

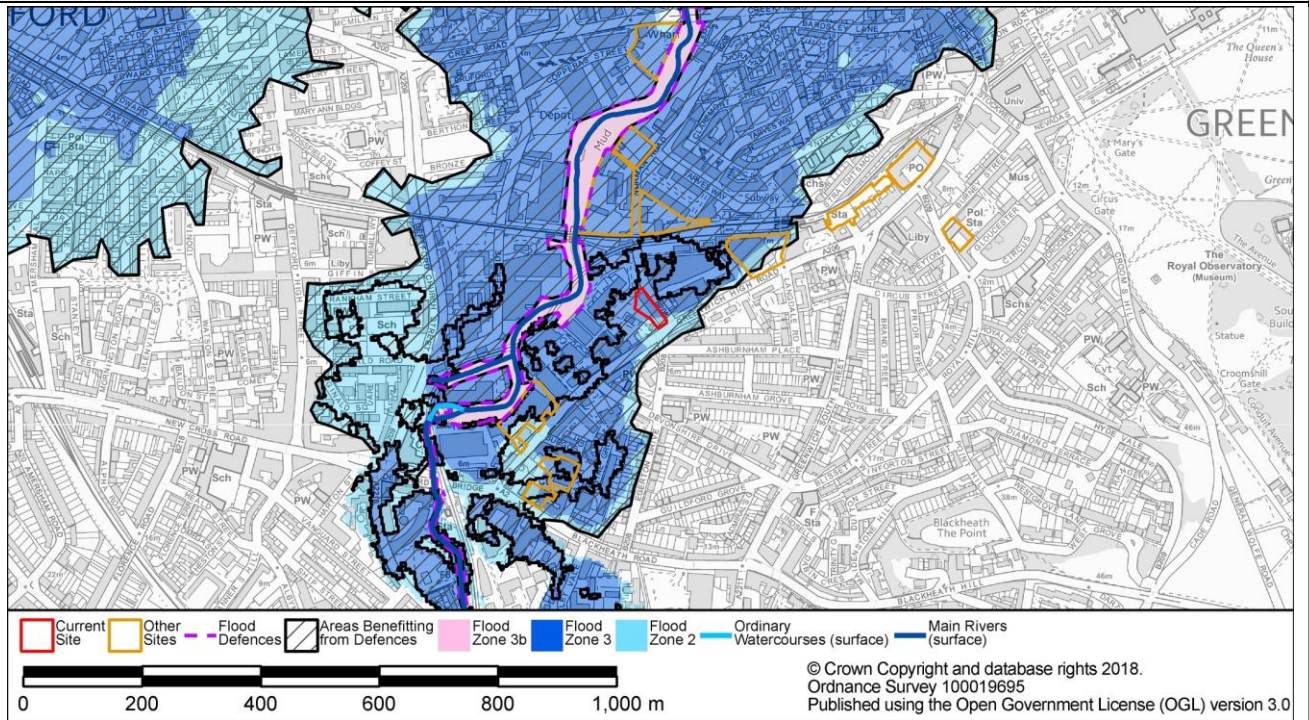
**Site Name: 11014 Norman Road, Greenwich**

<b>Site ID:</b>	SA34	<b>Site Address:</b>	Greenwich	<b>Area (ha):</b>	0.16
<b>Current Use:</b>	B1(a) and A2	<b>Proposed Use:</b>	Residential	<b>Vulnerability Classification:</b>	More Vulnerable

**Tidal Source:**

<b>Flood Zone 1 (&lt;0.1% AEP):</b>	<b>Flood Zone 2 (0.1% AEP):</b>	<b>Flood Zone 3 (1% AEP):</b>	<b>Flood Zone 3b (5%AEP):</b>	<b>Area Benefiting from Defences:</b>
0%	100%	81%	0%	100%

