

Managing Flood Risk in Euston – Sequential Test of the Site Allocations in the Euston Area Plan Update

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Introduction

Local Planning Authorities are required to undertake a Strategic Flood Risk Assessment to assess the risk to an area from flooding from all sources, now and in the future, taking account of the impacts of climate change, and to assess the cumulative impact that land use changes and development in the area will have on flood risk.

In plan-making, Local Planning Authorities are also required to take a sequential approach to the selection of site allocations, to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk. This means avoiding, so far as possible, development in current and future medium and high flood risk areas considering all sources of flooding including areas at risk of surface water flooding.

To inform the development of the new Local Plan the Council has undertaken a Level 1 Strategic Flood Risk Assessment ([Level 1 Strategic Flood Risk Assessment \(camden.gov.uk\)](https://camden.gov.uk)).

This report uses the findings of the Level 1 Strategic Flood Risk Assessment for Camden and sets out the results of the sequential test of the proposed site allocations in the Updated Euston Area Plan. Given that Camden is in Flood Zone 1, the exception test is not required (see Table 3 (Flood Risk Vulnerability and Flood Zone 'Incompatibility') of the National Planning Practice Guidance).

National Policy Context

The National Planning Policy Framework (NPPF) requires plans to take a sequential, risk-based approach to the location of development, taking into account all sources of flood risk and the current and future impacts of climate change.

Paragraph 174 of the NPPF states that “The aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding. The strategic flood risk assessment will provide the basis for applying this test.”

Appendix 3 of the NPPF also sets out the Flood Risk Vulnerability Classification for different types of developments.

The Planning Practice Guidance (PPG) provides guidance on how local authorities should take into account flood risk when preparing plans and sets out how the sequential test should be applied for plan preparation (see Diagram 2).

The PPG advises that the Sequential Test needs to be applied to the whole local planning authority area to increase the possibilities of accommodating development, which is not exposed to flood risk, both now and in the future.

In applying the sequential test the PPG states that “where it is not possible to locate development in low-risk areas, the Sequential Test should go on to compare reasonably available sites:

- Within medium risk areas; and
- Then, only where there are no reasonably available sites in low and medium risk areas, within high-risk areas”.

([Flood risk and coastal change - GOV.UK](https://www.gov.uk) Paragraph 024 Ref ID: 7-024-20-20220825, Rev date 25/08/2022)

The guidance in the NPPF and the PPG has been used to inform the approach we have taken to the sequential test of the site allocations, set out below.

Local Policy Context

Camden is classified as being in Flood Zone 1 (areas with a low probability of river or sea flooding), as there are no main rivers within the borough. All main rivers historically located within Camden are now incorporated into the Thames Water sewer network. These are referred to as 'lost' or historic rivers and include the River Fleet, River Westbourne and River Tyburn.

Flooding from surface water and sewer surcharge pose the greatest risk to flooding in the borough, and the risk is interconnected due to the prevalence of the combined sewer system. Camden experienced significant flooding in 1975, 2002, and 2021, and the probability of such events recurring is likely to increase as a result of climate change. Camden also experiences some flooding from groundwater sources particularly in areas to the north and the south of the borough.

The Council are in the process of preparing a new Local Plan for Camden and an Updated Euston Area Plan. The Local Plan sets out the Council's vision for future development in Camden over the next 15 years and includes the planning policies and site allocations to help achieve this, and the Euston Area Plan provides more detailed policies and site allocation policies specifically for the Euston Area.

To inform the preparation of the new Local Plan and the Updated Euston Area Plan the Council has updated the Strategic Flood Risk Assessment (SFRA) for the borough. This provides a clear picture of the potential risks associated with flooding in Camden and outlines the requirements with regard to ensuring that these risks are managed in a sustainable way into the future.

The Council is a Lead Local Flood Authority, which means it has responsibility for managing flood risk from surface water and groundwater in the borough. The new Local Plan sets out the Council's proposed approach to managing flood risk in Camden to ensure that development in Camden does not increase flood risk and instead reduces the risk of flooding where possible (Policy CC10 Flood Risk and Policy CC11 Sustainable Drainage).

