Brent Flood Risk Sequential and Exceptions Test

September 2020

Contents

1 Introduction

1.0 The London Borough of Brent to support the Brent Local Plan has undertaken sequential testing of the site allocations and intensification corridors that the Plan identifies. The National Planning Policy Framework (NPPF) (Feb 19) identifies that a Local Plan should apply a sequential approach to potential flood risk taking account of current and future impacts of climate change.

1.1 The draft Brent Local Plan seeks to be consistent with the Intend to Publish London Plan. This identifies a significant amount of new development for the borough. This includes:

a) increase in the number of new homes in the borough of a minimum of 23,250 dwellings in the period 2019/20-2028/29;
b) providing more industrial, office and retail/leisure floorspace
c) accommodate additional waste capacity
d) accommodate additional student accommodation and
e) provide for additional hotel bedrooms

1.2 The document identifies the flood risk categorisation for the site allocations and applies the sequential and exceptions test (where necessary) to support the draft Brent Local Plan submission version. As of August 2020, the document has also been updated to take into account conclusions and recommendations of the updated Brent SFRA Level 2 (August 2020) undertaken by Metis.

1.3 The draft Brent Local Plan proposes to allocate 105 sites for housing, industrial, education or a mix of uses. It also identifies 'intensification corridors'. These are priority locations for development, where taller buildings/denser development are likely to be acceptable. Consistent with the West London Strategic Flood Risk Assessment Level 1 the sequential test has been applied to both fluvial and pluvial (surface water) flood risk. Of the allocations, 40 are wholly within either Flood Zone 1 Fluvial and outside Surface Water Zone 3. The remainder have at least some in either Zone 2 Fluvial or Zone 3 Fluvial/ Pluvial. This document identifies that the allocation of identified sites is consistent with the NPPF and sequential/ exceptions testing requirements. The same assessment of intensification corridors has also been undertaken.

Policy Context

1.4 The NPPF requires Local Planning Authorities to direct development towards areas at lowest risk of flooding through the sequential approach. Sites 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. The sequential approach should be used in areas known to be at risk now or in the future from any form of flooding. If it is not possible for development to be located in zones with a lower risk of flooding (taking into account wider sustainable development objectives), the exception test may have to be applied. The need for the exception test will depend on the potential vulnerability of the site and of the development proposed, in line with the Flood Risk Vulnerability Classification set out in national planning guidance. The application of the exception test should be informed by a strategic or site-specific flood risk assessment, depending on whether it is being applied during plan production or at the application stage. For the exception test to be passed it should be demonstrated that:

a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and

b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

1.5 Both elements of the exception test should be satisfied for development to be allocated or permitted.

1.6 Where planning applications come forward on sites allocated in the development plan through the sequential test, applicants need not apply the sequential test again. However, the exception test may need to be re-applied if relevant aspects of the proposal had not been considered when the test was applied at the plan-making stage, or if more recent information about existing or potential flood risk should be taken into account.

Sites Considered

1.7 The London Borough of Brent has identified potential site allocations. The sites were assessed against a site assessment matrix in the Integrated Impact Assessment to consider their suitability for development. Sites considered acceptable were identified as site specific allocations. In order to meet the need for emerging London Plan small sites housing targets in particular, a number of 'intensification corridors' were identified as priority locations for development, rather than as specific allocations. These sites offer the opportunity to be treated as a single site, or more likely to be delivered in an incremental manner. All the potential site allocations are identified in Appendices 1 through to 5. The Intensification corridors are identified in Appendix 6.

Classification of Proposed Site Use

1.8 The proposed uses within the allocations/ intensification corridors have been classified consistent with National Planning Practice Guidance (PPG) Flood Risk and Coastal Change Table 2: Flood Risk Vulnerability Classification. For the range of uses identified on a site within the allocation/ consistent with existing use of the intensification corridor, the most vulnerable of the uses classification has been used in the assessment, e.g. on an industrial (less vulnerable) and residential (more vulnerable) allocation, the more vulnerable classification has been used.

2 The Sequential and Exception Test

2.1 This section sets out the methodology used to apply the Sequential Test and Exception Test. When allocating land in a Local Plan, local planning authorities should seek to steer new development to the lowest areas of flooding. They should apply the Sequential Test to show that there are no reasonably available sites at a lower risk of flooding that are appropriate for the proposed development. The PPG identifies the methodology for Local Plans preparation related to the sequential test. This is set out in Figure 1.

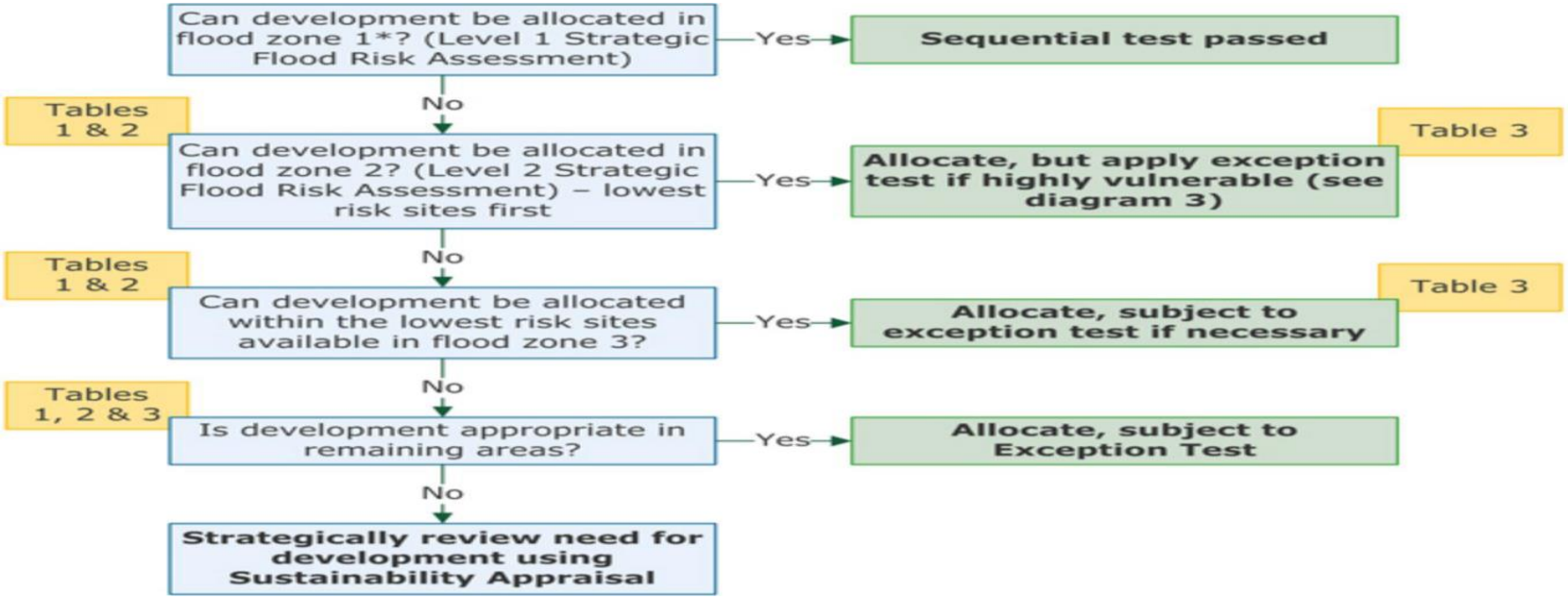

Figure 1: Application of the Sequential Test for Local Plan preparation (Flood Risk and Coastal Change PPG, Diagram 2)

2.2 After applying the Sequential Test, if there are no other options to allocate that development on a site at a lower risk of flooding, then the Exception Test might need to be applied, depending on the vulnerability of the proposals and the flood zone location (as set out in Figure 2 and Figure 3). In national planning policy in terms of exceptions testing, the emphasis appears to be in relation to sites at risk of fluvial flooding, rather than pluvial or other forms of flooding, for example the PPG advises sites in Zone 1 should not be subject to the exceptions test. The West London SFRA Level 1 in section 6.3 gives greater weight to the sequential and exceptions test being applied to risk of all sources of flooding (not just fluvial and tidal as previously generally applied). Consequently sites that are in Zone 1 for fluvial flooding, but Zone 3 for the purposes of pluvial flooding require the sequential and exceptions test to be passed. This has been addressed in this sequential and exceptions test document. To pass the test it must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk, and the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall. Both elements of the Exception Test should be satisfied for development to be allocated/ permitted.

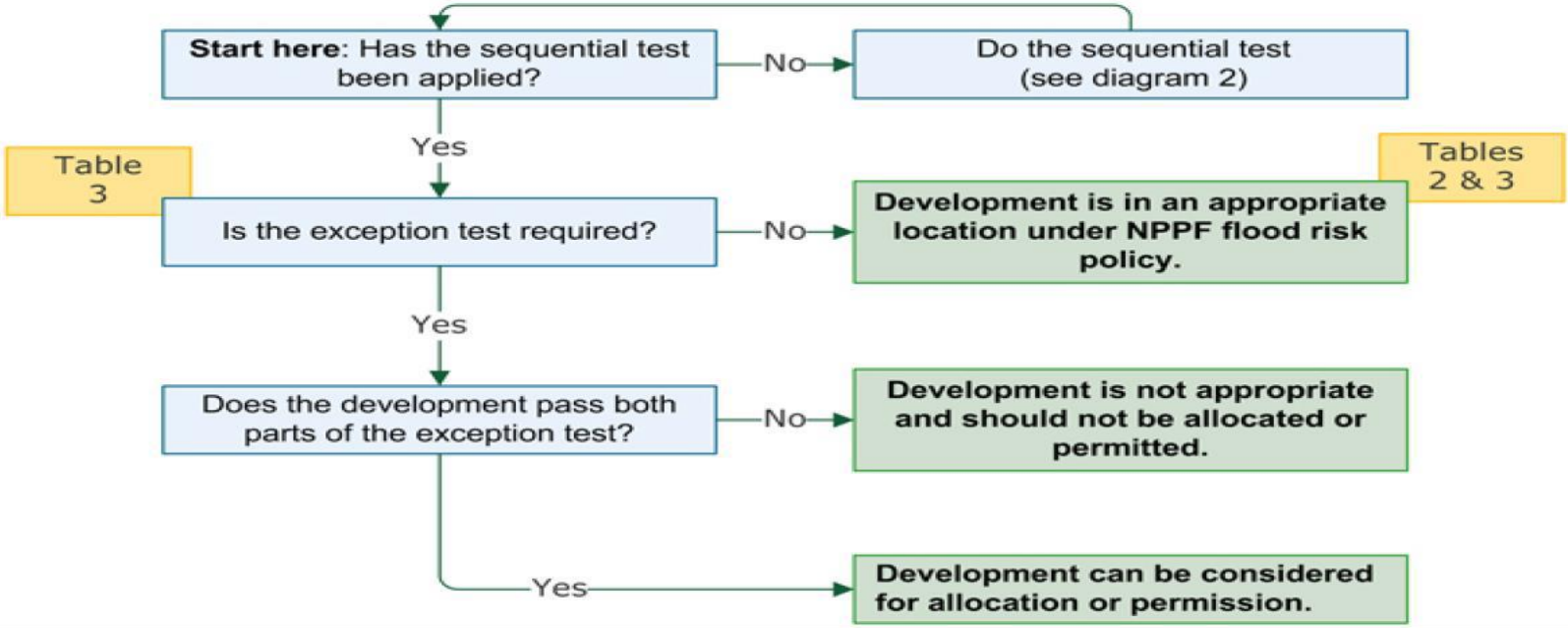

Figure 2 Application of the Exception Test to Local Plan preparation (Flood Risk and Coastal Change PPG, Diagram 3)

Flood Zones	Flood Risk Vulnerability Classification				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a †	Exception Test required †	✗	Exception Test required	✓	✓
Zone 3b *	Exception Test required *	✗	✗	✗	✓*

Key:

✓ Development is appropriate

✗ Development should not be permitted.

Figure 3: Flood Risk Vulnerability and flood zone 'compatibility' ((Flood Risk and Coastal Change PPG, Table 3)

Sequential Test Methodology

2.3 The Council has identified the site allocations. For the intensification corridors, it has sought to identify parts of the corridor that have similar characteristics from a flooding perspective and parcel them together. The Council has then taken account of the Brent SFRA Level 2. Section 3 'Methodology' of the SFRA2 provides more detail on the sources of information used to assess the flood risk to a potential allocation/designation and the suggested mitigation measures to make the development safe. In summary, flood risk sources from fluvial including climate change scenario +70%), surface water (up to 1 in 1000 year event to account for climate change), sewer, ground water, elevated ground water, critical drainage areas, reservoir breach and historic flood events to identify the flooding risks of that site. A pro-forma for each site in the SFRA2 addressed the current/proposed use, flood mechanisms, risk assessment, current risk summary, site access/egress, mitigation requirements, exception test and planning considerations. The information contained in the SFRA2 has been taken account of in Table 4 and Appendices 4, 5 and 6. Appendices 2-6 includes a summary position of the site allocations and intensification corridors identifying:

a) the site allocation reference/ intensification policy reference
b) site name
c) proposed use
d) proposed use vulnerability classification
e) site area
f) anticipated delivery of dwellings 19/20-28/29
g) anticipated delivery of dwellings 29/30-40/41
h) indicative site capacity
i) percentage of the site within each of : Fluvial Flood Zones 1, 2, 3a and 3b, Surface Water Flood Zone 3
j) whether it would be impacted by a reservoir breach
k) whether Sequential Test is required
l) whether Exception Test is required
m) whether a SFRA Level 2 is required

2.4 The draft Brent Local Plan proposes to allocate 105 sites for housing, industrial, education or a mix of uses. It also identifies 'intensification corridors'. These are priority locations for development, where taller buildings and higher density development are likely to be acceptable. Of the allocations 20 are wholly within Flood Zone 1 Fluvial and outside Zone 3 Surface Water. The remainder have at least some in either Zone 2 Fluvial or Zone 3 Fluvial/ Pluvial. This document identifies that the allocation of identified sites is consistent with the NPPF and sequential/ exceptions testing requirements.

Development Needs

2.5 The housing target that the Brent Local Plan is required to achieve has varied throughout the draft Local Plan production process. The Council had evidence at the start of the process in its 2016 Strategic Housing Needs Assessment (SHMA) that for the period 2011-2037 that an additional 47,500 homes were required, or 1,826 dwellings per annum. This would equate to around 40,172 over the proposed Brent Local Plan period. The Government's new standard methodology in 2017 was under development, but the draft was indicating that over 3,300 dwellings were required per annum. The current methodology using data available now (March 2020) indicates an unconstrained need of 3,408 dwellings per annum. The draft London Plan December 2017, which took account of objectively assessed needs and the borough's ability to accommodate development on the basis of the London Strategic Housing Land Availability Assessment May 2017 indicated 29,130 dwellings were required for the period 2019/20-2028/29. The Council sought to maximise its housing delivery to meet the draft London Plan target for the first 10 years of the draft Plan taking account of all potential deliverable capacity. For the years beyond it prioritised delivery to achieve the updated Brent SHMA October 2018 target, but was also mindful of the Government's objectively assessed need target which in years to come could increase the need above the SHMA level. The SHMA identified a need of 48,000 dwellings in the period 2016-41, or 1,920 dwellings per annum. For the draft Brent Local Plan period this equates to around 42,240.

2.6 The draft Brent Local Plan seeks to be in general conformity with the Intend to Publish London Plan. This new London Plan identifies a significant amount of new development for the borough. This includes:

a) increase in the number of new homes in the borough of a minimum of 23,250 dwellings in the period 2019/20-2028/29;
b) to meet the need for additional industrial floorspace in the borough (GLA representations indicated 43 hectares equivalent to 60 Wembley Stadium football pitches plus making up for any losses since the GLA undertook its land assessment), office space and retail and leisure needs.
c) accommodate additional waste capacity
d) accommodate additional student accommodation and
e) provide for additional hotel bedrooms.

2.7 Over the period to 2041 the population of the borough is expected to grow by approximately 65,000. In addition to the above development, the social and physical infrastructure needs of its population will also need to be accommodated. This creates a lot of potentially competing needs for existing brownfield land, which realistically is the only source available to the Council to accommodate these wide range of uses. Nearly all greenfield land is designated formal open space, forms part of wider nature conservation designations such as SINCs, for example in association with watercourse corridors or is part of wider social infrastructure provision, such as school playing fields and thus subject to policies that mean its loss to other forms of development is unlikely to be acceptable. As such, for the majority of sites (except 2 which are greenfield) only brownfield sites are being considered as allocations.

2.8 The Council in association with the London Plan team through the SHLAA process and the call for sites and other representations on the Local Plan considers that it has identified the most realistic deliverable sites with appropriate levels of capacity. The SHLAA process rigorously considered the larger sites likely to be deliverable over the Plan period, and the Council broadly agreed with its outputs. The London SHLAA did not specifically identify flood risk from surface water, only fluvial when assessing the capacity and deliverability of sites. It used the EA fluvial flood maps and SFRA 1 defined functional floodplains. Due to the types of restrictive policy allocations on greenfield sites identified in paragraph 2.7 in Brent at least fluvial Zone 3 on this type of site were essentially excluded from providing additional housing capacity in the SHLAA. On brownfield sites however, the SHLAA did not rule out sites within fluvial flood zones 3a. The potential capacity assumptions for these sites were only discounted by 10% [1]. This obviously impacted on Brent's London Plan housing target compared to a position of not including those sites.

2.9 For small sites, the London Plan SHLAA did identify potential additional capacity which would have reduced the number of site allocations that the Council would have had to identify to meet needs. However, neither the Council nor the Panel of Inspectors examining the London Plan considered the SHLAA's small site assessment robust for delivery purposes. As such, the Council sought to identify specific sites to deliver housing capacity in particular that would give greater likelihood to needs being likely to be met. The Local Plan issues and options process and the IIA process associated with the Plan has not identified reasonable alternatives in terms of specific sites or a strategy proposed that would suggest that sites in areas of lower flood risk are reasonably available for development. As such the sites it has put forward are the best available to deliver for the range of uses required to be in general conformity with the London Plan.

2.10 Although the Intend to Publish London Plan identifies a 10-year period minimum housing target, national policy seeks for Local Plans to identify deliverable sites for up to 15 years of housing provision post adoption. To help better meet long term housing needs, the Council has sought to plan further ahead to 2041 as sites can take some time to come forward between initially being identified in a Plan and delivered. It also allows for better planning by ensuring the potential of an area is considered as a whole, rather than an incremental, piecemeal approach, which might reduce the potential capacity of an area, or not allow for social infrastructure required in future years to be considered and planned for.

2.11 To be consistent with national policy, the Council has to identify a larger 'pool' of sites than its minimum housing target, so that if for whatever reason sites assumed to be deliverable do not come forward, there are others to ensure the minimum targets are delivered. This is necessary to support the housing delivery test and the need to identify on an on-going basis the availability of at least 5 years' supply of deliverable housing sites. Brent has a good track record of delivery against targets. Nevertheless, the targets now being sought are substantially higher than has been delivered over a consistent period of many years. As such, a 10% buffer is considered prudent in giving greater certainty of identified capacity translating into actual delivery. This buffer is the minimum requirement for annual position statements on housing site supply, although for areas that have not performed so well, the buffer is raised to 20% in practice guidance. For the Intend to Adopt London Plan, a 10% buffer would equate to a minimum of 25,575 dwellings. For Brent's objectively

[1] 2017 London Strategic Housing Land Availability Assessment Table 2.4 Ref 6.

assessed needs as set out in the SHMA for the period to 2041, a 10% buffer would create a target of 46,464 dwellings. For an initial London Plan requirement and then the national objectively assessed housing need target (3,255 dwellings per year), a total of 62,310 dwellings would be required. In relation to industrial sites, the Council has not been able to identify new sites not currently in industrial use to provide additional industrial floorspace capacity consistent with its needs. It is reliant on existing sites replacing existing floorspace, or providing a 0.65 plot ratio whichever is greater.

Housing capacity identified from wholly Zone 1 sites/ sites with planning permission.

2.12 Within the housing trajectory that supports the Local Plan, sites that have a planning permission that are not within a proposed site allocation boundary will deliver 8,046 dwellings in the first 10 years and 8,171 over the whole plan period. Allocated sites wholly within Fluvial Flood Zone 1 and outside Surface Water Flood Zone 3 are set out in Appendix 1 and deliver 816 dwellings in the first 10 years of the Plan and for the Plan period 1,408 dwellings. Over the first 10 years of the Plan the two sources (permissions and Zone 1 sites) deliver 8,862 dwellings and over the whole plan 9,579 dwellings. This together with small sites windfalls (sites which cannot be specifically identified but have a historically been a source of dwellings, or have a reasonable prospect of contributing dwellings), which would include development within intensification corridors (2,805 dwellings) produce 11,667 dwellings in the first 10 years. Over the lifetime of the Plan they are projected to deliver 9,579 dwellings. This together with 7,930 windfalls for that period produces 17,509 dwellings. Therefore, in terms of the sequential test, these sites cannot meet the needs of the Intend to Publish London Plan target with 10% buffer (by 13,908 dwellings) and are well below (28,955 dwellings) the SHMA minimum objectively assessed needs plus a 10% buffer for the period to the end of the Plan. As such, sites outside Flood Zone 1 need to be considered.