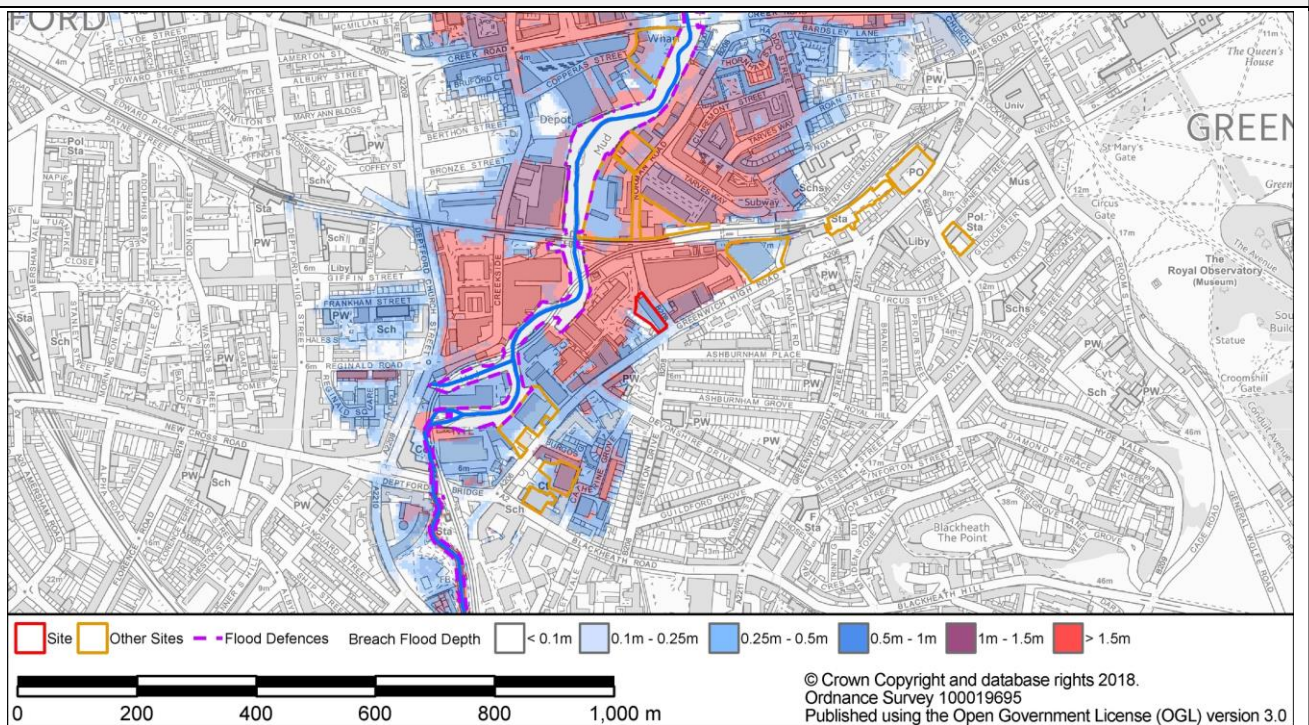
**Flood Zones and Flood Defences**



**Figure A - Flood Zones**

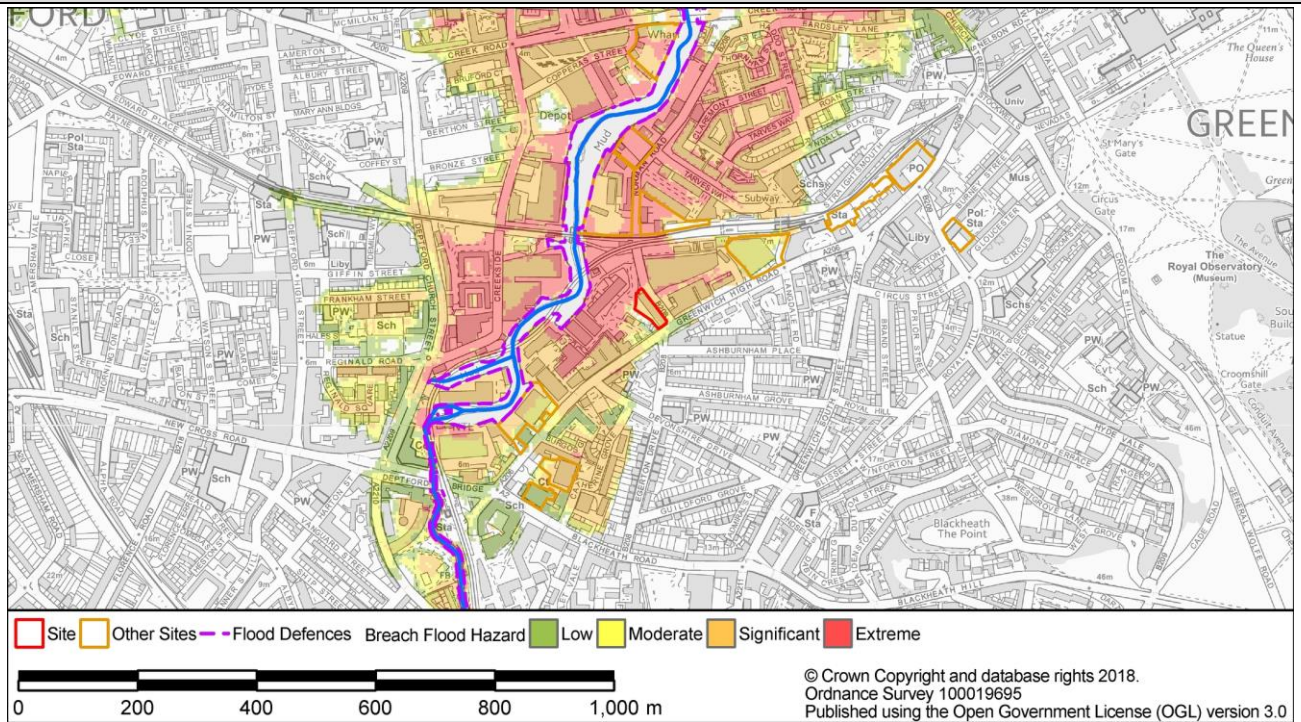
<b>Flood Defence Source:</b>	tidal	<b>Upstream of Thames Barrier?</b>	Yes
<b>Flood Defence Type:</b>	wall	<b>Standard of Protection:</b>	1000
<b>Flood Warning Area</b>	Tidal Thames from Woolwich Arsenal to Deptford Creek (100% Overlap)	<b>Emergency Rest Centre</b>	Greenwich West Community and Arts Centre

