning Application to The London Borough of Richmond-upon-Thames for Planning Consent and Conservation Area Consent to construct a basement at the above mentioned property.

This Report will justify the proposed basement to 6 Cleveland Gardens to the criteria published by the Environment Agency.

2. Site Analysis:

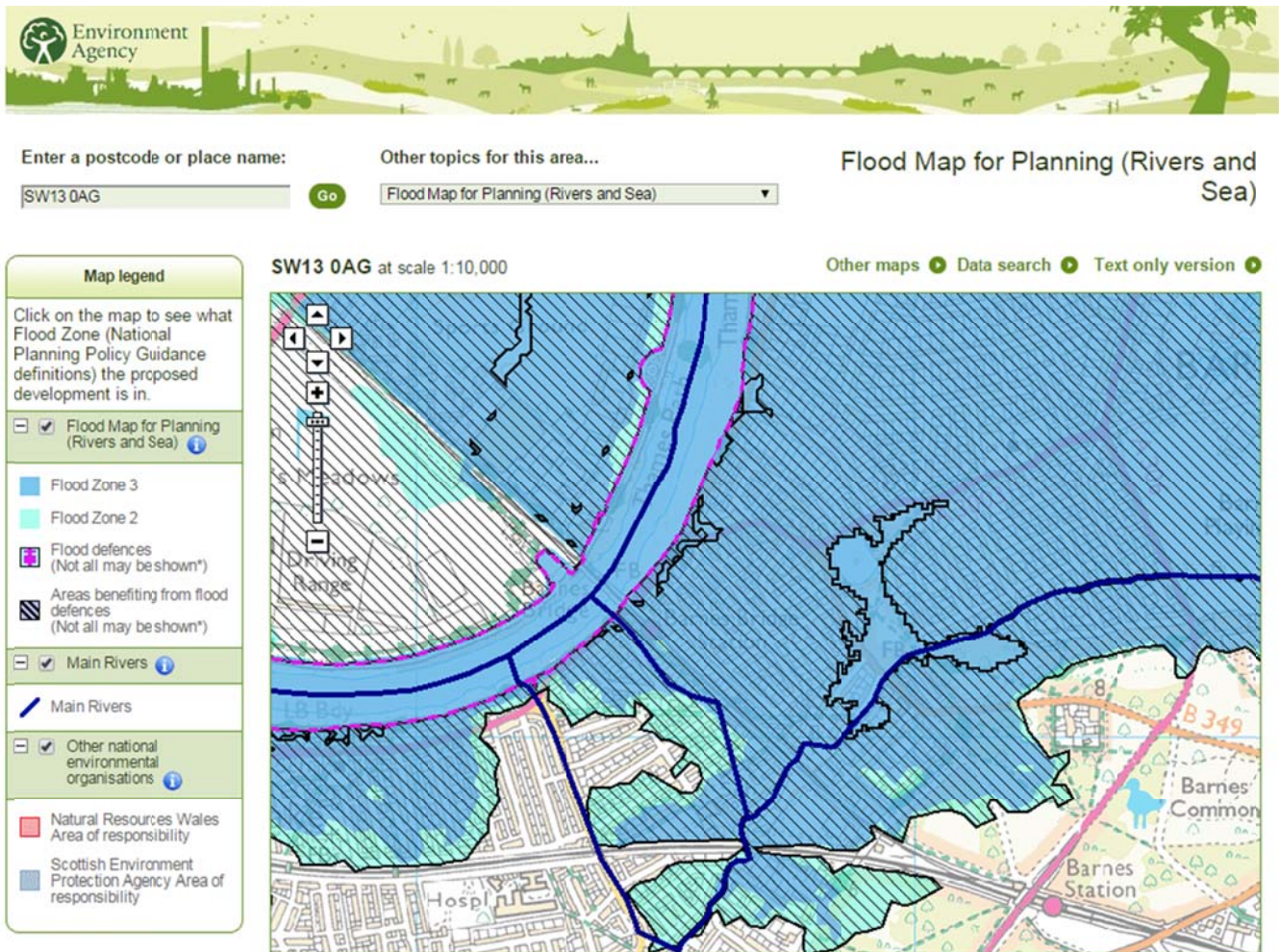
The Application site is located in an urban area within easy walking distance of Barnes Centre to the west of the River Thames.



The majority of the area of Barnes is within Flood Risk Zone 3 including the application site; this is presented in the map below. The existing building of 6 Cleveland Gardens is currently a 3 storey terraced dwelling.

The proposal consists of providing a whole footprint basement with lightwell to the side.

The River Thames is protected by extensive flood protection for the entire length and water levels are strictly controlled in the event of flooding, by use of flood plains outside the London area.



3. Environment Agency Guidance:

The Environment Agency's Guidance for a small domestic extension require that the floor level in the proposed development will be set no lower than the existing levels and that flood proofing of the proposed development is considered and incorporated where appropriate.

Alternatively, floor levels within the extension be set 300mm above known or modelled 1% (1 in 100 chance each year) river flood levels.