2.13 Sites within Flood Zone 1 but with a small element of surface water (under 20%) within Flood Zone 3 are identified in Appendix 2. Taking account of all the sites passing the sequential and exception tests as addressed in Appendix 2, these provide 8,111 dwellings over the first 10 years of the Plan, and 14,332 dwellings over the Plan period. Together with all sites in paragraph 2.10, this provides 19,778 dwellings in the first 10 years and 31,841 dwellings over the whole Plan period. This is 5,797 dwellings below the London Plan target +10% buffer for the first 10 years. For the whole Plan period, it is 14,623 dwellings below the minimum objectively assessed need identified in the 2018 SHMA +10% buffer.

2.14 Next Fluvial Zone 2 and small areas of Zone 3 fluvial flooding identified in Appendix 3 have next been considered. Taking account of all the sites passing the sequential and exception tests, these provide 4,328dwellings over the first 10 years of the Plan, and 8,373 dwellings over the Plan period. Together with all sites within paragraphs 2.12 and 2.13 this provides 24,106 dwellings for the first 10 years of the Plan and 40,214 dwellings over the whole Plan period. This is 1,469 dwellings below the London Plan target +10% buffer for the first 10 years. For the whole Plan period it is 6,250 dwellings below the minimum objectively assessed need identified in the 2018 SHMA needs plus a 10% buffer.

2.15 As these sites cannot accommodate all the housing needs of the borough, the sites in Appendix 4 have been considered. These sites were subject to more extensive surface water flooding risk and have been considered as part of the SFRA Level 2. Taking account of all the sites passing the sequential and exception tests, these provide 1,075 dwellings over the first 10 years of the Plan, and 2,175 dwellings over the Plan period. Together with all sites within paragraphs 2.12, 2.13 and 2.14, this provides 25,181 dwellings for the first 10 years of the Plan and 42,389 dwellings over the whole Plan period. This is 394 dwellings below the London Plan target +10% buffer for the first 10 years. For the whole Plan period it is 4,075 dwellings below the minimum objectively assessed need identified in the 2018 SHMA needs plus a 10% buffer.

2.16 As these sites cannot accommodate all the housing needs of the borough, the sites in Appendix 5 have been considered. These sites were subject to more extensive fluvial flooding risk and have been considered as part of the SFRA Level 2. Taking account of all the sites passing the sequential and exception tests, these provide 2,766 dwellings over the first 10 years of the Plan, and 3,671 dwellings over the Plan period. Together with all sites within paragraphs 2.12, 2.13, 2.14 and 2.15 this provides 27,947 dwellings for the first 10 years of the Plan and 46,060 dwellings over the whole Plan period. This is 2,372 dwellings above the London Plan target +10% buffer for the first 10 years. For the whole Plan period it is 404 dwellings below the minimum objectively assessed need identified in the 2018 SHMA needs plus a 10% buffer. This is however well short (by 15,846 dwellings) of the London Plan requirement plus central government OAHN total of 62,310 dwellings.

2.17 The Intensification Corridors as sources of windfall housing do not have specific capacity of development identified for the Plan period. In terms of the sequential and exceptions test, these sites have been assessed and categorised in the same way as the site allocations. The results of this are set out in Appendix 6. For the purposes of the sequential and exceptions tests, these sites are considered acceptable for development, subject to site specific FRAs showing that the development can be safe for its lifetime and not increase flood risk on or off-site.

3 Conclusions

3.1 The sequential approach ideally would provide for all new development to be delivered in the areas least at risk of flooding. This would be sites wholly within Fluvial Flood Zone 1. The Council has sought to positively plan to meet needs by identifying as many sites as it can to deliver. Unfortunately, as can be seen from the sequential test it has not been able to identify sites wholly within Flood Zone 1 to meet objectively assessed housing needs and London Plan policy requirements for other uses. It has therefore undertaken sequential testing and where necessary exceptions testing, in considering the appropriateness of site allocations and other priority areas for development identified as intensification corridors.

3.2 Taking account of the information contained within this sequential and exceptions testing assessment, the Council regards the sites proposed for allocation for development and the intensification corridors in the Brent Local Plan as appropriate. Whilst sites are potentially at greater risk from flooding in an unmitigated scenario, a mixture of mitigation/ attenuation measures can ensure that

developments do not increase the risk to property or people on site and in some cases will lower risks compared to existing circumstances. A range of suitable measures include an on-site sequential approach to the location of buildings/uses, incorporation of surface water management measures, design of buildings, flood warnings and emergency planning measures. Surface water management on sites in particular has the potential to reduce flood risk off-site, reducing currently largely unrestricted off-site flows from hard surfaces. Notwithstanding the information contained within the sequential and exceptions testing and site specific Level 2 Flood Risk Assessment, further information including a site-specific flood risk assessment will be required at planning application stage to justify any specific proposals potentially at risk.

Figure 4 Sequential and Exception Test Summary Result for Site Allocations Not Wholly within Fluvial Flood Zone 1 and / or partly located within Surface Water Flood Zone 3.

Site Allocations

Site allocation	Site Name	Sequential Test Passed	Exception Test Passed
BCSA1	ASDA Wembley	Yes	Yes in principle, but would need to be confirmed by a site specific flood risk assessment
BCSA2	Stadium Retail Park and Fountain Studios (Fulton Quarter)	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BCSA3	Brook Avenue	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BCSA4	Fifth Way/ Euro Car Parts	Yes	Yes in principle, but would need to be confirmed by a site specific flood risk assessment
BCSA5	Olympic Office Centre	Yes	Yes in principle, but would need to be confirmed by a site specific flood risk assessment
BCSA6	Watkin Road	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BCSA7	Wembley Park Station (North & South)	Yes	Yes in principle, but would need to be confirmed by a site specific flood risk assessment
BCSA8	Wembley Retail Park	Yes	Yes in principle, but would need to be confirmed by a site specific flood risk assessment
BCSA9	First Way	Yes	Yes in principle, but would need to be confirmed by a site specific flood risk assessment
BCSA11	College of North West London Wembley	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BCSA12	Land to South of South Way	Yes	Yes in principle, but would need to be confirmed by a site specific flood risk assessment

Site allocation	Site Name	Sequential Test Passed	Exception Test Passed
BCSA16	Site NW04 Wembley Masterplan	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BEGA1	Neasden Stations Growth Area.	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BEGA2	Staples Corner Growth Area	Yes	Yes in principle, but would need to be confirmed by a site specific flood risk assessment
BESA1	Coombe Road	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BESA2	Cricklewood Bus Garage	Yes	Yes in principle, but would need to be confirmed by a site specific flood risk assessment
BNSA1	Capitol Way Valley	Yes	Yes in principle, but would need to be confirmed by a site specific flood risk assessment
BNSA2	Colindale Retail Park, Multi-Storey Car Park, Car Showroom and Southon House	Yes	Yes in principle, but would need to be confirmed by a site specific flood risk assessment
BNSA3	Queensbury LSIS and Morrisons	Yes	Yes in principle, but would need to be confirmed by a site specific flood risk assessment
BNSA8	Queensbury Station Car Park	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BNWGA1	Northwick Park Growth Area	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BNWSA1	Kenton Road Sainsbury's and adjoining land	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSESA1	Austen	Yes	Good probability of this being passed, but demonstration that development will be safe for

Site allocation	Site Name	Sequential Test Passed	Exception Test Passed
			its lifetime would need to be confirmed by a site specific flood risk assessment
BSESA2	Blake	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSESA4	Carlton Infant School	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSESA6	Crone & Zangwill	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSESA7	Dickens	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSESA8	Hereford House & Exeter	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BSESA11	Old Granville Open Space	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSESA17	Cricklewood Broadway Retail Park	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSESA21	Willesden Green Sainsbury's and garages	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment

Site allocation	Site Name	Sequential Test Passed	Exception Test Passed
BSESA25	Park Avenue Garage	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BSESA26	Park Avenue North Substation	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSESA29	Willesden Telephone Exchange	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSESA31	Turpin's Yard	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BSESA34	Kilburn Park Underground Station	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSSA1	Asiatic Carpets	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSSA2	B&M Home Store & Cobbold Industrial Estate	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BSSA3	Church End Local Centre	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSSA4	Chapman's and Sapcote Industrial Estate	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment

Site allocation	Site Name	Sequential Test Passed	Exception Test Passed
BSSA6	Argenta House & Wembley Point	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BSSA7	Bridge Park & Unisys	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BSSA9	Barry's Garage	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSSA10	Dudden Hill Community Centre	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSSA11	Euro car rental	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSSA15	Harlesden Station junction	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSSA17	Harlesden Railway Generating Station	Yes	NA
BSSA18	Harlesden Telephone Exchange	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSSA19	Chancel House	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA1	Alperton Industrial Sites	Yes	Good probability of this being passed, but demonstration that development will be safe for

Site allocation	Site Name	Sequential Test Passed	Exception Test Passed
			its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA2	Sainsbury's Alperton	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA3	Atlip Road	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA4	Sunleigh Road	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA5	Abbey Industrial Estate	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA6	Beresford Avenue	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA7	Northfields	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA8	Wembley High Road	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA9	Former Copland School	Yes	Good probability of this being passed, but demonstration that development will be safe for

Site allocation	Site Name	Sequential Test Passed	Exception Test Passed
			its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA10	Elm Road	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA12	Keelers Service Centre, Harrow Road, Wembley	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA13	Wembley Police & Fire Stations and Wembley Community Hospital	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA15	Employment Land on Heather Park Drive	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA16	Carphone Warehouse 416 Ealing Road	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BSWSA17	Former Wembley Youth Centre/ Dennis Jackson Centre London Road	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment

Intensification Corridors

Policy	Site Name	Sequential Test Passed	Exception Test Passed
BD2	327-383 Kenton Road Corridor	Yes	Good probability of this being passed, but demonstration that development will be safe

Policy	Site Name	Sequential Test Passed	Exception Test Passed
			for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	82-140 The Mall Corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Fryent Way Corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Honeypot Lane corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Kingsbury Road corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Colindale Edgware Road corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Harrow Road Sudbury corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Wembley Park Drive corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	84-98 Wembley Park Drive corridor	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA

Policy	Site Name	Sequential Test Passed	Exception Test Passed
BD2	Empire Way corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Forty Lane, Blackbird Hill and Neasden Lane North Corridor excluding area near River Brent and Brent Feeder	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	460-492 Neasden Lane	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BD2	438-444 Neasden Lane and Pitt House	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BD2	494-502 Neasden Lane	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BD2	Blackbird Court, Blackbird Hill	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BD2	Talbot Court to English Martyrs RC Church Blackbird Hill	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BD2	Site at The Mall & Kenton Road Corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	1-6 Smallburgh Mansions – 74 Watford Road Corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Willesden Lane (South)	Yes	Good probability of this being passed, but demonstration that development will be safe

Policy	Site Name	Sequential Test Passed	Exception Test Passed
			for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Dudden Hill Lane, Willesden High Road corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Brunel Court High Street Harlesden	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	231-255 and 248-298 Harrow Road corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Ealing Road (north) corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Bridgewater Road corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD1	Harrow Road (east) corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Bridgewater Court, Fernwood Avenue, Barnham Close, Harrow Road corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Dudden Hill Lane corridor	Yes	Good probability of this being passed, but demonstration that development will be safe

Policy	Site Name	Sequential Test Passed	Exception Test Passed
			for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Craven Park corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	2-4 North Circular Road, 2-32 Brentfield and 1a-3a Sunny Crescent	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BD2	Esso Filling Station Ealing Road	Yes	NA
BD2	Ainslie Court Ealing Road Corridor	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	2-44a Harrow Road	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BD2	Sylvia Court Harrow Road	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BD2	46-90 Harrow Road and 1a-1b Wyld Way	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	41-67 Harrow Road	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Pargraves Court Forty Avenue	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA

Policy	Site Name	Sequential Test Passed	Exception Test Passed
BD2	Century House and Taveners Court Forty Avenue	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BD2	1-10 Richmond Court and 80b Forty Avenue	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BD2	1 Forty Close & meeting room	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BD2	53-63 Forty Avenue, Perrin Grange, the City Learning Centre and Brook House and 58-64 Forty Avenue	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BD2	Sattavis Gam Patidar Centre, Forty Avenue	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Kenbrook Forty Avenue	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment
BD2	Springhill House, Willesden Lane	Yes	Yes, in principle – however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA
BD2	Willesden Lane (North)	Yes	Good probability of this being passed, but demonstration that development will be safe for its lifetime would need to be confirmed by a site specific flood risk assessment

Appendix 1 Sites within Flood Zone 1 and outside Surface Water Flood Zone 3

Site Allocation Reference	Site Allocation Name	Anticipated Delivery (no. of dwellings) 19/20-28/29	Anticipated Delivery (no. of dwellings) 29/30-40/41
BCSA10	York House	0	0
BCSA13	Former Malcolm House, Empire Way	100	0
BCSA14	St Joseph's Social Club	0	60
BCSA15	Site W10 Wembley Masterplan	0	0
BCSA19	Wembley Park Station, Police Station and Adjacent Land Bridge Road	60	0
BESA3	Gower House Blackbird Hill	57	0
BNSA4	Former Mecca Bingo Site	50	0
BNSA5	Kingsbury Library and Community Centre	0	27
BNSA6	Ex-volkswagen Garage	28	0
BNSA7	Kingsbury Trade Centre - Enterprise, Hand Car Wash, Printers	0	0
BSESA10	Neville & Winterleys	63	0
BSESA12	Wordsworth & Masefield	-40	Unknown
BSESA13	John Ratcliffe House	-64	41
BSESA14	William Dunbar & William Saville House	-147	197
BSESA15	UK Albanian Muslim Community and Cultural Centre	0	0

BSESA16	OK Club	0	0
BSESA18	245 - 289 Cricklewood Broadway	35	45
BSESA19	Gaumont State Cinema	0	0
BSESA20	Kilburn Square	50	50
BSESA22	Queen's Parade	42	0
BSESA23	Former Willesden Green police station	20	0
BSESA24	Kilburn Station arches	0	0
BSESA27	Car wash Strode Road	15	0
BSESA28	80 Strode Road	10	0
BSESA3	Carlton House	68	0
BSESA30	61-65 Shoot up Hill	0	20
BSESA32	45 - 54 Cricklewood Broadway	10	0
BSESA33	123 - 129 Cricklewood Broadway	0	12
BSESA35	303 - 309 Cricklewood Broadway	0	12
BSESA5	Craik	42	0
BSESA9	Kilburn Park Junior School	0	0
BSSA12	296-300 High Road	8	0
BSSA13	Learie Contantine Centre	26	0
BSSA14	Morland Gardens	65	0
BSSA16	Mordaunt Road	8	0
BSSA5	Willesden Bus Depot	30	30

BSSA8	McGovern's Yard	50	0
BSWSA11	Wembley Cutting North, Mostyn Avenue	15	0
BSWSA14	Sudbury Town Station car park	30	0
Harlesden NP	Car sales at junction of High Street and Furness Road	5	0
Harlesden NP	Land at Challenge Close	0	10
Harlesden NP	Harley Road	7	0
Harlesden NP	Former Willesden Ambulance Station	8	0
Harlesden NP	Harlesden Plaza	120	88
Harlesden NP	Salvation Army & Manor Park Works	45	0
		Total: 816	**Total:592**

Appendix 2 Fluvial Flood Zone 1 but with a small element of surface water (under 20%) within Flood Zone 3

<table>
<tr><td colspan="2">Site Allocation Ref: BCSA18</td><td colspan="2">Site Allocation Name: Site W12 Wembley Park Boulevard</td></tr>
<tr><td>Delivery 19/20-28/29:
0</td><td>Delivery 29/30-40/41
0</td><td colspan="2">Highest vulnerability of proposed use:
More Vulnerable</td></tr>
<tr><td colspan="2">Flood zone and other sources of flooding:
1% in FZ3 (surface water) within the 15-30cm range
No sewer flooding incidents
<25% susceptibility to groundwater flooding
No increased potential for elevated groundwater
Not in a source protection zone
In a critical drainage area
Not at risk of reservoir breach</td><td colspan="2">Sequential Test:
Pass: It is necessary to identify the site to address longer term town centre uses / community use needs as there are insufficient alternative sites in fluvial Zones 1 or 2 and outside surface water flood zone 3.</td></tr>
<tr><td colspan="4">Exception Test:
Sustainability benefits outweigh flood risk?
The site is within an area of high crime levels, and is in Wembley Town Centre, therefore having access to wide range of essential infrastructure including healthcare and sporting facilities. The site benefits from a high PTAL rating of 5, which should facilitate car free development, reducing car dependence and its associated traffic and air pollution. Positive impacts are anticipated due to the delivery of employment space and social impacts associated with this. The majority of the borough is within an Air Quality Management Area, and development can help improve air quality by being designed to modern sustainability standards which reduce energy use ad emissions.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and benefits from outline permission. A very small proportion of the site is at risk of surface water flooding, and appears to be related to run off from the highway (South Way), which is likely due to ponding due to impermeable surfacing. The predicted depth of the area at risk of flooding is 15-30cm. Based on the small area at risk of flooding and the predicted depths, it is considered that development can be safe for its lifetime and reduce risk of flooding elsewhere through development being directed towards areas of lower risk of flooding, and flood risk being managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. Overall the development</td></tr>
</table>

is likely to reduce flood risk off-site due to better on site surface water management that will reduce surface water run-off. In conclusion, there is a good probability of this site passing the exception test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSWSA5	**Site Allocation Name:** Abbey Industrial Estate	
Delivery 19/20-28/29: 300	**Delivery 29/30-40/41** 190	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 1% flood zone 3 surface water predominantly within the 15-30cm range, with some in the 30-60 range. Sewer flooding incidents. <25% susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing and industrial needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within an area of high crime rates and should benefit greatly from redevelopment. It is in close proximity to Alperton town centre and has access to a wide range of infrastructure. Although within reasonable proximity to Alperton tube, it only has a PTAL of 2, however, given the level of development in the Alperton Growth Area, this should increase along with local investments. The site's southern boundary is adjacent to the Grand Union Canal and represents an opportunity to enhance a watercourse. Positive impacts are anticipated due to the delivery of housing in an area with good accessibility to a range of essential infrastructure. Development can improve air quality by being designed to modern sustainability standards, which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing and industrial targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed. A very small proportion of the site is located within FZ3a (surface water). The parts of the site subject to surface water flood risk is subject to a planning application for residential development and commercial floor space (18/4919). A site specific FRA submitted as part of this application notes that areas of flood risk are within existing road alignments, suggesting that poor surface drainage is occurring, resulting in areas of flood risk. As part of the proposed development, the existing buildings and road formations will be		

removed and the new drainage infrastructure will ensure that no flooding from surface water will occur. This will be achieved through the provision of storage consisting of green roofs, permeable highway surface with underlying granular storage and buried cellular storage attenuation crates. Existing outfalls to the canal at the south of the site will be used to discharge unrestricted surface water for the adjacent area. In an extreme case of overflow of the drainage system, overland flow paths will be provide to direct surface water away from buildings towards the Grand Union Canal to the south. The FRA notes that the level of flood risk would reduce from medium (pre-development) to low (post-development). Sewer flood risk and groundwater flooding are assessed as being low. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exception test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSWSA13	**Site Allocation Name:** Wembley Police & Fire Stations and Wembley Community Hospital	
Delivery 19/20-28/29: 0	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: Highly Vulnerable
Flood zone and other sources of flooding: 1% flood zone 3 surface water equally within 15-30cm and 30-60cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site has good access to a range of amenities within Sudbury Town Centre which is close by, with healthcare and sporting facilities within walking distance. It has a good PTAL rating of 4, and positive impacts are anticipated due to the delivery of new housing in an area with good accessibility to a range of essential infrastructure, helping direct investment toward an area associated with high levels of crime. New development can help to improve air quality by being designed to modern sustainability standards which reduce energy use and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes**		

The site is already developed. A very small proportion of the site is located within FZ3a (surface water). This is on hardstanding associated with car parking/ access and is likely to be caused by ponding of water from adjacent hard surfaces, it is of low water depth. Based on the small areas being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exception test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSWSA16	**Site Allocation Name:** Carphone Warehouse 416 Ealing Road	
Delivery 19/20-28/29: 80	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 1% flood zone 3 surface water within 15-30cm and some 30-60cm range. Sewer flooding incidents. <25% susceptibility to ground water flooding Potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site has a good PTAL rating and positive impacts are anticipated due to the delivery of significant levels of housing. New development can help to improve air quality by increasing tree planting and being designed to modern sustainability standards which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed. A very small proportion of the site is at risk of surface water flooding, located on hardsurfacing on the		

junction from the highway of Alperton Lane to the rear of the unit (for servicing / deliveries). This is likely due to ponding due to impermeable surfacing and lower ground levels on the highway. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site is also at a moderate risk of groundwater flooding and relatively high risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exception test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSSA1	**Site Allocation Name:** Asiatic Carpets	
Delivery 19/20-28/29: 154	**Delivery 29/30-40/41** 260	**Highest vulnerability of proposed use**:
Flood zone and other sources of flooding: 1% flood zone 3 surface water with all in the 15-30 cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is located within a London Strategic Area for Regeneration and will achieve an uplift of approximately 220 dwellings to the local area. This provides an opportunity to introduce affordable housing and investment within a deprived area. The site has a PTAL of both 3 and 4 and is well serviced by local goods and services as well as key infrastructure. Positive impacts are anticipated due to the delivery of housing in an area with good accessibility to a range of essential infrastructure. Development can improve air quality by being designed to modern sustainability standards which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.		