**Residual Tidal Flood Risk**



**Figure B - Maximum Flood Depth (Upriver Breach Assessment, MLWL 2100)**

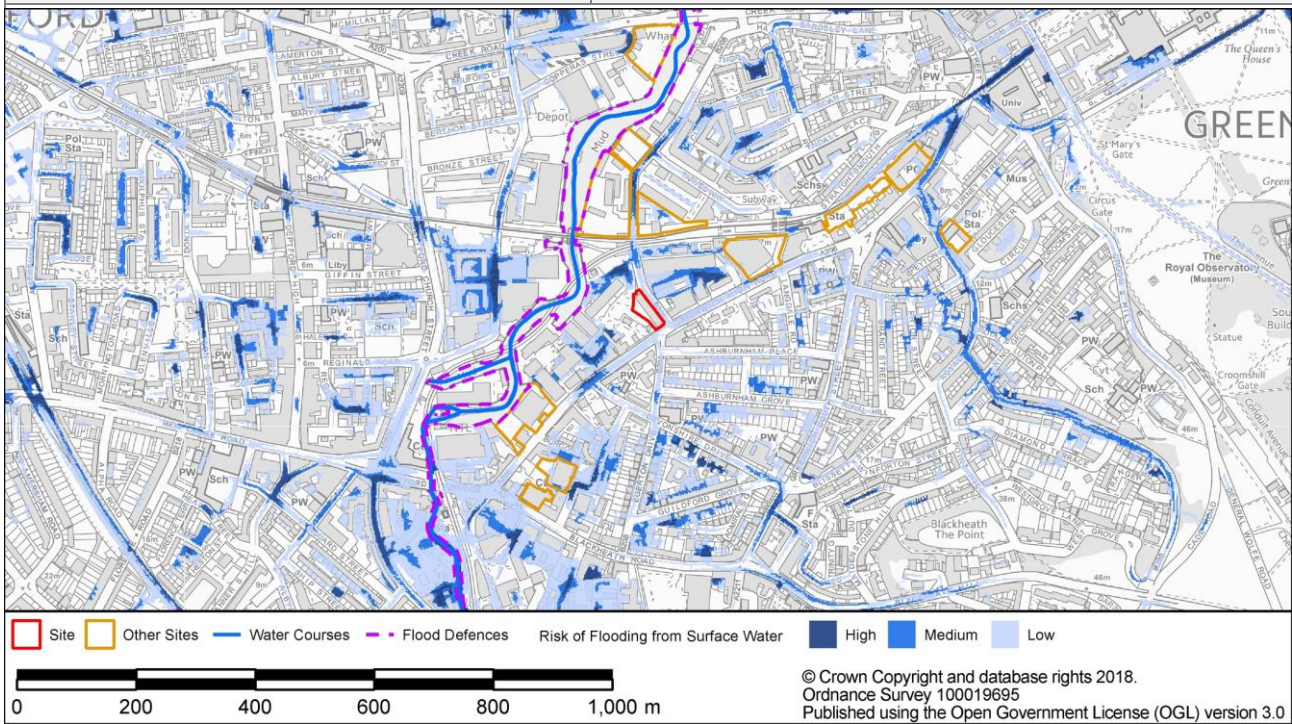
**Site Name: 11014 Norman Road, Greenwich**