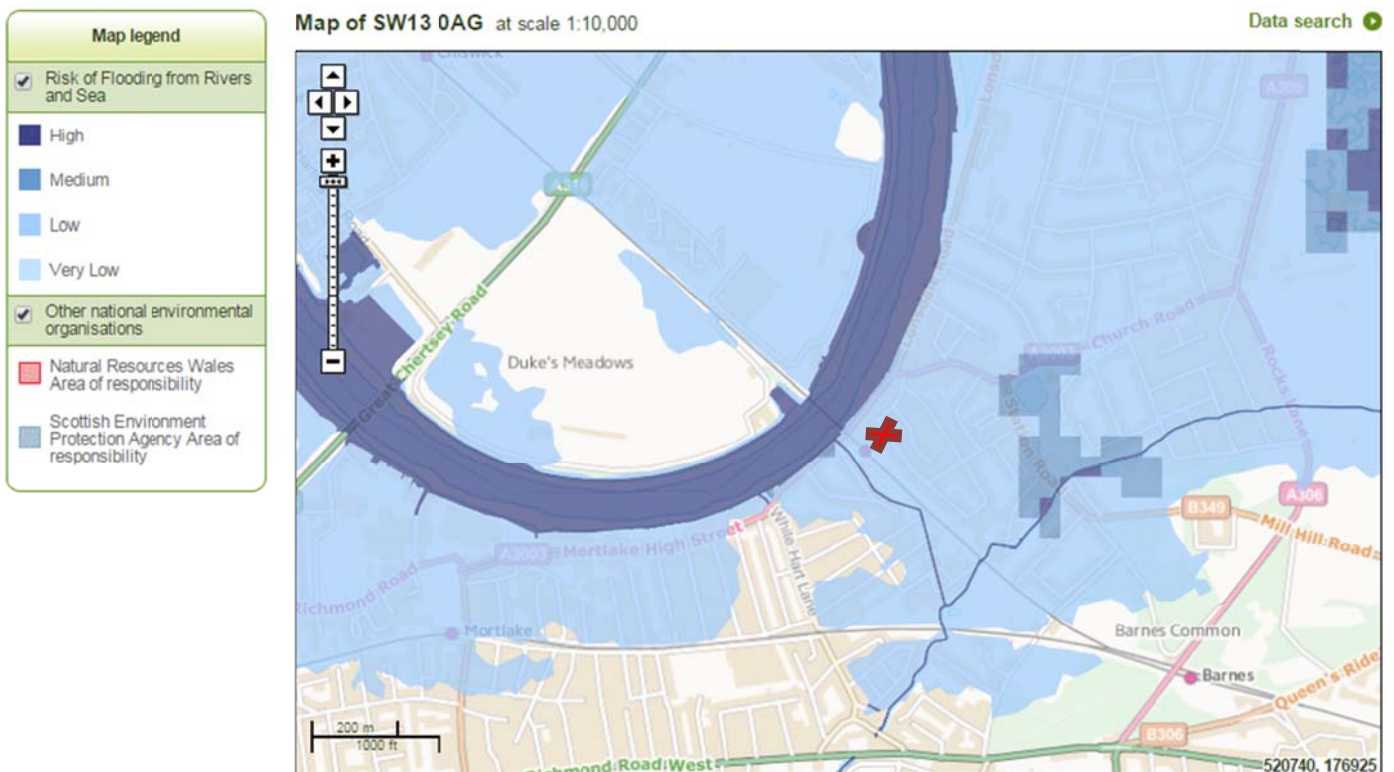
The Environment Agency quotes a 1 in 100 year flood level (projected to the year 2015) for this area is 4.85 above ordnance datum. This risk is considered low as shown in the map below.

Risk of Flooding from Rivers and Sea

River flooding happens when a river cannot cope with the amount of water draining into it from the surrounding land. Sea flooding happens when there are high tides and stormy conditions.

The shading on the map shows the risk of flooding from rivers and the sea in this particular area.

Click on the map for a more detailed explanation.



4. Flood Risk Assessment:

The proposed basement construction will incorporate and be protected by a cavity drain membrane system to discharge surface water interlinked with a sump and pump fitted with alarms to alert occupants in the event of flooding.

Materials and construction within the basement will be selected so as not to be permanently damaged by water and will facilitate rapid drying out of the building in the event of a flood occurrence. Separately controllable heating and electrical systems will be inbuilt with in the basement area so as to be isolated in a flood event.

The basement rooms are designed to not be inhabited for long periods of time with alternative means of escape by virtue of additional external steps. All rooms are interlinked so as to give alternative means of escape, this, together with the alarmed sump is considered adequate protection to alert occupants in the event of flooding.

5. Conclusion:

- The basement proposals have rising water level alarm and prior notification of a likely event will alert and provide a high level of protection for the occupants of the property.
- The construction materials and systems used in the basement will resist permanent water damage and will aid water removal and ease of drying out.
- The floor levels, alarm systems and flood proofing provision will meet the minimum standards of Flood Risk Assessment provisions of the Environment Agency.