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes A very small proportion of the site falls within FZ3a (surface water). A small element of the site benefits from permission for residential development via the prior approval process (18/2278), but this area is not subject to surface water flood risk. The site is previously developed. The areas at risk of surface water flooding are hardsurfaced areas around the footprint of the existing buildings and within a car parking area to the south. This is likely due to ponding due to impermeable surfacing and lower ground levels. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site is not subject to groundwater flooding but is at a high risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSWSA1	**Site Allocation Name:** Alperton Industrial Sites	
Delivery 19/20-28/29: 1173	**Delivery 29/30-40/41** 677	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 1% flood zone 3 surface water mostly within 15-30cm range, with some in the 30-60cm range. Sewer flooding incidents. <25% susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
The site is within an area which is subject to high crime rates and should benefit greatly from redevelopment. It is in close proximity to Ealing Road town centre and therefore has access to a wide range of essential facilities, in addition to having a PTAL rating of 4, due to immediate proximity to Alperton Tube station. The site's southern boundary is adjacent to the Grand Union Canal and therefore represents an opportunity to enhance a watercourse, improving its integration with nature and the wider public realm. The railway tracks which border the site to the east area wildlife corridor, and efforts should be made to integrate this into development proposals. Positive impacts are anticipated due to the delivery of housing. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing and industrial targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed. The area identified as being at risk of surface water flooding is located immediately at a number of places near buildings' elevations, where the hardsurfacing appears to slope down. This is therefore likely due to ponding due to impermeable surfaces and changes in ground levels. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site is also at relatively high risk sewer flooding and a moderate risk of groundwater flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Allocate for development

Site Allocation Ref: BNWSA1	**Site Allocation Name:** Kenton Road Sainsbury's and Adjoining Land	
Delivery 19/20-28/29: 150	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable

Flood zone and other sources of flooding: 1% flood zone 3 surface water in the 15-30cm range. Area affected by sewer flooding incidents. Part has small <25% susceptibility to ground water flooding A small part has potential for elevated ground water Not in a source protection zone In a critical drainage zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term industrial and housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within Kenton town centre and therefore has access to a wide range of facilities, in addition to having a high PTAL rating of 4 / 5. As the site is adjacent to a designated wildlife corridor, redevelopment represents an opportunity to enhance green infrastructure on site, with attempts to integrate this existing nature reserve. Positive impacts are anticipated due to the delivery of housing in an area with good accessibility, and new development can help improve air quality by increasing tree planting and being built to modern sustainability standards which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed. A very small proportion of the site is at risk of surface water flooding. The area at risk flooding appears to be a hardsurfaced area used for either delivery or servicing for the existing supermarket, located close to the railway line. This is likely due to ponding due to impermeable surfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site is also at high risk of sewer flooding and a low risk of groundwater flooding. Sufficient sewerage capacity can be provided either on or off-site as agreed with Thames Water. It should be demonstrated through a site specific flood risk assessment that development can be safe for its lifetime. Overall the development is likely to reduce flood risk off-site due to better on site surface water management that will reduce surface water run-off. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.	
Recommendation: Allocate for development	

<table>
<tr><td>Site Allocation Ref:
BSSA3</td><td colspan="2">Site Allocation Name: Church End Local Centre</td></tr>
<tr><td>Delivery 19/20-28/29:
99</td><td>Delivery 29/30-40/41
96</td><td>Highest vulnerability of proposed use:
More Vulnerable</td></tr>
<tr><td colspan="2">Flood zone and other sources of flooding:
1% flood zone 3 surface water equally within the 0-15cm and 15-30cm range.
Sewer flooding incidents.
No susceptibility to ground water flooding
No potential for elevated ground water
Not in a source protection zone
In a critical drainage area</td><td>Sequential Test:
Pass: It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.</td></tr>
<tr><td colspan="3">Exception Test:
Sustainability benefits outweigh flood risk? Yes
The site is located within a London Strategic Area for Regeneration and experiences high levels of crime and will therefore benefit greatly from redevelopment. The site is well positioned in terms of goods and services, access to essential infrastructure such as healthcare and schooling. The site has a PTAL rating of 2/3 but this could increase on the implementation of the West London Orbital. Development can improve air quality by being designed to modern sustainability standards which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site previously developed but includes some soft landscaping to the north. Parts of the site already benefit from planning permission (references 13/1098 and 13/2213). A very small proportion of the site is located with FZ3a (surface water). The areas at risk of surface water flooding are located on highways. This is likely due to ponding due to impermeable surfaces and lower ground levels. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site is also at relatively high risk sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.</td></tr>
<tr><td colspan="3">Recommendation: Allocate for development</td></tr>
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Site Allocation Ref: BCSA9	**Site Allocation Name:** First Way	
Delivery 19/20-28/29: 869	**Delivery 29/30-40/41** 393	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 2% flood zone 3 surface water 15-30cm and with a small part 30-60cm. Area not affected by sewer flooding incidents. Susceptibility to ground water flooding low (<25%) No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within 800m of Wembley Town Centre within the Wembley Growth Area, and therefore has good access to essential infrastructure. The site has potential for significant residential development. Although it has a low PTAL rating, it stands to benefit from better connections to the high levels of surrounding development, is within close walking distance to two railway stations and is likely to be a car free development. Positive impacts are anticipated due to the delivery of housing in an area with a good PTAL and good accessibility to infrastructure. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and a very small proportion of the site is located within FZ3a (surface water). Two permissions have been submitted on the site (18/4767 and17/3797) but neither of these are located within any of the areas at risk of surface water flooding. The areas at risk of surface water flooding relate to areas of hardstanding outside of the footprint of the existing buildings and are likely to be caused by ponding due to run off from buildings and impermeable hardsurfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site is also at high risk sewer flooding. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall the development is likely to reduce flood risk off-site due to better on site surface water management that will reduce surface water run-off. In conclusion, there is a good probability of this site passing the exceptions test,		

but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSWSA9	**Site Allocation Name:** Former Copland School	
Delivery 19/20-28/29: 250	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 2% flood zone 3 surface water within the 0-15cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing and industrial needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is well served by essential facilities and has the potential to link up the public domain of the new redeveloped Wembley Park area with the retail units along Wembley High Road through an improved commercial frontage and public realm. The site has an exceptional PTAL rating of 6a, being within close proximity of numerous train stations and bus stops. Positive impacts are anticipated due to the delivery of significant levels of housing. New development can help to improve air quality by increasing tree planting, being designed to modern sustainability standards which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed. A very small proportion of the site is located within FZ3a (surface water). A planning application has been submitted which covers the whole of the site allocation (reference 19/2981) for residential uses, flexible workspace and community uses. A drainage strategy submitted with the planning application notes that the small pockets of flooding can be mitigated by on site drainage and levels designs to control overland flow paths, and ensure overland flow is routed through the network of roads and public open space on site, directed away from buildings. The strategy notes that the flood maps identify low lying areas of topography to determine surface water flood		

risk and provide a starting point to understand areas susceptible to surface water flooding, and that there is not a history of surface water flooding. The site is not at risk of groundwater flooding. Overall, flood risk can be managed and reduced through locating buildings away from areas at risk, incorporation of SUDS (e.g. through improving permeability), features such as green roofs and storage tanks, and / or appropriate finished floor levels above the predicted maximum surface water flood levels. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSWSA8	**Site Allocation Name:** Wembley High Road	
Delivery 19/20-28/29: 423	**Delivery 29/30-40/41** 227	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 2% flood zone 3 surface water within the 0-15cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing and industrial needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is well served by essential facilities and has the potential to link up the public domain of the new redeveloped Wembley Park area with the retail units along Wembley High Road through an improved commercial frontage and public realm. The site has an exceptional PTAL rating of 6a, being within close proximity of numerous train stations and bus stops. Positive impacts are anticipated due to the delivery of significant levels of housing. New development can help to improve air quality by increasing tree planting, being designed to modern sustainability standards which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes**		

The site is previously developed. A very small proportion of the site is located with FZ3a (surface water). The small area at risk of surface water flooding on the site is located to the east on hard standing adjacent to the highway. This is likely due to ponding due to impermeable surfaces and lower ground levels. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site is also at relatively high risk sewer flooding and a moderate risk of groundwater flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSWSA4	**Site Allocation Name:** Sunleigh Road	
Delivery 19/20-28/29: 198	**Delivery 29/30-40/41** 197	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 2% flood zone 3 surface water within the 15-30cm range. Sewer flooding incidents. <25% susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing and industrial needs as there are insufficient alternative sites in fluvial zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within an area of high crime rates and should benefit greatly from redevelopment. It is in close proximity to Alperton town centre and has access to a wide range of infrastructure. Although within reasonable proximity to Alperton tube, it only has a PTAL of 2, however, given the level of development in the Alperton Growth Area, this should increase along with local investments. The site's southern boundary is adjacent to the Grand Union Canal and represents an opportunity to enhance a watercourse. Positive impacts are anticipated due to the delivery of housing in an area with good accessibility to a range of essential infrastructure. Development can improve air quality by being		

designed to modern sustainability standards which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan industrial and housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed. A very small proportion of the site is located within FZ3a (surface water). The areas of flood risk are within existing internal road alignments/hardstanding, suggesting that poor surface drainage is occurring, resulting in areas of flood risk. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a moderate risk of sewer flooding and low risk of groundwater flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSSA10	**Site Allocation Name:** Dudden Hill Community Centre	
Delivery 19/20-28/29: 29	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 2% flood zone 3 surface water within 0-15cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing and community needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
The site is well provisioned in terms of facilities, and has a high PTAL rating, meaning development would be car free. The existing site includes a games court and a playground which have fallen into disrepair creating a poor environment. The development would result in environmental enhancements. Positive impacts are anticipated due to the delivery of significant levels of housing and the reprovision of a larger purpose built community facility. New development can help to improve air quality by increasing tree planting, being designed to modern sustainability standards which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed. A planning application has been received (reference 19/2688) for residential dwellings and replacement community use. A site specific flood risk assessment was submitted as part of the application process. A very small proportion of the site is located within FZ3a (surface water), located on the south west of the site where the site meets the highway. The FRA notes that there are no historic records of surface water flooding in the immediate area have been identified, and that flood maps relate to topography and show areas where water would tend to pond, which is why the lower part of the site is shown as being at risk of surface water flooding. To reduce surface water flood risk, the proposal includes green roofs and roof areas occupied by plants or terraces. The green roofs will provide source control by reducing the rate of surface water run-off from the roof areas. The proposal will therefore not result in any increase in flood risk. An outline surface water drainage strategy was also produced as part of the FRA and takes into account the potential impacts of climate change. The strategy demonstrates that the proposed drainage network at the site has been designed to accommodate runoff during all events up to and including the 100 year return period plus 40% to allow for increases in rainfall intensity due to climate change for the lifespan of the development. The ground floor level of the development is between 100mm and 500mm higher than the adjacent carriageway levels which reduces the risk of surface water and sewer flooding from entering the building. Over land flow routes and drains will also be designed to carry rainwater away from the buildings towards Dudden Hill Lane. The FRA notes that the site is at very low risk of flooding from groundwater. The FRA demonstrates that the development can be safe for the duration of its lifespan. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Allocate for development

Site Allocation Ref: BWSA2	**Site Allocation Name:** Sainsbury's Alperton	
Delivery 19/20-28/29: 0	**Delivery 29/30-40/41** 200	**Highest vulnerability of proposed use**: More Vulnerable

Flood zone and other sources of flooding: 2% flood zone 3 surface water, most within 15-30cm range, some in 0-15cm range. Sewer flooding incidents. <25% susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is located within an area of high crime. The site is well served by facilities such as open space, healthcare and service facilities. The site has a fairly high PTAL of 4 and is located within the Alperton Growth Area, with a reasonable level of public transport accessibility. Positive impacts are anticipated due to the delivery of housing in an area with flood accessibility to a range of essential infrastructure. Development can improve air quality by being designed to modern sustainability standards which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed. A very small proportion of the site is located with FZ3a (surface water). The small area at risk of surface water flooding on the site is located to the east, on the highway, and road towards the supermarket carpark. This is likely due to ponding due to impermeable surfaces and lower ground levels. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site is also at relatively high risk sewer flooding and a moderate risk of groundwater flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.	
Recommendation: Allocate for development	

Site Allocation Ref: BSWSA17	**Site Allocation Name:** Former Wembley Youth Centre/ Dennis Jackson Centre London Road

Delivery 19/20-28/29: 169	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 2% flood zone 3 surface water within 15-30cm range. Sewer flooding incidents. <25% susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone Not in a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing and community needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The area is subject to high crime rates and is in close proximity to Wembley Central Town Centre, with good access to a range of floods and services. Overall, the site scores positively against social criteria, due to the anticipated delivery of new housing. Redevelopment should ensure the provision of community floor space. New development can help to improve air quality by increasing tree planting and being reduced to modern sustainability standards to reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets, and the existing permission demonstrates that development can be safe for its lifetime. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The majority of the site allocation is currently subject to planning application reference 18/4273 for residential use, in addition to a community centre and associated gardens and landscaping. A very small proportion of the site is located within FZ3a (surface water), and this appears to relate to a hardsurfaced car parking area which is ancillary to the existing community centre. A drainage design report was submitted as part of the application above, and proposals permeable hardsurfacing and a number of storage tanks to regulate surface water discharge from the site. Proposed surface water discharge will be restricted to 5 l/s, reducing the flow into the existing surface water sewage network and drastically reducing the existing flood risk of the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.		
Recommendation: Allocate for development		

Site Allocation Ref: BSWSA15	**Site Allocation Name:** Employment Land on Heather Park Drive

Delivery 19/20-28/29: 86	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 2% flood zone 3 surface water within 15-30cm and some 0-15cm range. Sewer flooding incidents. <25% susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing and employment needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is subject to high crime rates and is within immediate proximity to other strategic employment sites. The site may benefit from the redevelopment of the Northfields site to the south, which is set to improve links to Stonebridge Station, potentially increasing the PTAL rating of this site (currently rated 2 and 3). Positive impacts are anticipated due to the delivery of significant levels of housing. New development can help to improve air quality by increasing tree planting, being designed to modern sustainability standards which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed. A very small proportion of the site is in FZ3a (surface water). This is on hardstanding associated with car parking/ access and is likely to be caused by ponding of water from adjacent hard surfaces. This part of the site allocation has already been subject to a planning application (reference 18/0284) for residential development, with no development proposed in the area at risk of surface water flooding. Measures are proposed such as green roofs, rainwater harvesting and sustainable drainage measures including permeable hard surfaces, which should reduce flood risk. Based on the small areas being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.		
Recommendation: Allocate for development		

Site Allocation Ref: BCSA12	**Site Allocation Name:** Land to South of South Way	
Delivery 19/20-28/29: 0	**Delivery 29/30-40/41** 500	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 2% flood zone 3 surface water 15-30cm and with a small part 30-60cm. Area not affected by sewer flooding incidents. Susceptibility to ground water flooding low (<25%) No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within 800m of Wembley Town Centre and within the Wembley Growth Area, meaning good levels of access to essential infrastructure including schools and sporting facilities. The site has a low PTAL rating but stands to benefit from better connections to the high levels of surrounding development, and is within close walking distance to two railway stations. The site is well provisioned in terms of facilities. Development would be car free. The current building is poor quality and would result in environmental enhancements. Positive impacts are anticipated due to the delivery of significant levels of housing, together with industrial. New development can help to improve air quality by increasing tree planting, being designed to modern sustainability standards which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed. A very small proportion of the site is located within FZ3a (surface water). The areas at risk of surface water flooding relate to a small area of hardsurfacing to the rear of the building, presumably used for access or storage, and a small paved footpath to the front of the units, created by their front elevation. This is likely due to ponding due to impermeable surfaces and run off from the existing buildings. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.		

Recommendation: Allocate for development

Site Allocation Ref: BSESA21	**Site Allocation Name:** Willesden Green Sainsbury's and Garages	
Delivery 19/20-28/29: 25	**Delivery 29/30-40/41** 25	**Highest vulnerability of proposed use**:
Flood zone and other sources of flooding: 2% flood zone 3 surface water with most in the 0-15 cm range with some in the 15-30 cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass**: It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is located within Willesden Green and has good access to essential goods and services such as healthcare and schooling. The site is fairly large and should help uplift the area with a number of residential units, increasing town centre viability. The site has a good PTAL rating of 4. Positive impacts are anticipated due to the delivery of significant levels of housing. New development can help to improve air quality by increasing tree planting and being designed to modern sustainability standards which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Sustainability benefits outweigh flood risk? Yes** The site is previously developed. A very small proportion of the site is located with FZ3a (surface water). The small areas at risk of surface		

water flooding are on an area of hardstanding to the southern edge of the superstore, and a passageway between the superstore and garage. This is likely due to ponding due to impermeable surfaces and run off from the existing buildings. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site is also at relatively high risk sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSESA26	**Site Allocation Name:** Park Avenue North Substation	
Delivery 19/20-28/29: 2	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 2% flood zone 3 surface water with most in the 0-15 cm range with some in the 15-30 cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is well positioned in terms of essential infrastructure, being within walking distances of Willesden Green town centre and employment opportunities. Positive impacts are anticipated due to the delivery of significant levels of housing. New development can help to improve air quality by increasing tree planting, being designed to modern sustainability standards which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.		

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes A very small proportion of the site is located in FZ3a (surface water). The risk of surface water flooding appears to relate to run off from the highway and ponding due to changes in topography. The existing substation is located on higher ground. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site is also at high risk sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exception test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSSA9	**Site Allocation Name:** Barry's Garage	
Delivery 19/20-28/29: 35	**Delivery 29/30-40/41** 5	**Highest vulnerability of proposed use**:
Flood zone and other sources of flooding: 3% flood zone 3 surface water. Mostly within 30-60cm range, with some in the 15-30cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term industrial and housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
The site is well provisioned in terms of facilities and has a high PTAL rating. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets, plus support industrial intensification.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and a very small proportion of the site is located with FZ3a (surface water). The area at risk of surface water flooding relates to a lowered area of ground to the front elevation of the garage, which slopes down from the highway. It is therefore likely that the surface water flood risk relates to ponding caused by run off from existing buildings, the topography of the site, and impermeable hardsurfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Allocate for development

Site Allocation Ref: BSWSA12	**Site Allocation Name:** Keeler's Service Centre, Harrow Road, Wembley	
Delivery 19/20-28/29: 22	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable

Flood zone and other sources of flooding: 3% flood zone 3 surface water mostly within 0-15cm range with a very small part in the 15-30cm. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone Part in a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing and employment needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site has good access to a range of amenities within Sudbury Town Centre, with healthcare and sporting facilities within walking distance. It has a good PTAL rating of 4, and positives impacts are anticipated due to the delivery of new housing in an area with good accessibility to a range of essential infrastructure, helping direct investment toward an area associated with high levels of crime. New development can help to improve air quality by being designed to modern sustainability standards which reduce energy use and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is already developed. A very small proportion of the site is located within FZ3a (surface water). A planning application has been recently submitted. SUDS strategy submitted with it notes that the site is 100% impermeable, and that in a 1 in 100 storm return period the existing site will have a 24.90 l/s surface run off rate, and a 1 in 1 year surface run off rate of 7.80 l/s. It location on London Clay, will result in proposals to install green roofs and control surface water discharge from the site into the existing surface water sewer (via a new connection) at a restricted rate. Tanked systems are also proposed for attenuation via geocellular storage crates. Using these methods, it is anticipated to reduce surface water run off rates of 2.5 l/s. Although the proposal includes a basement plant room, the basement would be pumped to the gravity drainage network by a private packaged foul pumping station, to include non-return valves as standard thus protecting the basement in the event of sewer surcharge. Suitable infrastructure to reduce this risk can be agreed with Thames Water. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.	
Recommendation: Allocate for development	

Site Allocation Ref: BNWGA1	**Site Allocation Name:** Northwick Park Growth Area	
Delivery 19/20-28/29: 1300	**Delivery 29/30-40/41** 1300	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 3% flood zone 3 surface water with roughly an equal split of 15-30 cm range and 30-60cm ranges. Part of area affected by sewer flooding incidents. No susceptibility to ground water flooding low No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.