Policy CC10 Flood Risk sets out where a Flood Risk Assessment will be required and provides guidance on what developers should consider as part of a Flood Risk Assessment for a site. For sites identified as being at risk from flooding, the Council will expect the Flood Risk Assessment to demonstrate that:

- the most vulnerable uses are located in areas at lowest risk of flooding within the site;
- the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;
- the development incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;
- any residual risk can be safely managed; and
- safe access and escape routes are included where appropriate, as part of an agreed emergency plan.

In addition to this, where proposed site allocations are identified as being at risk of flooding, criteria have been included in the relevant site allocation policies requiring a Flood Risk Assessment to be carried out and submitted as part of the planning application process.

The approach to managing flood risk set out in the Proposed Submission Local Plan has been informed by engagement with stakeholders, including the Environment Agency. Comments made as part of the consultation on the draft Local Plan have been considered when updating and finalising the submission stage Local Plan and the updated Euston Area Plan.

Further to this, Sustainability Appraisals (SA's) have also been undertaken of both the Local Plan and the Updated Euston Area Plan. The SA's focus on the likely environmental effects of the Local Plan and Updated Euston Area Plan whilst also considering a range of measures extending to social and economic impacts. As part of the consideration of the environmental impacts of the Plans the flood risk associated with each of the proposed site allocations was identified. The SA's identified no fundamental constraints at individual site level that would prevent sites from coming forward. The SA's concluded that on all sites impacted by flood risk there was considered to be scope to avoid or significantly mitigate the impact through the policies in the Local Plan and Updated Euston Area Plan.

Approach to the Sequential Test

The Local Plan Proposed Submission Draft includes 13 site allocations. The sites have all been subject to the sequential test, the results of which are presented below.

To inform the application of the sequential test, the 13 sites have been subject to further investigation to establish:

- Presence of a historic watercourse;
- Flood history;
- Percentage of the site at risk of flooding from surface water; and
- Susceptibility to groundwater flooding.

This process involved reviewing the 2025 Strategic Flood Risk Assessment and the EAs 'Risk of flooding from surface water map' [See flood risk on a map - Check your long term flood risk - GOV.UK](#). The EA's mapping shows three modelled scenarios: low, medium and high, and where an area is not shown to flood from surface water, this is classified as very low risk (as described below):

- 'Very low' risk means that each year this area has less than 0.1% chance of flooding;
- 'Low' risk means that each year this area has between 0.1% and 1% chance of flooding;
- 'Medium' risk means that each year this area has between 1% and 3.3% chance of flooding; and
- 'High' risk means that each year this area has greater than 3.3% chance of flooding.

The percentage of the site at risk of flooding was then estimated manually and recorded in the table of results.

Following this, the sequential test was applied to the 13 site allocations. The sequential test was applied at a Euston Area level. As part of the assessment of sites the following factors were considered:

- Whether the development is in Flood Zone 1;
- Surface water flood risk;
- NPPG vulnerability of existing and proposed land use; and
- Whether reasonable alternative sites are available.

The results of this assessment were then used to determine whether or not a site passed the sequential test. Given that Camden is in Flood Zone 1, the subsequent application of the exception test is not required (see Table 3 (Flood Risk Vulnerability and Flood Zone 'Incompatibility') of the National Planning Practice Guidance).

Application of the Sequential Test

This section sets out how the sequential test has been applied as part of the preparation of the Camden Local Plan Proposed Submission Draft.

Sites with a low to medium chance of surface water flooding

Of the 13 sites assessed, 8 have been identified with a low to medium chance of surface water flooding, where 85% of the site or more is identified as being at either very low or low risk of surface water flooding, and under 10% of the site is identified as being at high risk of surface water flooding. These sites are considered to pass the requirements of the Sequential Test, given the location of the sites and the fact that no sequentially preferable sites are available that could deliver the levels of development identified, due to the limited availability of land in Camden. Furthermore it is considered that any flood risk can be mitigated through a Flood Risk Assessment as part of the planning application process. Given all the sites are in Flood Zone 1, the exceptions test doesn't apply.