**Figure C - Maximum Flood Hazard (Upriver Breach Assessment, MLWL 2100)**

**Surface Water Source**

**Risk of Flooding from Surface Water (RoFSW)** Very Low



**Figure D Risk of Flooding from Surface Water (RoFSW)**

**Critical Drainage Area** N/A

**Groundwater Source**

<b>Bedrock Geology</b>	Thanet Sand Formation	<b>Superficial Geology</b>	Alluvium - Clay, Silty, Peaty, Sandy, Kempton Park Gravel Formation
<b>Bedrock Aquifer Designation</b>	Secondary A (100% Overlap)	<b>Superficial Aquifer Designation</b>	Secondary A (99% Overlap), Secondary (undifferentiated) (1% Overlap)

**Potential Groundwater Flooding Zone** Zone A

**Other Sources**

**Sewer Flooding (within 4 digit postcode)** Internal Flood Incidents: 4 External Flood Incidents: 0

**Artificial sources**

## Site Name: 11014 Norman Road, Greenwich

### Site Specific Recommendations

The site is predominantly located within Flood Zone 3. The other part of the site is located within Flood Zone 2. The site is located in an area that benefits from the Thames Barrier defences and is at residual risk of tidal flooding. More Vulnerable uses must be located on the first floor or above, with Less Vulnerable uses at ground level. Basements are not permitted on the site. The ROFSW map shows that site is not at risk from surface water flooding.

Finished floor levels should be set at whichever level is higher: 300mm above the general ground level of the site or 600mm above the estimated sea level for a 1 in 200 year (0.5%AEP) event (including climate change). A number of flood resistance and resilience measures can be implemented into new developments to mitigate potential flooding. Guidance on resilience measures can be found in the document 'Improving the Flood Performance of New Buildings, Flood Resilient Construction' published by The Department for Communities and Local Government (CLG).

Careful consideration should be given to the use of fences and landscaping walls so as to prevent causing obstruction to flow routes. Unobstructed safe access routes to and from the development should be provided. These should provide access to higher ground that is not at risk from tidal flooding. Safe egress points would be most appropriately located to the east of the site at Greenwich High Road. The local area is covered by the 'Tidal Thames from Woolwich Arsenal to Deptford Creek' Environment Agency Flood Warning Area. A Flood Warning and Evacuation Plan (FWEP) must be prepared for the site, detailing how flood warning will be provided as well as how the safety of occupants and access to/from the development will be ensured. Further details of what should be included can be found in the Developer Guidance.

Reference to the SWMP Appendix D Figure D6 identifies that (prior to the completion of a site investigation to determine precise local conditions) infiltration of surface water into the ground is uncertain for the site. Site investigations will be required prior to the development of a Drainage Strategy for the site. Development should utilise sustainable urban drainage systems (SUDS) unless there are practical reasons for not doing so. Where an increased risk of surface water flooding exists to surrounding sites, developers need to provide a Drainage Strategy to demonstrate how they intend to address this, by what methods, over what timeframe and how maintenance of such works would be funded over its lifetime. This should include a consideration of SuDS in line with the London Plan 5.13 and Local Plan Policies. Surface water run-off should be managed in line with Royal Greenwich's surface water management requirements, as set out in Chapter 4 of the Developer Guidance.

### Summary

The site is predominantly within Flood Zone 3, defended by the Thames tidal defence, and has a residual risk of tidal flooding. More Vulnerable uses must be located on the first floor or above, with Less Vulnerable uses at ground level. Tidal flood risk mitigation measures should be implemented into the site design to manage flood risk. It is recommended that effective surface water management measures are implemented, including careful site and building layout and the incorporation of SuDS, in order to reduce flooding both on the site and routing of flood water to other areas. Due to the extent of flood risk on the site, a flood warning and evacuation plan should be implemented to ensure access to and from the site. On this basis, it is likely that this site could pass the Exception Test.