Exception Test:

Sustainability benefits outweigh flood risk? Yes

The site is well provisioned in terms of essential infrastructure with an on-site hospital and neighbouring Northwick Park for open space and sports. The site will be of mixed use development and should help provide a significant residential uplift, providing employment space with the potential for specialised fields of work to be included. Due to the size of the site, it experiences a range of PTALs with the majority of land designated 3, 4 and 5. Positive impacts are anticipated due to the delivery of housing in an area with a good PTAL and good accessibility to infrastructure. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The site is previously developed and a very small proportion of it is located in FZ3a (surface water). The pockets of surface water flood risk appears to relate to areas of hardsurfacing around the existing building footprints or on access roads within the site. This is likely due to run off from buildings and impermeable surfaces. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a moderate risk of sewer flooding in part. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In

conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BCSA5	**Site Allocation Name:** Olympic Office Centre	
Delivery 19/20-28/29: 0	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 3% flood zone 3 surface water 15-30cm and with a small part 30-60cm. Part of the area (north of railway) affected by sewer flooding incidents. Susceptibility to ground water flooding low (<25%) No potential for elevated ground water Not in a source protection zone The site is within an area that could be impacted by failure of the Brent reservoir.		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is located within the Wembley Growth Area, adjacent to Wembley Town Centre, has good access to facilities and a good PTAL rating of 5. Positive impacts are anticipated due to the delivery of housing in an area with a good PTAL and good accessibility to infrastructure. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to improve surface water management and incorporate other mitigation measures such as SUDS. **Safe for its lifetime without increasing floodrisk elsewhere and where possible reducing floodrisk overall? Yes** A very small proportion of the site is located within FZ3a (surface water), located on an area of hardsurfacing to the west of the existing office		

building, comprising a locally lowered landscaped feature. A drainage strategy can address this to reduce surface water discharge rates of the site through providing rainwater storage tanks and SUDS measures, removing the flooding risk, or potentially if still for capacity reasons moving it to elsewhere in the site. The scheme will result in a reduction in the existing rate of discharge to the surface water network. In addition elevated ground floor levels will provide additional flood protection during a surface water flood event if required. Depending on the height of the potential reservoir flood breach, it might be appropriate to either raise ground floor levels above flood heights, or consider locating more vulnerable uses from the first floor upwards. The site should have an emergency plan agreed with the Council's emergency planning officer related to reservoir breach. Overall flood risk off-site as a result of surface water run-off is likely to be reduced. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSSA2	**Site Allocation Name:** B&M Home Store & Cobbold Industrial Estate	
Delivery 19/20-28/29: 0	**Delivery 29/30-40/41** 160	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 3% flood zone 3 surface water with most in the 0-15 and 15-30cm range and the remainder in the 30-60cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing and employment needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is in a London Strategic Area for regeneration and the area is associated with high crime rates. As such it will benefit greatly from investment. The site is well serviced by local goods and services including key infrastructure. Positive impacts are anticipated due to the delivery of housing in an area with a good PTAL and good accessibility to infrastructure. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets		

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes The site is previously developed and a very small proportion of it is located in FZ3a (surface water). The surface water flood risk relates to the hardsurfaced carpark of Brent New Enterprise Centre, the access road to Cobbold Industrial Estate, an area of the carpark to the superstore adjacent to the building's eastern elevation, a hardsurfaced area within the curtilage of the shop. The risk of surface water flooding appears to relate to an extension of ponding from the highway and ponding due to run-off from the existing buildings and impermeable hardsurfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site is also at high risk sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BCSA7	**Site Allocation Name:** Wembley Park Station (North and South)	
Delivery 19/20-28/29: 456	**Delivery 29/30-40/41** 100	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 3% flood zone 3 surface water 15-30cm and with a small part 30-60cm. Area not affected by sewer flooding incidents. Susceptibility to ground water flooding low (<25%) No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
The site is within the Wembley Opportunity Area and is adjacent to Wembley town centre, having access to a wide range of essential facilities. The site has a very good PTAL rating which is set to increase. Positive impacts are anticipated due to the delivery of housing in an area with a good PTAL and good accessibility to infrastructure. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to improve surface water drainage and incorporate other mitigation measures such as SUDS.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and a very small proportion of the site is located with FZ3a (surface water). The area at risk of surface water flooding relates to a hardsurfaced area of the carpark adjacent to part of the station building, and a passage leading on from this between the rear of this building and the railway line. It is likely that the risk of flooding is due to ponding caused by run off from existing buildings and impermeable hardsurfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a moderate risk of sewer flooding in the north and a low risk of groundwater flooding. The sewer flooding can be addressed through on, or off-site infrastructure agreed in conjunction with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall, due to reductions in surface water run-off, the site is anticipated to reduce flood-risk elsewhere. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Allocate for development

Site Allocation Ref: BSESA6	**Site Allocation Name:** Crone & Zangwill	
Delivery 19/20-28/29: 50	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable

Flood zone and other sources of flooding: 4% flood zone 3 surface water with the majority in the 15-30 cm range and some in the 30-60cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is part of the South Kilburn masterplan and is within a London Strategic Area for regeneration. It has high levels of accessibility to essential infrastructure and a good PTAL rating of both 4 and 5. The site will benefit from a change in layout. Positive impacts are anticipated due to the delivery of housing in an area with a good PTAL and good accessibility to infrastructure. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and a very small proportion is located with FZ3a (surface water). The area at risk of surface water flooding relates to hardsurfaced access to on-site car parking, and as such the flood risk is probably due ponding cause by run off from existing buildings and impermeable surfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a moderate risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.	
Recommendation: Allocate for development	

Site Allocation Ref: BSWSA10	**Site Allocation Name:** Elm Road	
Delivery 19/20-28/29: 400	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 3% flood zone 3 surface water mostly within 15-30cm range, with some in the 0-15cm and 30-60cm range and a very small part in the 60-90cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone Part in a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing and industrial needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** Positive impacts are anticipated due to the delivery of housing in an area with a good PTAL and good accessibility to infrastructure. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and a very small proportion of the site is located within FZ3 (surface water). The pockets include a passageway to the left of Natwest which slopes down, a carpark off of Ecclestone Court, the highway on St John's Road, the highway on Acacia Avenue and the hardsurfaced front gardens of the properties on Acacia Avenue, and the rear of the rear gardens of the houses on the north side of Acacia Avenue, towards the railway line. It is likely that the flood risk is due to ponding which could be caused by run off from existing buildings, changes in ground levels and lack of permeable hard surfacing. Based on the small areas being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.		

Recommendation: Allocate for development

Site Allocation Ref: BSESA29	**Site Allocation Name:** Willesden Telephone Exchange	
Delivery 19/20-28/29: 0	**Delivery 29/30-40/41** 20	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 5% flood zone 3 surface water with most in the 0-15 cm range with some in the 15-30 cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site has good access to a range of facilities. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and a small proportion lies within FZ3a (surface water). The area at risk of flooding relates to an area on the south of the site which appears to extend from the highway. The hardsurfacing serves as car parking and access to the rear of the building. It is likely that this is due to ponding caused by impermeable hardsurfacing. Based on the small areas being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exception test, but this would need to be confirmed by a site specific flood risk assessment.		

Recommendation: Allocate for development

Site Allocation Ref: BESA2	**Site Allocation Name:** Cricklewood Bus Garage	
Delivery 19/20-28/29: 0	**Delivery 29/30-40/41** 202	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 5% flood zone 3 surface water 15-30cm and with a small part 30-60cm. Area not affected by sewer flooding incidents. Susceptibility to ground water flooding low (<25%) No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is close to a London Strategic Area for Regeneration and is well provided for in terms of infrastructure, healthcare, schools and open space. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and a small proportion is located within FZ3a (surface water).The pockets at risk of surface water flooding relate to the southern part of the site which is hardsurfaced. It is likely that the flood risk relates to ponding as a result of impermeable hard surfacing. Based on the small areas being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate		

finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a moderate risk of sewer flooding. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSESA34	**Site Allocation Name:** Kilburn Park Underground Station	
Delivery 19/20-28/29: 20	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 5% flood zone 3 surface water with most in the 0-15 cm range with some in the 15-30 cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone		**Sequential Test:** Pass: It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within a London Strategic Area for Regeneration and is well served by facilities, and has a high PTAL rating. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and a very small proportion is located within FZ3a (surface water). The areas at risk of surface water flooding are located to the west (an area of hardsurfacing at the rear of the station and adjacent to Alpha Place to the rear) and an area to		

the north of the building which is at a lower ground level than the footpath to the north and east. It is likely that the pockets of flood risk are due to ponding caused by run off from existing buildings, changes in ground levels and impermeable hardsurfacing. Based on the small areas being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. Residential uses (more vulnerable) would be located on upper floors due to the existence of the station. The site has a high risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSSA17	**Site Allocation Name:** Harlesden Railway Generating Station	
Delivery 19/20-28/29: 0	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: Less Vulnerable
Flood zone and other sources of flooding: 6% flood zone 3 surface water with most in the 0-15cm range and a bit in the 15-30cm range. Sewer flooding incidents. <25% susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone Critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term employment needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: N/A		
Recommendation: Allocate for development		

Site Allocation Ref: BCSA1	**Site Allocation Name:** ASDA Wembley	
Delivery 19/20-28/29: 78	**Delivery 29/30-40/41** 407	**Highest vulnerability of proposed use**: More vulnerable
Flood zone and other sources of flooding: 6% flood zone 3 surface water (6%), predominant depth 0-15 cm, with a small part 15-30cm. Area affected by number sewer flooding incidents. Susceptibility to ground water flooding low (<25%) No potential for increased ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within a London Opportunity Area and should contribute a significant uplift in dwellings. The site is well provisioned with infrastructure, healthcare, schools and parks and sporting facilities. The site has a high PTAL rating and therefore benefits from good public transport links. The existing development is not in keeping with local character, has large parking facilities that promote use of the private car and is used at a low intensity given the area's high accessibility to public transport. It is creating a poor environment. Redevelopment can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions, particularly from private transport. The redevelopment of the site also provides the opportunity to increase housing provision, including affordable housing, whilst improving environmental performance in terms provision of green infrastructure on site, plus improving water management through incorporating other mitigation measures such as SUDS on a site which has very high levels of hard-surfacing and limited run-off attenuation currently. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet Brent population's required housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and a small proportion is located within FZ3a (surface water). The area at risk of surface water flooding relate to parts of the car park and extends south from the highway. This could be due to run off from the highway or the existing extensive area of hard surfacing and associated ponding due to changes in ground levels. Due to the small flood area future development on this site could be directed towards areas with no risk of flooding. In addition the potential to remove the current flooding extent can be explored, as it is likely to be contributed to by the amount of hardstanding on site/ limited underground storage capacity. The site has been subject to extensive ground levelling, the existing surface water flood zone and the volume could be moved to another part of the site, if such space is		

still required once the potential for on-site surface water management that could reduce run-off, e.g. through SUDS has been considered. Building floor levels can also be raised above potential flood heights. The site has a high risk of sewer flooding and a low risk of groundwater flooding. The sewer flooding can be suitably attenuated with Thames water through additional capacity being created elsewhere, or on site mitigation. Overall the development is likely to reduce surface water run-off and therefore flood risk through attenuating on site to a much higher level than currently. In terms of flooding as a result of the failure of the Brent reservoir, there will need to be a greater assessment of likely height, velocity of water and duration. It might be that raising floor heights is sufficient. If not more vulnerable uses could be located on the upper floors, with no sleeping accommodation on the ground floors. The potential for dry access and egress to higher adjacent ground needs to be considered, together with an emergency plan agreed with the Council's emergency planning team. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Allocate for development

Site Allocation Ref: BSESA4	**Site Allocation Name:** Carlton Infant School	
Delivery 19/20-28/29: 62	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 6% flood zone 3 surface water with a mixture between the 15-30 cm and 60-90 cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site forms part of the South Kilburn Masterplan and is within a London Strategic Area for Regeneration. The existing school will be re-provided elsewhere. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.		

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and a small proportion is located within FZ3a (surface water). The area at risk of surface water flooding appears to comprise an area around one of the existing school buildings, and part of that building itself. This may be caused by ponding due to the ground levels being slightly lower than surrounding ground levels, and impermeable hard surfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Allocate for development

Site Allocation Ref: BNSA1	**Site Allocation Name:** Capitol Way Valley	
Delivery 19/20-28/29: 501	**Delivery 29/30-40/41** 599	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 6% flood zone 3 surface water 15-30cm and with a small part 30-60cm. Area not affected by sewer flooding incidents. Susceptibility to ground water flooding low (<25%) No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is proposed to be an extension to an existing Growth Area which has been previously identified as being a sustainable location to accommodate significant growth. The area is well catered for in terms of essential infrastructure. Redevelopment should significantly enhance the site, enhancing the public domain and increasing the value and connectedness of existing non-designated green space and Grove Park. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage		

and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and a small proportion is located within FZ3a (surface water). Part of the site has been subject to a planning application for residential development and commercial uses (reference 17/0837). However, only a small part of the application site has areas at risk of surface water flooding. The majority of the pockets of flood risk are located in the south and south east of the site and relate to areas of hardsurfaced car parking and highway. Surface water flood risk is likely due to ponding caused by run off from buildings, changes in ground levels and impermeable hardsurfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding and low risk of groundwater flooding. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSWSA3	**Site Allocation Name:** Atlip Road	
Delivery 19/20-28/29: 450	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 7% flood zone 3 surface water, equally within the 0-15cm and 30-60cm range and a small part in the 0-30cm range. Sewer flooding incidents. <25% susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
The site is within close proximity to Alperton town centre and therefore has access to a wide range of essential facilities. The site benefits from immediate proximity to Alperton Tube Station and therefore has a relatively high PTAL of 4. The site borders railway tracks to the west which are a designated Wildlife Corridor. Efforts should be made to integrate this into development proposals, increasing green infrastructure along this edge in particular. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and a small proportion is located in flood zone 3a (surface water). Part of the site at risk of surface water flooding mainly consists of the highway which cuts through the site (Atlip Road) and hardsurfacing adjacent to buildings and is likely caused by ponding caused by run off from buildings and impermeable surfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a moderate risk of sewer flooding and low risk of groundwater flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Allocate for development

Site Allocation Ref: BSESA11	**Site Allocation Name:** Old Granville Open Space	
Delivery 19/20-28/29: 20	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable

Flood zone and other sources of flooding: 8% flood zone 3 surface water with most in the 15-30 cm range and a small part in 30-60cm ranges. Part of area affected by sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
The site is within a London Strategic Area for Regeneration and currently suffers from high levels of crime due to inactive frontage and poor site layout, which redevelopment would address. The site is well positioned in terms of good access to essential infrastructure. The site forms part of the South Kilburn Masterplan and is set to be replaced and incorporated within the Hereford and Exeter site so there will not be an overall reduction in open space serving the community. The site has a high PTAL rating. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is partly at risk of surface water flooding (FZ3a). However, this appears to relate to an area comprising of play equipment and is likely due to ponding caused by impermeability. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Allocate for development

Site Allocation Ref: BSWSA6	**Site Allocation Name:** Beresford Avenue

Delivery 19/20-28/29: 137	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 8% flood zone 3 surface water predominantly within the 15-30cm range, with some in the 30-60 range. Sewer flooding incidents. <25% susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing and industrial needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is well provisioned with regards to essential facilities. It backs onto the Grand Union canal and therefore represents an opportunity to enhance a watercourse. Development should focus on its integration with the canal, increasing levels of green infrastructure and accessibility from the public. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and a proportion of it is within FZ3a (surface water). There are a number of pockets of surface water flood risk on the site and the site has been subject to a number of planning applications. There is a pocket of flood risk to the north of the site, which has been subject to planning application reference (18/0752) for residential development. The associated Flood Risk report notes that surface water presently discharges to the public sewer, and that the development would result in approximately a 50% reduction in surface water discharge. The proposal also includes a storage tank and surface water discharge being restricted to reduce flooding risks. Towards the west, the hardsurfaced car parking area is at risk of surface water flooding. A number of prior approvals have been approved at the Liberty Centre. There is a pocket of flood risk towards the north east of the site which is likely caused from ponding extending from the highway (Beresford Avenue). Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a moderate risk of sewer flooding and low risk of groundwater flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in		

the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSSA18	**Site Allocation Name:** Harlesden Telephone Exchange	
Delivery 19/20-28/29: 21	**Delivery 29/30-40/41** 31	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 10% flood zone 3 surface water with most in the 0-60cm ranges. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone Not in a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within a London Strategic Area for Regeneration and is associated with high crime rates. It is well positioned in terms of essential infrastructure being within close proximity to Church End town centre, however, it is more than 1km away from a secondary school. This therefore makes it an excellent location for redevelopment into a school. The site has a relatively low PTAL, but is close to an underground station and bus routes. It will serve the local community as a secondary school, taking pressure off of other local facilities for which local pupils may have needed to be driven. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and a proportion of it is within FZ3a (surface water). The area at risk of surface water flooding comprises hardsurfacing and soft landscaping at the front of the existing building and part of the hardsurfacing forming access to the rear of the		

building. The flood risk area appears to extend from the highway. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSSA19	**Site Allocation Name:** Chancel House	
Delivery 19/20-28/29: 0	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 11% flood zone 3 surface water with most in the 30-60cm range and the remainder in the 15-30cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term education needs as extensive searches over a number of years indicate there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within a London Strategic Area for Regeneration and is associated with high crime rates. It is well positioned in terms of essential infrastructure being within close proximity to Church End town centre, however, it is more than 1km away from a secondary school. This therefore makes it an excellent location for redevelopment into a school. The site has a relatively low PTAL, but is close to an underground station and bus routes. It will serve the local community as a secondary school, taking pressure off of other local facilities for which local pupils may have needed to be driven. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes**		

The site is previously developed and a proportion of it is within FZ3a (surface water). The area at risk of surface water flooding comprises hardsurfacing and soft landscaping at the front of the existing building and part of the hardsurfacing forming access to the rear of the building. The flood risk area appears to extend from the highway. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSESA7	**Site Allocation Name:** Dickens	
Delivery 19/20-28/29: -135	**Delivery 29/30-40/41** 72	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 12% flood zone 3 surface water with the majority in the 15-30 cm range and some in the 30-60cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within a London Strategic Area for Regeneration and is part of the South Kilburn Masterplan. The area currently has high crime levels which may be exacerbated by the buildings poor design, with inactive ground floor frontages. The dwellings are poorly constructed and need to be demolished. Redevelopment will help to reduce crime within the area through increased passive surveillance. The site has high levels of accessibility to essential infrastructure such as healthcare and schooling. The site has a PTAL rating of 3, but is located within close proximity to Queen's Park station. New development can help improve air quality by being designed to modern sustainability standards to		

reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and a small proportion of the site is in flood zone 3a (surface water). The part of the site at risk of surface water flooding is located around the existing building footprint, on hardsurfaced roads / access around the buildings. Flooding is likely a result of run off from buildings and ponding caused by impermeable hardsurfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a moderate risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Allocate for development

Site Allocation Ref: BSESA2	**Site Allocation Name:** Blake	
Delivery 19/20-28/29: 50	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 12% flood zone 3 surface water with most in the 0-15 cm range with some in the 15-30 cm range. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
The site is within a London Strategic Area for Regeneration and is part of the South Kilburn Masterplan. The area currently has high crime levels which may be exacerbated by the buildings poor design, with inactive ground floor frontages. The homes need to be demolished due to their poor construction. Redevelopment will help to reduce crime within the area through increased passive surveillance. The site has high levels of accessibility to essential infrastructure such as healthcare and schooling. The site has a go PTAL rating and is located within close proximity to Queen's Park station. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing floodrisk elsewhere and where possible reducing floodrisk overall? Yes
The site is previously developed and a small proportion of the site is in flood zone 3a (surface water). The part of the site at risk of surface water flooding is located around the existing building footprint, on hardsurfaced roads / access around the buildings and some soft landscaping around the buildings. Flooding is likely a result of run off from buildings and ponding caused by impermeable hardsurfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a moderate risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce floodrisk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Allocate for development

Site Allocation Ref: BNSA2	**Site Allocation Name:** Colindale Retail Park, Multi-Storey Park, Car Showroom and Southon House	
Delivery 19/20-28/29: 200	**Delivery 29/30-40/41** 300	**Highest vulnerability of proposed use**: More Vulnerable

Flood zone and other sources of flooding: 12% flood zone 3 surface water Most in the 0-15 cm range with small parts in 15-30cm and 30-60cm ranges. Area not affected by sewer flooding incidents. Susceptibility to ground water flooding low (<25%) No potential for elevated ground water Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.