Site Ref	Site Name	Site Area (Ha)	Site Capacity (homes / student housing)	Proposed Uses	NPPG vulnerability of proposed land use	% of the site at risk of surface water flooding				Flood risk commentary	Sequential test passed
						Very Low	Low	Med- ium	High		
EA2	Royal Mail, 1 Barnby Street	0.032	140 homes	Mixed-use development: permanent self-contained homes and employment.	More vulnerable (housing) / Less vulnerable (commercial)	90	7	1	2	Previously developed site. 6 to 20 sewer flooding incidents in this area between 2013-2023. The majority of the site is identified as being at either very low or low risk of surface water flooding, with 3% of the site identified at medium/high risk of surface water flooding.	Yes, site is located in flood zone 1 and the level of flood risk vulnerability is considered compatible with the flood zone. Furthermore, it is considered that the flood risk identified can be mitigated through a Flood Risk Assessment.

Site Ref	Site Name	Site Area (Ha)	Site Capacity (homes / student housing)	Proposed Uses	NPPG vulnerability of proposed land use	% of the site at risk of surface water flooding				Flood risk commentary	Sequential test passed
						Very Low	Low	Medium	High		
EA4	250 Euston Road	0.65	115 homes	Mixed-use residential and commercial: Permanent self-contained homes; employment; retail	More vulnerable (housing) / Less vulnerable (commercial)	85	10	5	0	Previously developed site. 6 to 20 sewer flooding incidents in this area between 2013-2023. The majority of the site is identified as being at either very low or low risk of surface water flooding, with 5% of the site identified at medium risk, and 0% at high risk of surface water flooding. Potential for ground water flooding to occur below ground level and at surface. The site is within the secondary A aquifer.	Yes, site is located in flood zone 1 and the level of flood risk vulnerability is considered compatible with the flood zone. Furthermore, it is considered that the flood risk identified can be mitigated through a Flood Risk Assessment.
EA5	Euston Square Hotel, 156 North Gower Street	0.6	20 homes	Mixed-use residential and commercial: Permanent self-contained homes; hotel.	More vulnerable (housing) / Less vulnerable (commercial)	90	10	0	0	Previously developed site. 6 to 20 sewer flooding incidents in this area between 2013-2023. 100% of the site is identified as being at very low risk of surface water flooding. Potential	Yes, site is located in flood zone 1 and the level of flood risk vulnerability is considered compatible with the flood zone. Furthermore, it is considered that the flood risk identified

Site Ref	Site Name	Site Area (Ha)	Site Capacity (homes / student housing)	Proposed Uses	NPPG vulnerability of proposed land use	% of the site at risk of surface water flooding				Flood risk commentary	Sequential test passed
						Very Low	Low	Medium	High		
										for flooding of property situated below ground level and potential for groundwater flooding to occur at surface. The site is within the secondary A aquifer.	can be mitigated through a Flood Risk Assessment.
EA6	Cutting at Park Village East	1.18	350 homes	Predominantly residential use: permanent self-contained homes.	More vulnerable (housing)	95	4	1	0	Previously developed land. 21 to 40 sewer flooding incidents between 2013-2023. The majority of the site is identified as being at very low or low risk of surface water flooding, with 1% at medium risk and 0% at high risk of surface water flooding.	Yes, site is located in flood zone 1 and the level of flood risk vulnerability is considered compatible with the flood zone. Furthermore, it is considered that the flood risk identified can be mitigated through a Flood Risk Assessment.
EA7	Granby Terrace Bridge/ Hampstead Road	0.12	30 homes	Predominantly residential use: permanent self-contained homes.	More vulnerable (housing)	95	5	0	0	Previously developed site. 21 to 40 sewer flooding incidents in this area between 2013-2023. 100% of the site is identified as being at very low or low risk of surface water flooding.	Yes, site is located in flood zone 1 and the level of flood risk vulnerability is considered compatible with the flood zone. Furthermore, it is considered that the flood risk identified

Site Ref	Site Name	Site Area (Ha)	Site Capacity (homes / student housing)	Proposed Uses	NPPG vulnerability of proposed land use	% of the site at risk of surface water flooding				Flood risk commentary	Sequential test passed
						Very Low	Low	Med-ium	High		
											can be mitigated through a Flood Risk Assessment.
EA10	Regents Park Estate North	1.7	450 homes	Predominantly residential use: permanent self-contained homes; reprovision of community facilities; retail	More vulnerable (housing) / Less vulnerable (retail and community uses)	75	10	10	5	Previously developed site. 21 to 40 sewer flooding incidents in this area between 2013-2023. The majority of the site is identified as being at either very low or low risk of surface water flooding, with 20% of the site identified at medium or high risk of surface water flooding.	Yes, site is located in flood zone 1 and the level of flood risk vulnerability is considered compatible with the flood zone. Furthermore, it is considered that the flood risk identified can be mitigated through a Flood Risk Assessment.
EA12	Surma Centre, 1 Robert Street, NW1 3JU	0.03	15 homes	Predominantly residential use; permanent self-contained homes; community facilities	More vulnerable (housing) / less vulnerable (community uses)	90	10	0	0	Previously developed site. 0 to 5 sewer flooding incidents in this area between 2013-2023. 100% of the site is identified as being at either very low or low risk of surface water flooding. The site is within the secondary A aquifer.	Yes, site is located in flood zone 1 and the level of flood risk vulnerability is considered compatible with the flood zone. Furthermore, it is considered that the flood risk identified can be mitigated through a Flood Risk Assessment.

Site Ref	Site Name	Site Area (Ha)	Site Capacity (homes / student housing)	Proposed Uses	NPPG vulnerability of proposed land use	% of the site at risk of surface water flooding				Flood risk commentary	Sequential test passed
						Very Low	Low	Med- ium	High		
EA13	Amphill Estate Railway Edge	0.145	120 homes	Predominantly residential use; permanent self-contained homes; community facilities	More vulnerable (housing) / less vulnerable (community uses)	75	10	5	10	Previously developed site. 0 to 5 sewer flooding incidents in this area between 2013-2023. The majority of the site is identified as being at either very low or low risk of surface water flooding, with 15% of the site identified at medium or high risk of surface water flooding.	Yes, site is located in flood zone 1 and the level of flood risk vulnerability is considered compatible with the flood zone. Furthermore, it is considered that the flood risk identified can be mitigated through a Flood Risk Assessment.

Sites with a medium to high chance of surface water flooding

Of the 13 sites assessed, 5 sites have been identified with a medium to high chance of surface water flooding, where over 15% of the site is identified as being at either medium or high risk of surface water flooding. These sites are considered to pass the requirements of the Sequential Test, due to the location of the sites and the fact that no sequentially preferable sites are available that could deliver the levels of development identified, due to the limited availability of land in Camden. Furthermore it is considered that any flood risk can be mitigated through a Flood Risk Assessment as part of the planning application process. Given all the sites are in Flood Zone 1, the exceptions test doesn't apply.

Site Ref	Site Name	Site Area (Ha)	Site Capacity (Homes/ student housing)	Proposed Uses	NPPG vulnerability of proposed land use	% of the site at risk of surface water flooding				Flood Risk Commentary	Sequential Test passed
						Very Low	Low	Medium	High		
EA1	Euston Station	16.8	Up to 250 homes	Mixed-use commercial led development, permanent self-contained homes; retail; open space; transport infrastructure.	Essential infrastructure (transport) / More vulnerable (housing) / Less vulnerable (commercial)	65	20	5	15	Previously developed site. 6 to 20 sewer flooding incidents in this area between 2013-2023. The majority of the site is identified as being at either very low or low risk of surface water flooding, with 20% of the site identified at medium/high risk of surface water flooding. Potential ground water flooding at surface at southern boundary.	Yes, site is located in flood zone 1 and the level of flood risk vulnerability is considered compatible with the flood zone. Furthermore, it is considered that the flood risk identified can be mitigated through a Flood Risk Assessment.
EA3	The Place and Premier Inn, Somerton House, 1 and 1 Duke's	0.55	125 new/ re-provided homes	Mixed-use residential and commercial: Permanent self-contained homes; hotel.	More vulnerable (housing and education) / Less vulnerable (commercial)	40	40	15	5	Previously developed site. 6 to 20 sewer flooding incidents in this area between 2013-2023. The majority of the site is identified as being at either very low or low	Yes, site is located in flood zone 1 and the level of flood risk vulnerability is considered compatible with the flood zone. Furthermore, it is