Exception Test:

Sustainability benefits outweigh flood risk? Yes

The area is well catered for in terms of essential infrastructure. PTAL is good and it is likely the development will be car free, thus removing the extensive traffic movements associated with this out of town type development. Redevelopment should significantly enhance the site, which is out of context with its surrounding finer grain townscape. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The site is previously developed with a relatively small proportion located within FZ3a (surface water), the majority is in the 0-15 cm depth range. The majority of the pockets of flood risk are located in the centre of the site and relate to areas of hardsurfaced car parking and highway. Surface water flood risk is likely due to ponding caused by run off from buildings, changes in ground levels and impermeable hardsurfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a low risk of sewer flooding and low risk of groundwater flooding. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Allocate for development

Site Allocation Ref: BSESA17	**Site Allocation Name:** Cricklewood Broadway Retail Park

Delivery 19/20-28/29: 200	**Delivery 29/30-40/41** 180	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 13% flood zone 3 surface water with most in the 0-15 cm range with some in the 15-30 cm and 30-60cm ranges. No sewer flooding incidents. <25% susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site has good access to facilities including sports, health and schooling and is in close proximity to Cricklewood town centre. The site has a good PTAL rating and the existing buildings create a poor environment and would benefit from redevelopment. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and partly located within FZ3a (surface water). The site includes a number of pockets of surface water flood risk, located in the carparks of the two existing buildings, along the highway to the buildings and adjacent to the north elevation of the northern building. This flooding is likely to be a result of run off from the existing buildings and ponding from this due to impermeable hardsurfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.		
Recommendation: Allocate for development		

<table>
<tr><td>Site Allocation Ref:
BSSA15</td><td colspan="2">Site Allocation Name: Harlesden Station Junction</td></tr>
<tr><td>Delivery 19/20-28/29:
3</td><td>Delivery 29/30-40/41
0</td><td>Highest vulnerability of proposed use:
More Vulnerable</td></tr>
<tr><td colspan="2">Flood zone and other sources of flooding:
13% flood zone 3 surface water with most in the 15-30cm range and a bit in the 30-60 cm range.
Sewer flooding incidents.
<25% susceptibility to ground water flooding
No potential for elevated ground water
Not in a source protection zone
Critical drainage area</td><td>Sequential Test:
Pass: It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.</td></tr>
<tr><td colspan="3">Exception Test:
Sustainability benefits outweigh flood risk? Yes
The site is within a London Strategic Area for Regeneration and is associated with high levels. The site is well provisioned in terms of goods and services, including essential infrastructure such as healthcare and schooling. The site has a strong PTAL of 6. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and a portion of the site is located within FZ3a (surface water). The part of the site which is at risk of flooding extends from the highway (Acton Lane) to the hardsurfacing to the front of the existing garage, and appears to be at risk of flooding due to ponding as a result of impermeable hardsurfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding and a low risk of groundwater flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.</td></tr>
</table>

Recommendation: Allocate for development

Site Allocation Ref: BSSA11	**Site Allocation Name:** Euro Car Rental	
Delivery 19/20-28/29: 10	**Delivery 29/30-40/41** 15	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 16% flood zone 3 surface water with most in the 0-15cm range and a bit in the 15-30 cm range. Sewer flooding incidents. <25% susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone Critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within a London Strategic Area for Regeneration and is well connected to a range of essential services such as town centres, employment opportunities and schools. The site is adjacent to the Canal Feeder which is a wildlife corridor and an opportunity for redevelopment to better enhance a watercourse which should in turn improve the general environment. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and is partly located within FZ3a (surface water). The site is hardsurfaced and the pockets of flood risk are		

likely due to ponding due to impermeable hardsurfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding and a low risk of groundwater flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSSA4	**Site Allocation Name:** Chapman's and Sapcote Industrial Estate	
Delivery 19/20-28/29: 245	**Delivery 29/30-40/41** 70	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 16% flood zone 3 surface water. Mostly within 15-30cm range, with some in the 0-15cm and 30-60cm ranges. Sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term industrial and housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within close proximity to a London Strategic Area for Regeneration and will benefit greatly from investment and the addition of affordable housing. The site has a PTAL of both 4 and 5 and is well serviced by local goods and services. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.		

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes The site is previously developed, and part of it is located within FZ3a (surface water). The areas at risk of surface water flooding are the access routes to the industrial estate and a yard on the eastern side of the site. The flooding on the access roads is likely due to run off from the buildings on the estate and ponding due to impermeable hardsurfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSESA1	**Site Allocation Name:** Austen	
Delivery 19/20-28/29: -36	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 19% flood zone 3 surface water with most in the 15-30 cm range and a small part in 30-60cm ranges. Area affected by sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2 and outside surface water flood zone 3.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within a London Strategic Area for Regeneration and is part of the South Kilburn Masterplan. The area currently has high crime levels which may be exacerbated by the buildings poor design, with inactive ground floor frontages. Redevelopment will help to reduce crime within the area through increased passive surveillance. The dwellings are poor quality and need to be demolished. The site has high levels of accessibility to essential infrastructure such as healthcare and schooling. The site has a high PTAL rating and is located within close		

proximity to Queen's Park station. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and a small proportion is in flood zone 3a (surface water). The part of the site at risk of surface water flooding is located around the existing building footprint, on hardsurfaced roads / access around the buildings and some soft landscaping around the buildings. Flooding is likely a result of run off from buildings and ponding caused by impermeable hardsurfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a moderate risk of sewer flooding. Suitable infrastructure to reduce this risk can be agreed with Thames Water. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Allocate for development

Appendix 3 Sites with Small Proportions (under 20%) of Fluvial Zone 3 (taking account of climate change)

<table>
<tr><td>Site Allocation Ref:
BCSA3</td><td colspan="2">Site Allocation Name: Fifth Way / Euro Car Parts</td></tr>
<tr><td>Delivery 19/20-28/29:
80</td><td>Delivery 29/30-40/41
370</td><td>Highest vulnerability of proposed use:
More Vulnerable</td></tr>
<tr><td colspan="2">Flood zone and other sources of flooding:
1% of site in Fluvial Zone 2. 2% in Zone 3 surface water, within the 0-60cm range.
Affected by sewer flooding incidents.
Susceptibility to ground water flooding low (<25%)
No potential for elevated ground water
Not in a source protection zone
In a critical drainage area
The site is within an area that could be impacted by failure of the Brent reservoir.
Less than 1% of the site falls within the 1:100 +70% climate change scenario Fluvial Flood Zone 3</td><td>Sequential Test:
Pass: It is necessary to identify the site to address longer term housing, hotel and industrial needs as there are insufficient alternative sites in fluvial zones 1 or 2.</td></tr>
<tr><td colspan="3">Exception Test:
Sustainability benefits outweigh flood risk? Yes
The site is within close proximity to Wembley town centre and has access to a wide range of facilities, including healthcare schooling and sporting facilities. The site has a good PTAL of 3 to 4. Redevelopment of the site represents an opportunity to enhance the watercourse of the Wealdstone Brook which runs at the northern edge of the site. Positive impacts are anticipated due to the delivery of housing, industrial and hotel in an area with a good PTAL and good accessibility to essential infrastructure. Development can improve air quality by being designed to modern sustainability standards which reduce energy usage and emissions. In conclusion, the site is at very low risk of flooding being almost wholly Zone 1 fluvial and is likely to be safe for its lifetime without increasing flood risk overall. There is an opportunity to reduce flood risk elsewhere through better surface water management than currently through on site attenuation to greenfield run-off rates and potentially providing more space for water adjacent to the Wealdstone Brook.</td></tr>
</table>

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes The site is previously developed. A very small proportion of the site is at risk of surface water flooding. The area at risk of surface water flooding relates to an area of ground which is at a lower level to the highway, and is sited between the highway and the existing building. This is likely due to ponding due to impermeable surfacing and lower ground levels. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site is also at relatively high risk sewer flooding and a low risk of groundwater flooding. The sewer risk can be addressed in association with Thames Water through adequate capacity being created on or off site. The site is potentially at risk of a failure of Brent reservoir with approximately 80% being shown to be subject to inundation. The height, depth and speed of inundation is not yet known. The site has a small change in levels and as such it might be possible to raise floor levels above potential inundation heights. Alternatively less vulnerable uses, consistent with the allocation can be used at ground floor level, with access to upper floors for safe refuge. An emergency plan should be agreed with the Council's emergency planning team to address the potential threat of the reservoir breach. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall the development is likely to reduce flood risk off-site due to better on site surface water management that will reduce surface water run-off. In conclusion, there is a good probability of this site passing the sequential test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BCSA8	**Site Allocation Name:** Wembley Retail Park	
Delivery 19/20-28/29: 2260	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 1% in fluvial flood zone 2. 11% flood zone 3 surface water majority in the 15-30cm and small parts in the 0-15cm and 30-60cm ranges. Area not affected by sewer flooding incidents. Susceptibility to ground water flooding low (<25%) No potential for elevated ground water Not in a source protection zone 80% site affected by potential reservoir breach.		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2.

Less than 1% of the site falls within the 1:100 +70% climate change scenario Fluvial Flood Zone 3	

Exception Test:

Sustainability benefits outweigh flood risk? Yes

The site is within the Wembley Opportunity Area. It is adjacent to Wembley Park Town Centre which reflects its high levels of access to essential infrastructure. The site benefits from immediate proximity to Wembley Park Station and has a high PTAL rating of 6a. Being located close to Wealdstone Brook, the site also provides an opportunity to enhance the watercourse. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to improve surface water management, reducing run-off levels to greenfield rates and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The site is previously developed and a proportion of the site is within FZ3a (surface water). The areas of flood risk are mainly located on hardsurfaced parking areas. he areas at risk of surface water flooding relate to areas of hardstanding outside of the footprint of the existing buildings and are likely to be caused by ponding due to run off from buildings and impermeable hardsurfacing. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. The site has a high risk of sewer flooding and low risk of groundwater flooding. The sewer issue can be sufficiently addressed either on or off-site with the agreement of Thames Water. A small proportion of the site is within Flood Zone 3 Fluvial taking account of climate change +70%. Buildings can be positioned away from this area which is adjacent to highway. The site potentially is at risk should there be a breach of the Brent reservoir, with approximately 80% of the site covered. The height of the water, speed of movement and duration is not known. The site has approximately a 1 metre height difference across the part that is within the area at risk. It might be possible to increase building floor heights so that they are above water levels, alternatively less-vulnerable uses could be accommodated on the ground floor with more vulnerable uses on the upper floors. An emergency action plan should be agreed with the Council's emergency planning team. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall the development is likely to reduce flood risk off-site due to better on site surface water management that will reduce surface water run-off. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Allocate for development

Site Allocation Ref: BEGA2	**Site Allocation Name:** Staples Corner Growth Area	
Delivery 19/20-28/29: 0	**Delivery 29/30-40/41** 2200	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 1% is within Fluvial Zone 2 and 1% is within Fluvial Zone 3b 2% flood zone 3 surface water evenly split between 0-15cm, 15-30cm and 30-60cm. Area not affected by sewer flooding incidents. Part has small <25% susceptibility to ground water flooding A small part has potential for elevated ground water Not in a source protection zone Not in a critical drainage zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term industrial and housing needs as there are insufficient alternative sites in fluvial zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within 100m of a London Strategic Area for Regeneration. It is associated with high crime rates and would therefore benefit from redevelopment. Regeneration would be required to provide industrial floor space at a higher density, and residential development could help subsidise the creation of new employment floor space adapted for future needs. Although the site has a low PTAL, this has not taken into consideration the potential for a West London Orbital link in the area. Positive impacts are anticipated due to the delivery of significant levels of housing. New development can help to improve air quality by increasing tree planting, being designed to modern sustainability standards which reduce energy usage and emissions. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is already developed. The northern tip of the site is in Flood Zone 3b and Zone 2. Zone B is associated with the river channel and immediate surroundings. Compliant with policy, buildings should be set back from the channel and not encroach into this zone, with opportunities for naturalisation considered. Zone 2 contains industrial buildings. Part has the potential to become flood zone 3 when taking account of the +25% climate change. This is currently not occupied by buildings and as such buildings should be steered away from this area in the future. Taking account of climate change +70%, nearly all Zone 2 becomes Zone 3 and sequentially more vulnerable uses should be directed away from this area. Areas at risk of surface water flooding are located on areas of hardsurfacing around the existing buildings, and on the highway or access roads. This is likely due to ponding due to run off from existing buildings and impermeable surfaces or flood		

risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce flood risk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BNSA3	**Site Allocation Name:** Queensbury LSIS and Morrisons	
Delivery 19/20-28/29: 194	**Delivery 29/30-40/41** 189	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 15% in fluvial zone 2. EA letter on Morrisons site planning application however states discrepancy in EA data and site is within Zone 1 15% flood zone 3 surface water equally split between 0-15cm, 15-30cm and 30-60cm ranges. Area not affected by sewer flooding incidents. Susceptibility to ground water flooding low (<25%) No potential for elevated ground water Not in a source protection zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site has good access public transport, being in PTAL 3-4, close to Queensbury Station and with a number of bus services passing through it. It is close to local facilities including retail, health and schooling. Many of the existing buildings create a poor environment, are an inefficient use of land and would benefit from redevelopment. New development can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan industrial and housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is already developed. Fluvial flood zone 2 runs through the site centres along Westmoreland Road and includes current buildings. EA responses on a planning application Dec 17 for the Morrisons site indicates discrepancies in flooding data for the area north of Honeypot		

Lane and that the site should be categorised as Zone 1. The site is relatively flat, indicating that flood waters are likely to be low. From a sequential perspective, development should be prioritised in Zone 1, with less vulnerable uses in Zone 2 (if further advice indicates there is a Zone 2). Areas at risk of surface water flooding are located on areas of hardsurfacing around the existing buildings, and on the highway or access roads. This is likely due to ponding due to run off from existing buildings and impermeable surfaces. Flood risk can be managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Better surface water management and the associated reduction in run-off rates to the surface water network is likely to reduce floodrisk on site and elsewhere in the catchment. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Allocate for development

Site Allocation Ref: BSWSA7	**Site Allocation Name:** Northfields	
Delivery 19/20-28/29: 1374	**Delivery 29/30-40/41** 1656	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 1% in fluvial 3b, 14% in fluvial 3a and 8% in fluvial zone 2 6% flood zone 3 surface water evenly split between 0-15cm, 15-30cm and 30-60cm range with a small bit in 60-90cm range Area affected by sewer flooding incidents. <25% susceptibility to ground water flooding A small part has potential for elevated ground water Not in a source protection zone In a critical drainage zone		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term industrial and housing needs as there are insufficient alternative sites in fluvial zones 1 or 2.

Exception Test:

Sustainability benefits outweigh flood risk? Yes

Since the Local Plan process was initiated the site has gained planning permission for the uses allocated in the Plan. In terms of wider sustainability benefits, the site is located within the Alperton Housing Zone as designated by the Mayor of London. The site scores positively against social criteria due to the positive impacts associated with delivery of housing in an area with good accessibility to a range of essential criteria. Due to the site's location, enhancement of green / blue infrastructure is encouraged, and new development can help to improve air quality in the area by increasing tree planting and being built to modern sustainability standards, reducing energy usage and emissions. The FRA associated with the permission for the site notes wider sustainability benefits from the regeneration of the site which comprises buildings that are unfit for safe use, in addition to increasing local job provision, contributing towards housing targets and provision of an improved cycleway / footway on Beresford Avenue. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The site is a previously developed brownfield site. The northern part of the site is primarily in FZ1, with low-lying north eastern tip falling into fluvial FZ2 and 3, with FZ2 extending part way along the water main trench which is lower than the surrounding site. The southern part of the site is entirely within FZ3 fluvial, with an area in functional floodplain (FZ3b). Development should respond to flood risk with the less vulnerable employment uses being accommodated on the southern part of the site and no built structures proposed within Flood Zone 3b. Minimum floor levels for "more vulnerable" development will be 1 in 100 +35% cc level plus a 30% freeboard allowance. The 1 in 100 + 35%cc levels for the FZ3 area of the northern site is between 24.700 to 24.775m AOD. The minimum FFL for "more vulnerable" development on the northern site will be 25.075m AOD, taking into account the 300mm freeboard. The lowest proposed FFL on the northern site is 25.550 AOD. All other FFLs are significantly higher than the 1 in 100 +35% cc flood level. The 1 in 100 +25% cc levels on the southern site are between 24.575 to 24.675m AOD. The ground floor of the commercial units will be below the 1 in 100 +25% cc flood level. It is therefore proposed to install automatic self-closing flood barriers at all entry points into the new building below this flood level to ensure these commercial unit are flood resistant. Safe refuge will be provided at upper floors for users of the commercial south site.

The existing northern site provides 12,522m3 of flood storage. It is proposed to provide 13,31m3 of flood storage, providing an additional 1,110m3 of flood storage within landscaped areas. This will benefit the wider catchment and reduce risk of potential flooding downstream. No structures on the southern site will be allowed to encroach into FZ3b. Surface water from the future development will be restricted to no greater than three times the pre-development greenfield flor rates and will discharge directly into the River Brent. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Allocate for development

Appendix 4 Sites with Over 20% Surface Water Zone 3 subject to SFRA Level 2

<table>
<tr><td>Site Allocation Ref:
BEGA1</td><td colspan="2">Site Allocation Name: Neasden Stations Growth Area</td></tr>
<tr><td>Delivery 19/20-28/29:
900</td><td>Delivery 29/30-40/41
1100</td><td>Highest vulnerability of proposed use:
More Vulnerable</td></tr>
<tr><td colspan="2">Flood zone and other sources of flooding:
17% flood zone 3 surface water (1 in 100 year extent). Potential for Flood depths are predominantly in the 30-60cm range on the sites adjacent to Neasden Lane, with other parts evenly spread in the 15-30cm and 60-90cm ranges. A very small part is within the 90-120cm.
6% in the 1 in 30 year extent (flood zone 3a surface water) and 32% in the 1 in 1000 year extent
No susceptibility to ground water flooding
No increased potential for elevated ground water
Not in a source protection zone
In a critical drainage area
6% area at risk of reservoir flooding with depths of 0.3-2 metre</td><td>Sequential Test:
Pass: It is necessary to identify the site to address longer term housing and industrial needs as there are insufficient alternative sites in Zones 1 or 2.</td></tr>
<tr><td colspan="3">Exception Test:
Sustainability benefits outweigh flood risk? Yes
The site is located in an area with good public transport accessibility levels that will rise with the delivery of the West London Orbital. The NPPF supports residential development on underutilised sites in areas of good public transport accessibility, such as this one. It has good access to local shops and services. Positive impacts are anticipated due to the delivery of housing and industrial in an area with a good PTAL and good accessibility to infrastructure. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing and industrial targets

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is not at risk of fluvial / tidal flooding. However, it is at risk of surface water flooding. Surface water ponding is predicted on the site during the 1 in 30-year pluvial event or greater. This is for the most part concentrated on the sites to the south of the Metropolitan line, either side of Neasden Lane. Potential depths of 90-120cm are to the west of Neasden Lane. 17% of the whole Growth Area is subject to 1 in 100</td></tr>
</table>

year event surface water flooding. Flood depths are predominantly in the 30-60cm range on the sites adjacent to Neasden Lane, with other parts evenly spread in the 15-30cm and 60-90cm ranges. A very small part is within the 90-120cm. These two sites are located on much lower ground than Neasden Lane highway. Elsewhere in the Growth Area, surface water drainage issues are essentially associated with ponding on sites of 15-30cm and 30-60cm, with similar levels also shown on adjacent highways. Flow paths are along adjacent highways, but for the Growth Area sites themselves are relatively self-contained on individual sites. Surface water flows down from the B453, Denzil Road and Southview Avenue towards the railway tracks. Climate change will increase the predicted extent, depth, velocity and hazard of flooding. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; finished floor levels being above max depths of the 1 in 1000 year event with 0.3m freeboard, flood compensation being provided if necessary, flood resistant and resilient buildings required in some locations, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable. If a more vulnerable use development must occur in the east of the site, any floors below the predicted flood depths of the 1 in 1000yr surface water event cannot be a more vulnerable use category.

Safe access / egress must be required as per the recommendations of the SFRA Level 2. As the site is at risk of reservoir breach flooding, emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan.

The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); and 2) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes of the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere. In the case of an application, a site specific flood risk assessment should demonstrate that the development can be safe for its lifetime in accordance with the SFRA level 2 requirements. In conclusion, the site passes the exceptions test in principle, however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA.

Recommendation: Allocate for development

Site Allocation Ref: BSESA31	**Site Allocation Name:** Turpin's Yard

Delivery 19/20-28/29: 8	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 25% in flood zone 3a (surface water) in the 1 in 100 year event, the majority in the 15-30cm range with smaller elements in the 0-15cm and 30-60cm ranges 10% in flood zone 3a surface water in the 1 in 30 year event and 56% in the 1 in 1000 year event Sewer flooding incidents (1-20) No susceptibility to groundwater flooding No increased potential for elevated groundwater Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in Fluvial Zones 1 or 2.