Site Ref	Site Name	Site Area (Ha)	Site Capacity (Homes/ student housing)	Proposed Uses	NPPG vulnerability of proposed land use	% of the site at risk of surface water flooding				Flood Risk Commentary	Sequential Test passed
						Very Low	Low	Med- ium	High		
	Road, 16 Flaxman Terrace, WC1H									risk of surface water flooding, with 20% of the site identified at medium/high risk of surface water flooding. Potential for ground water flooding at surface on southern half of site. The site is within the 'secondary A' aquifer.	considered that the flood risk identified can be mitigated through a Flood Risk Assessment.
EA8	Cutting at Mornington Terrace	0.64	130 homes	Predominantly residential use: permanent self-contained homes.	More vulnerable (housing)	50	20	10	20	Previously developed site. 21 to 40 sewer flooding incidents in this area between 2013-2023. The majority of the site is identified as being at very low or low risk of surface water flooding, with 30% identified at medium or high risk of surface water flooding.	Yes, site is located in flood zone 1 and the level of flood risk vulnerability is considered compatible with the flood zone. Furthermore, it is considered that the flood risk identified can be mitigated through a Flood Risk Assessment.
EA9	Former Maria Fidelis School, Starcross Street	0.12	250 homes	Mixed-use residential and commercial: Permanent self-contained homes; employment	More vulnerable (housing) / Less vulnerable (commercial)	75	5	5	15	Previously developed site. 6 to 20 sewer flooding incidents in this area between 2013-2023. The majority of the site is identified as being at either very low or low risk of surface water flooding, with 20% of	Yes, site is located in flood zone 1 and the level of flood risk vulnerability is considered compatible with the flood zone. Furthermore, it is considered that the flood risk identified

Site Ref	Site Name	Site Area (Ha)	Site Capacity (Homes/ student housing)	Proposed Uses	NPPG vulnerability of proposed land use	% of the site at risk of surface water flooding				Flood Risk Commentary	Sequential Test passed
						Very Low	Low	Med- ium	High		
										the site identified at medium or high risk of surface water flooding.	can be mitigated through a Flood Risk Assessment.
EA11	Capital City College	0.18	70 homes	Mixed-use: permanent self-contained homes; reprovision of education facilities if required	More vulnerable (housing and education)	30	40	20	10	Previously developed site. 0 to 5 sewer flooding incidents in this area between 2013-2023. The majority of the site is identified as being at either very low or low risk of surface water flooding, with 30% of the site identified at medium or high risk of surface water flooding. Potential for ground water flooding to occur at surface. The site is within the 'secondary A' aquifer.	Yes, site is located in flood zone 1 and the level of flood risk vulnerability is considered compatible with the flood zone. Furthermore, it is considered that the flood risk identified can be mitigated through a Flood Risk Assessment.

Summary and conclusions

Managing flood risk has been a key consideration in the Plan making process. 13 sites were considered through the sequential test, of which 8 sites were considered to have a low to medium chance of flooding and 5 sites were considered to have a medium to high chance of surface water flooding. All sites are in Flood Zone 1 and considered to pass the sequential test as the land use proposed is compatible with the flood zone, and no sequentially preferable sites are available, given the limited availability of land in Camden.

Where sites have been identified as being at risk of flooding then measures to mitigate the flood risk on those sites have been incorporated into the relevant site allocation policies. Flood Risk Assessments will also be required for sites of 1 hectare or greater, and where a flood risk (from any source) has been identified on the site.