Exception Test:

Sustainability benefits outweigh flood risk? Yes

This site is partly within a location identified in the London Plan as an Area for Regeneration, being in the top 20% most deprived areas. This is a low density local employment site. The site benefits from good public transport access having a PTAL rating of 4. The NPPF and London Plan support residential development on underutilised sites in areas of good public transport accessibility, such as this one. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The site is previously developed and is partly located within FZ3a (surface water). The site is not at risk of fluvial / tidal flooding. Parts of the site allocation benefit from prior approval for conversion to dwelling houses (17/1977, 18/4228). Surface water enters the site via Oaklands Road and back gardens south of the site and surface water ponding is predicted on hard standing in the centre of the site during the 1 in 30 year pluvial event or greater. The majority of the ground coverage in the site is impermeable car parking or storage and the area is subject to ponding. Climate change will increase the extent of flooding, depth and velocity, but will not increase the maximum hazard of the flooding. Development should be prioritised on the eastern side of the site, due to the lower flood depths predicted. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; floor levels being 0.3m above the predicted 1 in 1000 year event flood depth at any point on site, flood plain compensation being provided for up to and including a 1 in 100 year event, flood resistant / resilient buildings being required, an FRA being required for basement developments, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2, in addition to consultation with Thames Water to confirm if the site has historically flooded, and if so, development must implement SUDS to reduce runoff to sewer and greenfield rates. The SFRA Level 2 identifies that the site can be made safe for development throughout its lifetime without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2). It could also reduce flood risk overall with appropriate surface water drainage and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes in the SFRA Level 2). Development can therefore be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test in principle. In the case of an application, a site specific flood risk assessment should demonstrate that the development can be safe for its lifetime in accordance with the SFRA level 2 requirements. In conclusion, the site passes the exceptions test in principle, however, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA.
Recommendation: Allocate for development

Site Allocation Ref: BSESA25	**Site Allocation Name:** Park Avenue Garage	
Delivery 19/20-28/29: 70	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 25% of the site is within flood zone 3a (surface water) in the 1 in 100 year event, evenly split between the 0-15cm, 15-30cm, 30-60cm and 60-90cm ranges 2% of the site in flood zone 3a surface water (1 in 30 year event) 97% in the 1 in 1000 year event No sewer flooding incidents No susceptibility to groundwater flooding No increased potential for elevated groundwater Not in a source protection zone Not in a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
This is a low density local employment site. The site benefits from good public transport access having a PTAL rating of 3/4 and being in walking distance to Willesden Green Station. The NPPF and London Plan support residential development on underutilised sites in areas of good public transport accessibility, such as this one. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site allocation benefits from planning permission (reference 17/5291) for residential development which covers the whole of the site allocation. The site is not at risk of fluvial / tidal flooding. The site is currently 100% impermeable, and surface water enters the site through Park Avenue in the west and back gardens and St Pauls Avenue in the east. Climate change will increase the extent and depth of the flooding, but it does not increase max velocity or hazard. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; floor levels of at least 0.3m above the predicted flood level for the 1 in 1000 year event at any point on site, flood plain compensation being provided for events up to a 1 in 100 year event, development should be located away from Park Avenue, flood resistant / resilient buildings required, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2.

The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); 2) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes of the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test in principle, however, in the case of an application, a site specific FRA would need to demonstrate this with reference to the Level 2 SFRA.

Recommendation: Allocate for development

Site Allocation Ref: BCSA16	**Site Allocation Name:** Site NW04 Wembley Masterplan

Delivery 19/20-28/29: 0	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 23% flood zone 3 surface water (1 in 100 year event), depths -majority 0-15cm range, small part in 15-30cm range. 2% in flood zone 3a surface water (1 in 30 year event), 82% in the 1 in 1000 year event No sewer flooding incidents. <25% susceptibility to ground water flooding (all of the site) No increased potential for elevated ground water Not in a source protection zone In a critical drainage area No risk of reservoir flooding		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within the Wembley Opportunity Area within the London Plan. It is also within the Wembley Growth Area, which is identified to meet a significant proportion of the borough's housing and employment need. The site is located in an area with excellent public transport accessibility levels. The NPPF and London Plan support intensified residential and commercial development on underutilised sites in areas of good public transport accessibility, such as this one. It has good access to local shops and services. The site's location on Olympic Way provides an opportunity to create a high quality development to act as a gateway to the stadium. Positive impacts are anticipated due to the delivery of a range of uses in an area with a good PTAL and good accessibility to infrastructure. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and is not at risk of fluvial / tidal flooding. However some of the site is located in FZ3a (surface water). Formerly a car park, the site is in meanwhile use as public realm. The ground coverage on the site is currently porous pavement. It is subject to controlled off-site surface water flows as part of the wider Wembley masterplan drainage strategy. Depths of water reach 0–30cm on the site during the 1% annual chance. Water enters the site from the south from Engineers Way, and climate change will increase the predicted flood depths and extent throughout the site, covering almost the entire site area.		

The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; floor levels must be 0.3m above the predicted flood level for the 1 in 1000 year event, flood plain compensation being provided for events up to a 1 in 100 year event, flood resistant buildings being required, basements and ground floor uses only be used for less vulnerable / water compatible uses, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable. Safe access / egress must be required as per the recommendations of the SFRA Level 2. The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2) and; 2) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes of the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test in principle, subject to a site specific flood risk assessment. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.
Recommendation: Allocate for development

Site Allocation Ref: BSESA8	**Site Allocation Name:** Hereford House & Exeter	
Delivery 19/20-28/29: 61	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable

Flood zone and other sources of flooding: 37% in flood zone 3a (surface water), the majority of which is within the 30-60cm range, and equal amounts in the 15-30cm and 60-90cm ranges 17% in flood zone 3a surface water (1 in 30 year extent) and 62% in the 1 in 1000 year extent Sewer flooding incidents (21-40) No susceptibility to groundwater flooding No increased potential for elevated groundwater Not in a source protection zone Not in a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:

Sustainability benefits outweigh flood risk? Yes

In the London Plan this site is within an Area for Regeneration, being in the top 20% most deprived areas. It is a Growth Area and the Council is leading on a 15-year programme which is about half way through. The Council's objective is to improve living conditions in South Kilburn by providing new facilities and high quality homes including 1,200 affordable homes for social rent for existing South Kilburn secure tenants, supported by homes for market sale. The funding model of the programme means failure to deliver one phase could prejudice the wider masterplan for the growth area.

The existing buildings are of poor design and construction creating poor housing conditions and potential for anti-social behaviour in communal spaces which cannot be remedied cost efficiently through refurbishment. The opportunity exists to provide better housing along sound urban design principles creating a human scale environment that integrates with the surrounding area and is more sympathetic in scale to the conservation area. It will be at a density that reflects the PTAL rating and reinforces the street hierarchy and setting of Carlton Vale in particular, subject to the Council being able to ensure Granville Road is reopened between this site and the Carlton and Granville Centres which subsequently will result in the existing Granville Open Space being developed for housing, this site will incorporate its replacement open space. This will provide a better quality open space with greater opportunity for sunlight penetration, overlooking/sense of security and due to its prominence more likely to be used by the surrounding population. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The site forms part of the South Kilburn Masterplan. The site is not at risk of fluvial / tidal flooding. The site is previously developed and partly falls into FZ3a (surface water) and as such the principal risk of flooding on the site relates to surface water. This is likely due to the site's excavation below the surrounding ground levels and the highway network. Overland flow pools around Exeter Court as the site is in a depression between Granville Road and Carlton Vale. Climate change will increase the predicted extent, depth, and velocity of flooding, but does not increase maximum hazard. The majority of the ground cover is impermeable and heavily urbanised. This can compound surface water flooding as the runoff rate is greater on impermeable grounds. In addition less water is able to drain away through infiltration. The

majority of predicted depths are within the 30-60cm range, with equal amounts in the 15-30m range and 60-90cm ranges. EA maps identify potential flood depths of up to 900mm on the site during the 1% annual chance. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; floor levels of 0.3m above the predicted flood level for the 1 in 1000 year event at any point on site, flood plain compensation being provided if necessary, flood resistant / resilient buildings being required, development of more vulnerable uses should be prioritised in the west of the site, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2. The site is also at high risk of sewer flooding - in addition to consultation with Thames Water to confirm if the site has historically flooded, if the site has historically flooded, development must implement SUDS to reduce runoff to sewer and greenfield rates.

The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); 2) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes of the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test in principle. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.

Recommendation: Allocate for development

Site Allocation Ref: BNSA8	**Site Allocation Name:** Queensbury Station Carpark	
Delivery 19/20-28/29: 36	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable

Flood zone and other sources of flooding: 71% flood zone 3 surface water (1 in 100 year event) with flood depths evenly split across the ranges from 15-30cm, 30-60cm, 60-90cm and 90-120cm 49% in flood zone 3 surface water (1 in 30 year event) and 100% in 1 in 1000 year event No sewer flooding incidents. No susceptibility to ground water flooding No potential for elevated ground water Not in a source protection zone Within a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:

Sustainability benefits outweigh flood risk? Yes

The site is located in an area with good public transport accessibility levels. The NPPF and London Plan support residential development on underutilised sites in areas of good public transport accessibility, such as this one. It has good access to local shops and services. Positive impacts are anticipated due to the delivery of housing in an area with a good PTAL and good accessibility to infrastructure. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. A reduction in the station car park could reduce car usage. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

Surface water ponding is predicted on the site during the 1 in 30-year pluvial event or greater moving closer towards the railway from the highway. For a 1 in 100 year event flood depths are evenly split across the ranges from 15-30cm, 30-60cm, 60-90cm and 90-120cm. Surface water is trapped against the railroad embankment and enters the site from the south and west. Climate change will increase the extent, depth, velocity and hazard of flooding. The area is almost wholly hardstanding, this can compound surface water flooding. Less water is able to drain away through infiltration, which increases the surface water flood risk in these areas. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; floor levels must be 0.3m above the predicted 1 in 1000 year event flood depth at any point on site, northern development being prioritised, flood resilient buildings being required, flood plain compensation must be provided for up to and including a 1 in 100 year event, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2.

The SFRA Level 2 identified that i) Development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); 2) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes of the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test in principle. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.
Recommendation: Allocate for development

Appendix 5 Sites with Over 20% Fluvial Zone 3 (including +70% climate change) subject to SFRA Level 2

<table>
<tr><td>Site Allocation Ref:
BCSA2</td><td colspan="2">Site Allocation Name: Stadium Retail Park and Fountain Studios (Fulton Quarter)</td></tr>
<tr><td>Delivery 19/20-28/29:
966</td><td>Delivery 29/30-40/41</td><td>Highest vulnerability of proposed use:
More Vulnerable</td></tr>
<tr><td colspan="2">Flood zone and other sources of flooding:
49% Flood Zone 2
Climate Change +70% 45% Zone 3

37% flood zone 3 surface water in the 1 in 100 year event with depths 0-90cm with the majority in the 30-60cm range.
24% flood zone 3a surface water in the 1 in 30 year event and 80% in the 1 in 1000 year event.
Sewer flooding incidents (1-20)
<25% susceptibility to ground water flooding (all of the site)
Increased potential for elevated ground water
Not in a source protection zone
In a critical drainage area
90% area at risk of reservoir flooding depths between 0 and 2 metres and speeds for 0-2m/s</td><td>Sequential Test:
Pass: It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.</td></tr>
<tr><td colspan="3">Exception Test:
Sustainability benefits outweigh flood risk? Yes
The site is within the Wembley Opportunity Area and should contribute a significant uplift in dwellings. The site is well provisioned with infrastructure, healthcare, schools and parks and sporting facilities. The site has a high PTAL rating and therefore benefits from good public transport links. The existing development is not in keeping with local character, has large parking facilities that promote use of the private car and is used at a low intensity given the area's high accessibility to public transport. It is creating a poor environment. Redevelopment can help improve air quality by being designed to modern sustainability standards to reduce energy usage and emissions, particularly from private transport. The redevelopment of the site also provides the opportunity to increase housing provision, including affordable housing,</td></tr>
</table>

whilst improving environmental performance in terms provision of green infrastructure on site, plus improving water management through incorporating other mitigation measures such as SUDS on a site which has very high levels of hard-surfacing and limited run-off attenuation currently. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet Brent population's required housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed, 71% is within fluvial Flood Zone 2.The site is within 50m of Wealdstone Brook, located north of the site. Climate change factors place the site at risk of fluvial flooding, with flooding from the Brook inundating the site from the north-east, with water flowing along Olympic Way and into the site. Approximately 45% of the site will be subject to Flood Zone 3 taking account of climate change +70%. The site is not in an area benefiting from flood defences. Sequentially, whilst the more vulnerable development should be preferably situated in Flood Zone 1, given its town centre location, the site is in any case likely to be less vulnerable commercial use at ground flood, with residential on uppers. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: any ground floor residential elements of proposed development being located outside of the Flood Zone 3a+cc extent in the western extent of the site, a flood emergency and evacuation plan being required, and site users signing up to the EA's Flood Warning Service.

The majority of the ground coverage in the site is impermeable as it is heavily urbanised and surface water ponding is predicted in the centre of the site during the 1 in 30-year pluvial event or greater. Water enters the site from the west along Wembley Park Drive and Empire Way. The centre of the site is a slight topographical low pint which results in pooling of water. Climate change will increase the flood extent, but not the velocity, hazard or maximum depth of flooding. As the site is topographically higher than the site to the north (College of North West London), runoff eventually flows on to the site towards the Wealdstone Brook. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point, floor level should be set to Flood Zone 3a + CC extent flood levels if predicted fluvial depths are higher, flood plain compensation being provided for events up to a 1 in 100 year event, and limiting site development to the western and southern areas of the site, if possible.

Safe access / egress must be required as per the recommendations of the SFRA Level 2, in addition to consultation with Thames Water to confirm if the site has historically flooded, and if so, development must implement SUDS to reduce runoff to sewer and greenfield rates. As the site is at risk of flooding from the Brent (Welsh Harp) Reservoir, emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan.

The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); 2) Mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); 3) the site could also reduce

flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes of the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test in principle. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.
Recommendation: Allocate for development

Site Allocation Ref: BCSA6	**Site Allocation Name:** Watkin Road	
Delivery 19/20-28/29: 692	**Delivery 29/30-40/41** 138	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 88% Flood Zone 2, 17% Flood Zone 3 and 0.4% Flood Zone 3b Climate Change +70%: 85% Zone 3 18% flood zone 3 surface water potential for depths of 0 – 90cm the majority in 30-60cm range (1 in 100 year event0 10% in flood zone 3 surface water in the 1 in 30 year event and 96% in the 1 in 1000 year event >25<50% susceptibility to ground water flooding (all of the site) Increased potential for elevated ground water Not in a source protection zone In a critical drainage area 100% area at risk of reservoir flooding with depths over 2 metres for most of the site		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing and industrial needs as there are insufficient alternative sites in fluvial zones 1 or 2.

Exception Test:

Sustainability benefits outweigh flood risk? Yes

The site is within the Wembley Opportunity Area within the London Plan. It is also within the Wembley Growth Area, which is identified to meet a significant proportion of the borough's housing and employment need. The site is located in an area with good public transport accessibility levels. The NPPF and London Plan support residential development on underutilised sites in areas of good public transport accessibility, such as this one. It has good access to local shops and services. Positive impacts are anticipated due to the delivery of housing and industrial in an area with a good PTAL and good accessibility to infrastructure. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing and industrial land targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

A small proportion of the site currently lies within Fluvial Flood Zone 3, with the majority in flood zone 2. The site is adjacent to Wealdstone Brook, and flooding originates from the Brook, inundating the site from the north. Flooding extent covers the northern region of the site and flows towards the centre. Taking account of the proposed residential use of the site, factoring in climate change of +70% a large part (85%) of the site would become flood zone 3 with only the south eastern and south western areas outside the flood extent. Depths and flow velocities are also higher under climate change. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: no developments in FZ3b extent (0.4% of the site), development being directed towards the southern extent of the site, finished floor levels being at least 0.3m above predicted flood levels and flood plain compensation being provided, flood resistance and resilience construction of buildings being required where flood levels are less than 0.3m and more than 0.3m respectively, flood emergency and evacuation plan.

Surface water ponding is predicted on Watkin Road during the 1 in 30-year pluvial event or greater. An overland flow path is observed along the surrounding road network, with the overland flow path towards the site coming from the east and west along Fulton Road. Potential depths of 0 – 90cm are on the site during the 1% annual chance, with the majority in the 30-60cm range. The site is at a topographical low point. Flood risk extent for the climate change scenario is greater, placing the majority of the site at risk of surface water flooding, although depths and flow velocities do not increase under climate change. The majority of the ground coverage in the site is impermeable. This can compound surface water flooding as the runoff rate is greater on impermeable grounds compared to permeable areas. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; developments outside of the fluvial flood zone 3a+cc extent must have finished floor levels of at least 0.3m above the predicted flood level for the 1 in 1000 year event, flood plain compensation being provided for events up to a 1 in 100 year event, and site development introducing SUDS to manage surface water runoff.

Safe access / egress must be required as per the recommendations of the SFRA Level 2. The site is at risk of reservoir breach flooding, from the Welsh Harp reservoir, therefore emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan. The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); 2) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); 3) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes of the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test in principle. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.
Recommendation: Allocate for development

Site Allocation Ref: BESA1	**Site Allocation Name:** Coombe Road	
Delivery 19/20-28/29: 79	**Delivery 29/30-40/41** 117	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 100% is within Fluvial Zone 2, 26% in Zone 3a, 100% in Zone 3 +70% climate change 0% flood zone 3 surface water (1 in 30 and 1 in 100 year events). 44% in the 1 in 1000 year event. No sewer flooding incidents. >25%<50% susceptibility to ground water flooding (all of the site) Potential for elevated ground water Not in a source protection zone Not in a critical drainage zone Risk of reservoir breach flooding from Welsh Harp reservoir with depths over 2m		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term industrial and housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
The site is located in an area with good public transport accessibility levels. The NPPF and London Plan support residential development on underutilised sites in areas of good public transport accessibility, such as this one. It has good access to local shops and services. Positive impacts are anticipated due to the delivery of housing in an area with a good PTAL and good accessibility to infrastructure. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The majority of the site lies within Fluvial Flood Zone 2 and is adjacent to the River Brent, with the river located to the west of the site. Predicted fluvial flooding inundates the site from the east, west and south for the 1 in 100 year event. Flooding from the west is directly from the River Brent. Flooding from the south follows an overland flow route across Blackbird Hill from the south. Flooding from the east is linked to the River Brent and the Canal Feeder from the Brent Reservoir (Welsh Harp). The flood risk extent for the climate change scenario is significantly greater, covering the entirety of the site. Flood depths are significantly higher, with a minimum flood depth of 0.3m at any point on site. Flow velocities are also higher under climate change. The site is it is effectively an island as it is surrounded by Zone 3. Taking account of the proposed residential use of the site, factoring in climate change of +70% all of the site would become flood zone 3. Indeed it all becomes Zone 3 when taking account of climate change +20%. On a sequential basis, development should be located away from the existing Zone 3. More vulnerable uses should be located in areas currently outside Zone 3. The site will need to re-provide the existing/ industrial/ commercial uses which will take up the majority of the ground floor and possibly some first floor. Taking account of this and climate change, the more vulnerable residential accommodation should be located in the first floor level or above. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: finished floor levels and flood resistant / resilient building requirements in line with 4.1.2 and 4.1.3 of the SFRA Level 2 Report, flood emergency and evacuation plan being required (including safe refuge area details), proposed developments being located at least 8m away from the River Brent if possible, site users being signed up to the EA's Flood Warning Service.

The site is not at risk of surface water flooding in the 1 in 30 and 1 in 100 year event, but is at risk of flooding in the 1 in 1000 year event. The main contributing overland flow path is via the Canal Feeder from the Brent Reservoir to the east of the site. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point. Floor level should be set to Flood Zone 3a + CC extent flood levels if predicted fluvial depths are higher, proposed developments should be located at least 5m away from the Canal Feeder from the Brent Reservoir, no dwelling basement developments should take place, a detailed drainage plan accounting for 100% of surface water generated from the site and

complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable. Safe access / egress must be required as per the recommendations of the SFRA Level 2. No dwelling basement development should take place at the site, and if basements are being considered onsite, a screening assessment must be provided. Emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan and development within 5m of the Canal Feeder should be avoided. The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); 2) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); 3) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes of the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test in principle. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.
Recommendation: Allocate for development

Site Allocation Ref: BSSA7	**Site Allocation Name:** Bridge Park & Unisys	
Delivery 19/20-28/29: 225	**Delivery 29/30-40/41** 280	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 100% in flood zone 2, 100% in flood zone 3a (fluvial) 16% in flood zone 3a (surface water) in the 1 in 100 year event, 4% in the 1 in 30 year event, 80% in the 1 in 1000 year event. No sewer flooding incidents >=25% <50% susceptibility to groundwater flooding (all of the site) Increased potential for elevated groundwater Not in a source protection zone In a critical drainage area		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2.

Whole site at risk of reservoir flooding with depths over 2m on the majority of the site, with the remainder 0.3-2m	

Exception Test:
Sustainability benefits outweigh flood risk? Yes
The site is within an Area for Regeneration within the new London Plan, being in the top 20% most deprived areas. The site is wholly brownfield. In its current state the site is of a poor environmental quality, with dated buildings and the long-term vacant Unisys buildings which on numerous occasions have been subject to anti-social behaviour such as extensive fly-tipping. It contrasts with the attractive environment created elsewhere in Stonebridge through modern development. Redevelopment would improve the environmental quality of the area and create an attractive gateway to the borough and Stonebridge. Comprehensive mixed-use development is needed to help facilitate a new leisure centre and to bring the Unisys buildings back in use. The development will meet an identified need for a new leisure centre and swimming pool in the south of the borough, as identified in the Council's Indoor Sports Facility Strategy. The Council does not own a site of sufficient size to provide such a facility in the south of the borough which is sequentially preferable and/or which is not designated open space. The site benefits from good public transport access with a PTAL rating of both 3 and 4. The NPPF and London Plan support residential development on underutilised sites in areas of good public transport accessibility, such as this one. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
100% of the site is within flood zone 2 and flood zone 3. The site is within 80m of the River Brent, with the river located west of the site. Flooding originates from the Brent, flowing across the North Circular and inundating the site from the west. The entire site is within Flood Zone 3a, leaving it at risk of flooding for a 1 in 100 year event. The flood risk extent for the climate change scenario is similar, covering the whole site. However, flow velocities and maximum flood depths are higher under climate change. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: protect functional floodplain and restrict development to essential infrastructure and water compatible in the 1 in 20 year extent if the Argenta House hydraulic model outputs are treated as Flood Zone 3b, updated site modelling may be required due to the fact that several sources of fluvial flood data exist for this site, meeting the requirements in sections 4.1.2, 4.1.3 and 4.1.4 of the SFRA Level 2 Report, develop a flood emergency and evacuation plan, and site users being signed up to the EA's flood warning service. Developments should be kept to the east of the site, where flood depths are less.

If a more vulnerable use development is desired within Flood Zones 3a, floor levels must be raised 0.3m above the predicted flood level of a fluvial Flood Zone 3a + CC and the 1 in 1000 year surface water event (whichever is higher). Less vulnerable use categories may be appropriate on lower floors, however, the development must consider safe refuge and / or access / egress as a key element, taking account of speed of inundation and create an evacuation plan for the development.

16% of the site is at risk of surface water flooding. Surface water enters the site from the A404, the southeast side of the site and pools north of the railway embankment. CC will increase the extent of the maximum depth, velocity and hazard of flooding onsite. The majority of the ground coverage on the site is impermeable surfacing, and surface water flood risk on the site is likely caused by ponding on these surfaces. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point. Floor level should be set to Flood Zone 3a + CC extent flood levels if predicted fluvial depths are higher, flood plain compensation must be provided for events up to a 1 in 100 year event, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2. No dwelling basement development should take place at the site, and if basements are being considered onsite, a screening assessment must be provided. Emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan.

The SFRA Level 2 identifies that i) development can be made partially safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); 2) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); 3) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes of the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made partially safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test in principle. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.
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Recommendation: Allocate for development

Site Allocation Ref: BCSA3	**Site Allocation Name:** Brook Avenue	
Delivery 19/20-28/29: 80	**Delivery 29/30-40/41** 370	**Highest vulnerability of proposed use**: More Vulnerable

Flood zone and other sources of flooding: 65% Flood Zone 2, 54% Flood Zone 3 and 5% Flood Zone 3b Climate Change +70%: 63% Zone 3 65% flood zone 3 surface water depths in excess of 120cm on 50% of the site in the 1 in 100 year event <25% susceptibility to ground water flooding (100% of the site) Increased potential for elevated ground water Not in a source protection zone In a critical drainage area 70% area at risk of reservoir flooding depths over 2 metres close to the brook and between 0.3 and 2 metres elsewhere.	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zone 1 and 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site is within the Wembley Opportunity Area within the London Plan. It is also within the Wembley Growth Area, which is identified to meet a significant proportion of the borough's housing and employment need. The site is located in an area with good public transport accessibility levels. The NPPF and London Plan support residential development on underutilised sites in areas of good public transport accessibility. It has good access to local shops and services. Positive impacts are anticipated due to the delivery of housing in an area with a good PTAL and good accessibility to infrastructure. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to reduce flood risk on site compared to existing properties and increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** A small amount of the site is within 3b, with the most significant proportion within Fluvial Flood Zone 3a, with the majority in flood zone 3. Some of the site is within Zone 1 and Zone 2. The site is adjacent to the Wealdstone Brook, and flooding would originate from the Brook, inundating the site from the south. Under the climate change scenario, the flooding extent covers a greater proportion of the site. Many of the existing residential properties are within flood zone 3 and in a 1:100 event will get flooded. New dwellings can replace them and be suitably designed to reflect the flood risk, reducing danger to occupants and property. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: no developments in FZ3b extent, development being directed to the north eastern area of the large part of the site allocation, finished floor level being at least 0.3m above predicted flood levels and flood plain compensation being provided, development taking place at least 8m away from Wealdstone Brook, flood resistance and resilience construction of buildings being required where flood levels are less than 0.3m and more than 0.3m respectively, and a flood emergency and evacuation plan.	

The site is also at risk of surface water flooding. An overland flow path is observed through the larger part of the site allocation from the north west along Forty Avenue. The smaller part of the site allocation is topographically higher than the immediate area and is at lower risk of surface water flooding. The Wealdstone Brook impacts surface water flooding at both sites and climate change increases flood extent for both sites, but not velocity, hazard or maximum depth of flooding. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point, floor levels should be set to flood zone 3a+cc extent flood levels if predicted fluvial depths are higher, flood plain compensation being provided for events up to a 1 in 100 year event, and site development introducing SUDS to manage surface water runoff.

Safe access / egress must be required as per the recommendations of the SFRA Level 2. There is also a risk of flooding from the Brent (Welsh Harp) Reservoir, and Emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan.

The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); 2) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); 3) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test in principle. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.

Recommendation: Allocate for development

Site Allocation Ref: BCSA11	**Site Allocation Name:** College of North West London	
Delivery 19/20-28/29: 155	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable

Flood zone and other sources of flooding: 79% Flood Zone 2, 17% Flood Zone 3 and 16% Flood Zone 3a Climate Change +70% 79% Zone 3 68% flood zone 3 surface water (1 in 100 year event), surface water depths in excess of 120cm on small part, majority is within 30-60cm and 60-90cm ranges 36% flood zone 3a surface water in 1 in 30 year event, 89% 1 in 1000 year event Sewer flooding incidents (1-20) <25% susceptibility to ground water flooding (all of the site) Increased potential for elevated ground water Not in a source protection zone In a critical drainage area 80% area at risk of reservoir flooding depths between 0 and 2 metres.	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2.

Exception Test:

Sustainability benefits outweigh flood risk? Yes

The site is within the Wembley Opportunity Area within the London Plan. It is also within the Wembley Growth Area, which is identified to meet a significant proportion of the borough's housing and employment need. The site is located in an area with excellent public transport accessibility levels. The NPPF and London Plan support residential development on underutilised sites in areas of good public transport accessibility, such as this one. It has good access to local shops and services. The site is likely to be surplus to the college's requirements as part of a process of consolidation of better facilities on another site within Wembley Park. The site's location on Olympic Way provides an opportunity to create a high quality development to act as a gateway from Wembley Park Station to the stadium. Positive impacts are anticipated due to the delivery of housing in an area with a good PTAL and good accessibility to infrastructure. New development can help improve air quality by increasing tree planting, being designed to modern sustainability standards to reduce energy usage and emissions. The redevelopment of the site also provides the opportunity to increase permeability and incorporate other mitigation measures such as SUDS. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet London Plan housing targets

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The majority of the site lies within Fluvial Flood Zone 2, with about 17% in Flood Zone 3 currently, including and adjacent to the Wealdstone Brook channel. A small part to the site, principally to the west is located within Zone 1. The Wealdstone Brook flows from west to east through the northern half of the site. Flooding from the Wealdstone Brook inundates the site either side of the Brook. Flooding is restricted to the immediate area either side of the Wealdstone Brook for the 1 in 100 year (Flood Zone 3a) event. The flood risk extent for the climate change scenario is greater, with flooding predicted to impact a majority of the site. Flow velocities and maximum flood depths are also higher under climate change. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime

across the site without increasing flood risk elsewhere. This includes: no developments in FZ3b extent, development being located south of Wealdstone Brook and outside of the 1 in 100 year extent (flood zone 3a), developments within the flood zone 3a + cc extent requiring flood plain compensation and finished floor levels at least 0.3m above predicted flood levels, flood emergency and evacuation plan being required, and users being signed up to the EA's flood warning service.

The site is also at risk of surface water flooding. Water enters the site from the Wealdstone Brook, which flows through the site. Water also enters the site from the east (along Olympic Way), and from the south (the Stadium Retail Park and Fountain Studios site). Climate Change will extensively increase the extent, depth, velocity and hazard of flooding. Surface water ponding is predicted on the eastern portion of the site during the 1 in 30-year pluvial event or greater. Potential depths in excess of 120cm are identified on the site during the 1% annual chance. This is however within the river channel. Elsewhere on-site the majority is within 30-60cm and 60-90cm ranges. The building is surrounded by hardstanding which can compound surface water flooding as the runoff rate is greater on impermeable grounds compared to permeable areas. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point, floor levels should be set to flood zone 3a+cc extent flood levels if predicted fluvial depths are higher, flood plain compensation must be provided, resistance and resilience construction of developments being required where flood levels are less than 0.3m and more than 0.3m respectively, development by the northern boundary of the site being avoided if possible.

Safe access / egress must be required as per the recommendations of the SFRA Level 2, in addition to consultation with Thames Water to confirm if the site has historically flooded, and if so, development must implement SUDS to reduce runoff to sewer and greenfield rates. As the site is at risk of reservoir breach flooding, emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan.

The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); 2) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); 3) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes of the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test in principle. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.

Recommendation: Allocate for development

Site Allocation Ref: BSSA6	**Site Allocation Name:** Argenta House & Wembley Point	
Delivery 19/20-28/29: 569	**Delivery 29/30-40/41** 0	**Highest vulnerability of proposed use**: More Vulnerable
Flood zone and other sources of flooding: 100% in flood zone 2, 99% in flood zone 3a (fluvial), 72% in flood zone 3b (fluvial) 36% in flood zone 3a (surface water) in the 1 in 100 year event, the majority (approximately 60%) of which is in the 15-30cm range, with some areas adjacent to the Brook within the >120cm range, and smaller areas within the 30-60cm range. 20% in the 1 in 30 year event, 70% in the 1 in 1000 year event (surface water flood zone 3) Sewer flooding incidents (1-20) >=25% <50% susceptibility to groundwater flooding (all of the site) Increased potential for elevated groundwater Not in a source protection zone In a critical drainage area Whole site is at risk of reservoir breach, with the majority of the site with depths over 2m and the remainder 0.3-2m		**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** In its current state the site is of a poor environmental quality, with dated buildings. Redevelopment would improve the environmental quality of the area, help reduce flood risk and create an attractive gateway to the borough and Stonebridge. The Wealdstone Brook is not achieving good status as required by the EU Water Framework Directive. Development on this site could facilitate naturalisation of the Wealdstone Brook, delivering objectives in the Thames River Basin Management Plan and Brent River Corridor Improvement Plan, and improving water quality. The site benefits from good public transport access being adjacent Stonebridge Park Station and having a PTAL rating of 4. The NPPF and London Plan support residential development on underutilised sites in areas of good public transport accessibility, such as this one. Although the majority of the site is within flood zone 3b and therefore not suitable for development other than water compatible uses, land within flood zone 3a could be developed to deliver benefits to the wider community. In conclusion, alternative sites would not bring the regenerative benefits and are insufficient to provide the capacity to meet Brent population's required housing targets.		

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The site already benefits from permissions at both Argenta House and Wembley Point (18/4847 and 18/3125 respectively). 100% of the site is within flood zone 2, while 99% of the site (excluding a small area on the south-western edge) is within FZ3a (fluvial). 72% of the site is within FZ3b (fluvial).The River Brent and its tributary, Wembley Brook, flow through the site. The River Brent flows from the north and the Wembley brook flows from the east. The point at which the Wembley Brook flows into the River Brent is at the site. Flooding originates from both of the watercourses, almost inundating the entire site for the 1 in 100 year scenario (Flood Zone 3a). The flood risk extent for the climate change scenario is greater, covering the whole site. Flow velocities are also higher under climate change.

The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: protect functional floodplain and restrict development to Essential Infrastructure and Water Compatible in the 1 in 20 year extent if the Argenta House hydraulic model outputs are treated as Flood Zone 3b, no new developments in Flood Zone 3b extent, keep developments towards the south / south east of the site where max predicted flood depths are less than 2.5m, if a more vulnerable use is desired within flood zones 3a, floor levels must be raised 0.3m above the predicted flood level of a fluvial flood zone 3a +cc and the 1 in 1000 year surface water event (whichever is higher), updated site modelling may be required (flood data accuracy is uncertain), meeting the requirements of the SFRA Level 2 Report sections 4.1.2, 4.1.3, and 4.1.4 for further requirements, develop and flood emergency and evacuation plan for the site, and site users signing up to the EA's flood warning service.

Approximately 36% of the site is also at risk of surface water flooding. The majority (approximately 60%) of this is within the 15-30cm range, spread throughout various parts of the existing car ark of the site. Smaller areas within this are in the 30-60cm range. Surface water enters the site from the Wembley Brook in the south, the River Brent in the east and Point Place Road in the north/west. CC will increase the extent of the maximum depth, velocity and hazard of flooding onsite. This is likely due to ponding due to run off from buildings and impermeable surfacing, as the existing site lacks soft landscaping. Potential depths of up to 1.2m are identified on land surrounding the Brook during the 1% annual chance. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point, floor levels should be set to flood zone 3a+cc extent flood levels if predicted fluvial depths are higher, development near the River Brent and Wembley Brook, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2, in addition to consultation with Thames Water to confirm if the site has historically flooded, and if so, development must implement SUDS to reduce runoff to sewer and greenfield rates. As the site is at risk of reservoir breach flooding, emergency planning officers must be consulted to create a reservoir failure emergency and

evacuation plan. No self-contained basement developments, and if basements are being considered on site, a screening assessment must be provided. The SFRA Level 2 identifies that i) development can be made partially safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); 2) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); 3) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes of the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made partially safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test in principle. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.
Recommendation: Allocate for development

Appendix 6 Intensification Corridors Sequential and Exception Test Assessment

Intensification Corridors within Flood Zone 1 and outside Surface Water Flood Zone 3

Policy Ref	Intensification Corridor Name
BD2	41-685 Kenton Road Corridor (except 327-383)
BD2	Edgware Road (South) Corridor
BD2	High Road, Willesden Corridor
BD2	Neasden Lane, Crispin Close, Berkeley Court Corridor
BD2	Foxholt Gardens and Hillside Corridor
BD2	Cromwell Court and 412 Ealing Road Corridor
BD2	70 - 167 Harrow Road and 92 - 176 Harrow Road Corridor
BD2	Wembley Sephardi Synagogue and 48 - 54 Forty Avenue Corridor

Intensification Corridors with a small element of surface water (under 20%) within Flood Zone 3

Policy Ref: BD2	**Intensification Corridor Name:** Fryent Way Corridor
Highest vulnerability of proposed use: More Vulnerable	

Flood zone and other sources of flooding: 1% of flood zone 3 surface water with most in the 0-15cm range and small amount in the 15-30cm range. Sewer flooding incidents. No susceptibility to groundwater flooding No increased potential for elevated groundwater Not in a source protection zone Not in a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The site has a PTAL rating of 3, and therefore has fairly good access to public transport. The corridor is adjacent to Kingsbury town centre boundary and therefore has access to a range of facilities. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. Redevelopment could help to improve air quality by being designed to modern sustainability standards which reduce energy usage and emissions. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and currently includes large plots with significant parking including garages. The existing risk of surface water flooding extends from the highway and only encompasses a small part of the site. Development on this site could be safe for its lifetime by either directing development away from the areas at risk of surface water flooding if possible or that flood risk is reduced overall by ensuring that features such as green roofs and storage tanks are provided and appropriate floor levels are included. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.	
Recommendation: Identify as an intensification corridor	

Policy Ref: BD2	**Intensification Corridor Name:** Forty Lane, Blackbird Hill and Neasden Lane North Corridor excluding area near River Brent and Brent Feeder
Highest vulnerability of proposed use: More Vulnerable	

Flood zone and other sources of flooding: 1% in flood zone 3a surface water, equal elements in the 15-30cm range and 30-60cm range Majority of the site is >=25% < 50% susceptibility to groundwater flooding, the rest at <25% susceptibility to groundwater flooding No increased potential for elevated groundwater Half of the site is within a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** Majority of corridor within PTAL 3, with the western most end within PTAL 4. Some sections are within PTAL 2. Eastern end backs onto Neasden town centre, with the western end being within close proximity to Wembley Park town centre. Close proximity to a number of parks, including the River Brent park, Welsh Harp, and Fryent Country Park. Therefore, the corridor is well provided with amenities, and well positioned to come forward with limited parking, reducing the reliance upon personal vehicles which is prevalent within this part of the borough. This will assist in improving air quality, in addition to the delivery of modern sustainability standards. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and currently consists of a mix of building types, including semi-detached dwellings, commercial uses, garages, access roads, blocks of flats and some detached homes on large plots. The whole corridor has been identified as being potentially suitable for redevelopment, while a smaller part of it (Acadia Court and 311-329 Neasden Lane and Area) have been identified as being potentially suitable for backland development. A very small proportion of the site is at risk of surface water flooding, with equal amounts in the 15-30cm and 30-60cm ranges. The area at risk of flooding extends from the rear gardens of dwellings on Birchen Grove towards an access road to the rear of 25-51 Blackbird Hill, which is hardsurfaced. The surface water flooding is likely due to run off from buildings, lack of permeable surfacing and ponding caused by this. Redevelopment of this part of the corridor through adequate surface water management plan/ design could be safe for its lifetime, by locating buildings outside flood areas and above flood heights and reduce flood risk overall by increasing permeability and soft landscaping and introducing elements such as green roofs and storage tanks to reduce off-site surface water flows from current levels. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.	
Recommendation: Identify as an intensification corridor	

Policy Ref: BD2	**Intensification Corridor Name:** Dudden Hill Lane, Willesden High Road Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 1% flood zone 3 surface water, mostly in the 15-30cm range, but also with some small areas in the 0-15cm range, 60-90cm and 30-60cm range Sewer flooding incidents No susceptibility to groundwater flooding No increased potential for elevated groundwater Within a critical drainage area Not within a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2.

Exception Test:

Sustainability benefits outweigh flood risk? Yes

Corridor almost entirely within PTAL 5, with a small section within PTAL 4. This is associated with its close proximity to Dollis Hill LUL station and numerous bus routes. Also immediately adjacent to Willesden town centre at its eastern edge. Therefore well served by both amenities and public transport, in addition to local employment sites. Redevelopment will therefore assist in reducing dependence of personal vehicles through limiting parking as far as practicable, helping to improve the local environment and air quality. Redevelopment will also bring living conditions up to modern standards, as many of these units are likely to have been inappropriately sub-divided in the past. Permitted development conversions from retail to residential are also prevalent within the corridor, reducing the coherence and standard of their design which will be significantly improved upon redevelopment. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The site is previously developed and currently consists of terraced housing and some commercial units. The whole corridor has been identified as being potentially suitable for redevelopment. A very small percentage of the total corridor is at risk of surface water flooding (1%). The main area of surface water flood risk relates to an area to the rear of 261 - 265 High Road with a maximum depth of 60-90cm and is likely due to hardsurfacing in rear gardens and surface water ponding caused by run off from buildings. It is considered that development could be safe for its lifetime by increasing the amount of permeable surfacing on site and utilising features such as green roofs and storage tanks and locating buildings/ amenity space away from areas of potential flooding. Other areas at risk of flooding in the corridor are extensions of flood risk from the highway which marginally fall into the site boundary. These depths are generally between 0-15cm and could likely be mitigated by redevelopment incorporating permeable surfacing. Other flooding risks are small. A site specific flood risk assessment

should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Bridgewater Road Corridor

Highest vulnerability of proposed use: More Vulnerable

Flood zone and other sources of flooding:	**Sequential Test:**
1% in flood zone 3 surface water with the majority in the 15-30cm range and some small areas in the 0-15cm and 30-60cm range Sewer flooding incidents Over half of the site is at <25% susceptibility to groundwater flooding, less than half of the site is at no susceptibility to groundwater flooding No increased potential for elevated groundwater In a critical drainage area Not in a source protection zone	**Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:

Sustainability benefits outweigh flood risk? Yes

PTAL ranges from 2-4, with greater access in the south due to closer proximity to Alperton LUL station. Also within reasonable proximity to Ealing Road town centre. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. This is significant as car dependency is high in this part of the borough. Corridor also adjacent to One Tree Hill park and a number of employment sites. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The site is previously developed and currently primarily consists of two storey terraced housing with some semi-detached units. The site has been identified as being potentially suitable for redevelopment. A small proportion of the site (1%) is at risk of surface water flooding, and relates to areas at the rear (and some at the side) of the existing properties. The areas at risk of flooding are likely due to impermeable

hardsurfacing to the rear of these properties and run off from the existing buildings. The majority of the flood risk area has depths of up to 15-30cm with smaller areas within the 0-15cm and 30-60cm ranges. Redevelopment of the site would be likely to change which areas are at risk of flooding, as the current areas at risk of flooding sit at the rear elevations of the footprints of the existing dwellings. It is considered that redevelopment could improve the existing situation and be safe for its lifetime by ensuring that impermeable surfacing is replaced with permeable surfacing and soft landscaping, in addition to incorporating elements such as green roofs and storage tanks. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Dudden Hill Lane Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 1% in flood zone 3 surface water with equal amounts in the 1-15cm range and 15-30cm range Sewer flooding incidents No susceptibility to groundwater flooding No increased potential for elevated groundwater Less than half of the site is within a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** PTAL ranges from 2-4, with greater PTAL in the northern section due to closer proximity of Neasden LUL station. North section is within close proximity to Neasden town centre. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. This is significant as car dependency is high in this part of the borough. Site also within close proximity to Gladstone Park. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.	

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and consists of a self-storage warehouse with parking and garages, commercial uses, a petrol station, semi-detached units, blocks of flats and detached dwellings. A very small proportion of the site is at risk of surface water flooding, within the central area of the corridor, extending from the highway, with depths ranging from 0-15cm to 15-30cm. It is considered that new development could be located away from these areas at risk of flooding. Alternatively, it is considered that redevelopment could improve the existing situation and be safe for its lifetime by ensuring that impermeable surfacing is replaced with permeable surfacing and soft landscaping, in addition to incorporating elements such as green roofs and storage tanks and incorporating appropriate floor heights. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Craven Park Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 1% in flood zone 3 surface water in the 15-30cm range. Sewer flooding incidents <25% susceptibility to groundwater flooding No increased potential for elevated groundwater Not in a source protection zone In a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** PTAL ranges from 4-5 due to proximity to Harlesden LUL station and a number of bus routes. Within reasonable distance of Harlesden town centre. Also served by a number of Neighbourhood Parades. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. This is significant as car dependency is high	

in this part of the borough. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and consists of a church, 3 storey detached homes of a low density and a 3-6storey block of flats. A very small element of the Evangelical Church site is at risk of surface water flooding with depths of 15-30cm and is located on area of hardsurfacing, with the flood risk extending from the site to the south. It is considered that redevelopment could be located away from this very small flood risk area, and that redevelopment could improve the existing situation and be safe for its lifetime by ensuring that impermeable surfacing is replaced with permeable surfacing and soft landscaping, in addition to incorporating elements such as green roofs and storage tanks and if necessary incorporating appropriate floor heights. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Kingsbury Road Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 2% of flood zone 3 surface water with equal amounts in the 15-30cm and 30-60cm ranges, and small areas in the 0-15cm range. Sewer flooding incidents No susceptibility to groundwater flooding No increased potential for elevated groundwater Not in a source protection zone In a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The PTAL of the site varies from 2 - 3 with fairly good access to public transport, but is located adjacent to Kingsbury town centre and therefore has access to a range of facilities. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. Redevelopment could help to improve air quality by being designed to modern sustainability standards which reduce energy	

usage and emissions.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and currently consists of a garage with significant hardstanding, a Kwik Fit, blocks of flats and two storey detached dwellings. The western element of the corridor has an element of surface water flood risk to the north with maximum depths of between 30-60cm, but primarily between 15-30cm. The other element of surface water flooding is located to the south of the existing Kwik Fit garage with maximum depths of up to 30-60cm. This is likely due to changes in ground levels and run off from the highway / impermeably surfacing. Development on this site could be safe for its lifetime by either directing development away from the areas at risk of surface water flooding and ensuring that if possible flood risk is reduced overall by ensuring that features such as green roofs and storage tanks are provided and appropriate floor levels are included. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Harrow Road Sudbury Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 2% of flood zone 3 surface water with equal amounts in the 0-15cm and 15-30cm ranges, and a smaller amount in the 30-60cm range. Sewer flooding incidents Part of the site has <25% susceptibility to groundwater flooding, majority of the site is at no risk No increased potential for elevated groundwater Not in a source protection zone Majority of the site is within a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The majority of the corridor has good access to public transport, within PTAL 3. A smaller part of the site has a PTAL rating of 2. However,	

the eastern part of the corridor is located within close proximity of Sudbury town centre, and the western part of the site is located adjacent to the boundary with another borough and therefore may be served by facilities within that borough. The whole corridor is well served by different open space typologies, including that of Sudbury Hill Playing Fields, Butler's Green, and Vale Farm. This includes associated sports infrastructure. Redevelopment could help to improve air quality by being designed to modern sustainability standards which reduce energy usage and emissions.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed. The corridor currently includes semi-detached dwellings, a builders' yard, blocks of flats and garages. Many of the homes are sited on large plots. Two small pockets of surface water flood risk are located on the eastern part of the corridor, however, these have a maximum depth of 30cm and only cover a small area. It is considered that redevelopment at this end of the corridor could ensure that development is safe for its lifetime and does not increase flood risk elsewhere by increasing permeability of surfaces on the site and putting in place measures such as green roofs and storage tanks to reduce surface water flooding, particularly as redevelopment or backland development could result in the loss of garden space. The western end of the corridor also has elements of surface water flood risk. Surface water flood risk exists at the front of existing properties and ranges from 0-30cm and is likely due to impermeable hardsurfacing to the front of the properties. An area of surface water flood risk also exists in some of the rear gardens adjacent to Sudbury Hill playing field to a maximum depth of 60cm. This is likely caused by changes in ground levels. Development on this site could be safe for its lifetime by either directing the garden land and backland development away from the areas at risk of surface water flooding (and ensuring that if possible, flood risk is reduced overall by ensuring that features such as green roofs and storage tanks are provided and appropriate floor levels are included), or in the case of redevelopment, ensuring that impermeable surfacing is replaced with permeable surfacing and features such as green roofs and storage tanks are included. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Kenbrook Forty Avenue Corridor
Highest vulnerability of proposed use: More Vulnerable	

Flood zone and other sources of flooding: 2% in flood zone 3a surface water with equal amounts in the 0-15cm range and 30-60cm ranges Sewer flooding incidents <25% susceptibility to groundwater flooding Increased potential for elevated groundwater Not in a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:

Sustainability benefits outweigh flood risk? Yes

Site has a PTAL of 3-4 being within close proximity to Wembley Park LUL station. Also within close proximity to Wembley Park town centre. Site set on significant brownfield land which is currently underutilised with some single storey aspects. Redevelopment would therefore assist in meeting housing targets. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The site is previously developed and consists of a nursing home within a large plot. A very small part of the site is at risk of surface water flooding with equal amounts in the 0-15cm range and 15-30cm ranges. The area of flood risk runs from the highway and likely relates to ponding due to impermeable surfaces and run off from surrounding buildings. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Honeypot Lane Corridor

Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 3% of flood zone 3 surface water with most in the 15-30cm range and some small areas in the 0-15cm range. Sewer flooding incidents No susceptibility to groundwater flooding No increased potential for elevated groundwater Not in a source protection zone Not in a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The majority of the site has a PTAL rating of 3, and therefore had fairly good access to public transport. The corridor is adjacent to Kingsbury town centre boundary to the south and therefore has access to a range of facilities. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. Redevelopment could help to improve air quality by being designed to modern sustainability standards which reduce energy usage and emissions. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and currently consists of terraced / semi-detached 2 storey units. The existing risk of surface water flooding is scattered throughout the corridor, predominantly within the rear gardens of some of the dwellings, and is likely due to impermeable hardsurfacing. Development on this site could be safe for its lifetime by either directing development away from the areas at risk of surface water flooding if possible or that flood risk is reduced overall by ensuring that features such as green roofs and storage tanks are provided and appropriate floor levels are included. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.	
Recommendation: Identify as an intensification corridor	

Policy Ref: BD2	**Intensification Corridor Name:** Colindale Edgware Road Corridor
Highest vulnerability of proposed use: More Vulnerable	

Flood zone and other sources of flooding: 3% of flood zone 3 surface water with most in the 0-15cm range and a small amount in the 15-30cm range. Sewer flooding incidents <25% susceptibility to groundwater flooding No increased potential for elevated groundwater Not in a source protection zone More than half in a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:

Sustainability benefits outweigh flood risk? Yes

The northern and central parts of the corridor have a PTAL of 3/4, while the southern part of the corridor has a PTAL of 2. However, the southern part of the corridor is adjacent to Colindale town centre. The central part of the corridor is in close proximity to Colindale and Burnt Oak town centres, while the northern part of the corridor is adjacent to Burnt Oak town centre. The sites therefore have access to a range of facilities. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. Redevelopment could help to improve air quality by being designed to modern sustainability standards which reduce energy usage and emissions.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The site is previously developed and currently consists of a three storey block (the northern part of the corridor), a mixed use block in the centre, and a convenience store and bar with significant hardstanding (southern part of the corridor). Only the northern part of the corridor is at risk of surface water flooding, with most in the 0-15cm range and a small amount in the 15-30cm range. The surface water flood risk relates to an area of hardstanding to the rear of the building. Development on this site could be safe for its lifetime by either directing backland development away from the areas at risk of surface water flooding (and ensuring that if possible, flood risk is reduced overall by ensuring that features such as green roofs and storage tanks are provided and appropriate floor levels are included), or in the case of redevelopment, ensuring that impermeable surfacing is replaced with permeable surfacing and features such as green roofs and storage tanks are included. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Wembley Park Drive Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 3% in flood zone 3a surface water, with the majority in the 15-30cm range and smaller amounts in the 30-60cm, 60-90cm and 0-15cm ranges Less than half of the site has <25% susceptibility to groundwater flooding, the majority of the site has no susceptibility No potential for elevated groundwater In a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** Corridor predominantly within 4/5 PTAL, with some small elements within 3. This is associated with their close proximity to both Wembley Park LUL station in the North, and Wembley Central LUL station in the south. It is also close to both Wembley Park Town Centres, and Wembley Town Centres respectively, being immediately adjacent at each end of the corridor. Therefore the corridor is well served by local amenities and transport, reducing the likely requirement for transit by personal vehicles. The corridor is also within close proximity to King Edward VII park, Wembley and Park Lane Primary Schools, and local GP surgeries. Redevelopment of these sites will improve sustainability standards, reduce local parking provision, improve design standards and associate crime, and generally improve the sustainability of the area whilst maximising land utility, helping to meet the Councils housing target. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed. The corridor consists of terraced / semi-detached / detached homes and some garages, in addition to some commercial units and a doctors surgery. Some of the dwellings are set on large plots. The southern part of the corridor is not subject to any areas of surface water flood risk. The areas at risk of surface water flooding are scattered around the northern parts of the corridor, with the majority of the depths being between 15-30cm but some very small elements being up to 60-90cm. The majority of this surface water flood risk appears to relate to areas at the rear of existing properties and is likely due to hardsurfacing to the rear of these properties. Development on this site could be safe for its lifetime by either directing the garden land and backland development away from the areas at risk of surface water flooding (and ensuring that if possible, flood risk is reduced overall by ensuring that features such as green roofs and storage tanks are provided and appropriate floor levels are included), or in the case of redevelopment, ensuring that impermeable surfacing is replaced with permeable surfacing and features such as green roofs and storage tanks are included. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce	

flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Ealing Road (North) Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 3% flood zone 3 surface water with the majority in the 15-30cm range and a small amount in the 0-15cm and 30-60cm ranges Sewer flooding incidents Over half of the site is at <25% susceptibility to groundwater flooding, less than half of the site is at >=25% < 50% susceptibility to groundwater flooding No increased potential for elevated groundwater Not within a source protection zone Over half of the site is within a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** Northern portion primarily within PTAL 5 being within close proximity to Wembley Central LUL station, with southern portion within PTAL 3-4 being close to Alperton LUL station. Each is adjacent to Ealing Road town centre. Therefore each has good access to public transport and a range of local amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and currently consists of a mix of semi-detached houses, a community centre, blocks of flats (some with backland) and garages. Some of the semi-detached units have relatively large amounts of land. All parts of the corridor have been identified	

as being potentially suitable for redevelopment. A small proportion of the site is at risk of surface water flooding and this is located in a few areas throughout the corridor. Part of the area to the rear of Neeld Court has been identified as being at risk of surface water flooding to maximum depths of 15-30cm. This is likely due to ponding due to impermeable surfaces and surface water run-off. It is considered that development could be safe for its lifetime by either being located outside of this area of flood risk (and incorporating measures such as green roofs to reduce run off rate, thereby improving the existing situation) or new development resulting in increased permeable paving or soft landscaping to reduce surface water flood risk. The other areas at risk of surface water flooding are located at the north of the corridor and appear to be located in back gardens, with most depths within the 15-30cm range, some depths within the 30-60cm range and some very small elements in the 0-15cm range. It is considered that development could be safe for its lifetime by either being located away from these areas of flood risk, or incorporating measures such as floor levels/ surfaces above flood levels and could also improve the existing situation by providing increase permeable surface, in addition to incorporating elements such as green roofs and storage tanks to control surface water run-off. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Bridgewater Court, Fernwood Avenue, Barnham Close, Harrow Road Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 3% in flood zone 3 surface water with the majority in the 15-30cm range, a smaller area in the 30-60cm range, and lesser areas in the 0-15cm range. Sewer flooding incidents No susceptibility to groundwater flooding No increased potential for elevated groundwater Less than half of the site is in a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
Corridor PTAL ranges from 2-5, but predominantly within 4-5 due to proximity to Sudbury Town LUL station and a number of bus routes. Also within close proximity to Sudbury town centre. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. This is significant as car dependency is high in this part of the borough. The corridor also adjacent to Barham Park. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and currently consists of a mix of semi-detached houses on large plots, warehouses, some access roads and blocks of flats. The northern part of the corridor contains the two areas at risk of surface water flooding. One of these relates to the hardsurfaced highway on Colyton Close and is likely due to impermeable surfacing and surface water run-off from buildings. The depth of this is mostly within the 15-30cm range with smaller elements in the 0-15cm range. It is considered that redevelopment could improve the existing situation and be safe for its lifetime by ensuring that impermeable surfacing is replaced with permeable surfacing and soft landscaping, in addition to incorporating elements such as green roofs and storage tanks, locating buildings away from areas of risk and incorporating appropriate floor heights. The other pocket is located to the rear of Marnham Court and relates to an area of hardsurfaced car parking, which then extends into the rear gardens behind this. The majority of this has a depth of 15-30cm, with a smaller element in the 30-60cm range and even smaller elements in the 0-15cm range. Again, it is considered that redevelopment could improve the existing situation and be safe for its lifetime by ensuring that impermeable surfacing is replaced with permeable surfacing and soft landscaping, in addition to incorporating elements such as green roofs and storage tanks, locating buildings away from areas of risk and incorporating appropriate floor heights. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** 231-255 and 248-298 Harrow Road Corridor
Highest vulnerability of proposed use: More Vulnerable	

Flood zone and other sources of flooding: 4% flood zone 3 surface water with the majority in the 30-60cm range, a smaller amount in the 15-30cm range and an even smaller amount in the 0-15cm range. Sewer flooding incidents Over half of the site is at <25% susceptibility to groundwater flooding, less than half of the site is at >=25% < 50% susceptibility to groundwater flooding No increased potential for elevated groundwater Not within a source protection zone Within a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** Corridor within PTAL 3. Immediately adjacent to Wembley town centre. Therefore has good access to public transport and a range of amenities. Redevelopment will assist in reducing parking and associated vehicle dependence, helping improve a number of inter-related issues, namely health and climate crisis. Redevelopment will also increase sustainability standards up to modern requirements, helping improve local air quality for which there remains a problem. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and currently consists of blocks of flats, semi-detached and terraced units with some commercial / a doctors' surgery. The whole corridor has been identified as being potentially suitable for redevelopment, with some elements of it being identified as being potentially suitable for upward extensions. Only an area adjacent to Neeld Court is identified as being at risk of surface water flooding with the majority in the 30-60cm range and some elements in the 0-15cm and 15-30cm ranges. It is likely that this relates to an area of hardsurfacing. Development can be safe for its lifetime by replacing hardsurfacing with permeable surfacing, soft landscaping, and incorporating elements such as green roofs and storage tanks to control run off rates. Additionally, development could be constructed to minimum finished floor levels and with flood-resilient materials. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.	
Recommendation: Identify as an intensification corridor	

Policy Ref: BD2	**Intensification Corridor Name:** 82-140 The Mall Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 5% of flood zone 3 surface water with most in the 15-30cm range, a small amount in the 0-15cm range and in the 30-60cm range. Sewer flooding incidents. Majority of site at <25% susceptibility to groundwater flooding, a small element of the site is of no susceptibility of groundwater flooding. No increased potential for elevated groundwater Not in a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The majority of the site has a PTAL rating of 3, and therefore had fairly good access to public transport. The site is located close to Kingsbury town centre and therefore has access to a range of facilities. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. Redevelopment could help to improve air quality by being designed to modern sustainability standards which reduce energy usage and emissions. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and consists of 2/3 storey semi-detached dwellings. The areas at risk of surface water flooding extends from the highway via an electricity substation and partly located at rear of properties, which may be due to impermeable hardsurfacing / patios in rear gardens. Development on this site could be safe for its lifetime by either directing development away from the areas at risk of surface water flooding if possible or that flood risk is reduced overall by ensuring that features such as green roofs and storage tanks are provided and appropriate floor levels are included. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.	
Recommendation: Identify as an intensification corridor	

Policy Ref: BD2	**Intensification Corridor Name:** Empire Way Corridor

Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 5% in flood zone 3 surface water, with equal amounts within the 15-30cm and 30-60cm ranges, a small amount in the >1.2m range, and lesser amounts in the 60-90cm and 90cm-1.2m ranges. Sewer flooding incidents Part of the site has <25% susceptibility to groundwater flooding, more than half the site is at no risk No increased potential for elevated groundwater Not in a source protection zone Within a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** Corridor entirely within PTAL 4, being within close proximity to Wembley Park LUL station. It is also immediately adjacent to Wembley Park Town Centre, providing a range of amenities. Current development includes significant parking which would not be re-provided going forward. In addition to this, redevelopment would be delivered to modern sustainability standards, helping improve air quality, and reaping other associated benefits. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed. The existing site consists of a number of blocks of flats varying in height, some residential gardens and backlands with hardsurfacing. The two small areas at risk of surface water flooding are located to the rears of two existing blocks and relate to areas of hardsurfacing. It is likely that this is caused by impermeable surfacing and run off from the existing buildings. The area to the rear of Imperial Court (at the north of the corridor) at risk of surface water flooding has a maximum potential flood depth of over 1.2m, however, this appears to relate to changes in ground levels due to access to underground parking. The area at risk of surface water flooding to the south of the site is mostly in the 15-30cm and 30-60cm range and appears to be due to hardsurfacing. Development on this site could be safe for its lifetime by either directing the garden land and backland development away from the areas at risk of surface water flooding (and ensuring that if possible, flood risk is reduced overall by ensuring that features such as green roofs and storage tanks are provided and appropriate floor levels are included), or in the case of redevelopment, ensuring that impermeable surfacing is replaced with permeable surfacing and features such as green roofs and storage tanks are included. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.	

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Harrow Road (East) Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 5% in flood zone 3 surface water with the majority in the 15-30cm range, and lesser amounts in the 0-15cm and 30-60cm ranges. Sewer flooding incidents No susceptibility to groundwater flooding No increased potential for elevated groundwater In a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** The PTAL rating of the site varies from 1b -6a, due to the length of the corridor**.** The corridor is within reasonable distance from Wembley town centre and is located in very close proximity to Barnham Park, therefore having access to a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards, will help improve a number of inter-related issues including health and climate crisis. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and currently consists of a number of uses, including semi-detached housing (some within large plots), garages, a pub with significant hardstanding, blocks of flats and a Royal Mail sorting office. Some parts of the corridor towards the east have been identified as being at risk of surface water flooding. The part of the corridor which includes 628 Harrow Road has elements of flood risk is due to two access roads within the site, with flood risk depths of 0-15cm and 15-30cm. This is likely due to surface water run-off from existing buildings on site and ponding on the highways due to impermeable surfacing. Development could improve the existing situation and ensuring that flood risk is not increased elsewhere by incorporating features such as green roofs and storage tanks to control / reduce surface water run-off, reducing risk of flooding elsewhere on the site. The other parts of the site at risk of flooding are to the side of the Royal Mail sorting office and adjacent to the Coplands care home, both of which are areas of hardsurfacing adjacent to the footprint of the existing	

buildings. The majority of the area of flood risk adjacent to Coplands care home has a maximum depth of 15-30cm, and some small areas of 0-15cm. The area of hardsurfacing adjacent to the sorting office has a maximum flood risk depth of 30-60cm with some areas of 15-30cm depth. It is considered that redevelopment could improve the existing situation and be safe for its lifetime by ensuring that impermeable surfacing is replaced with permeable surfacing and soft landscaping, in addition to incorporating elements such as green roofs and storage tanks, locating buildings out of areas that can flood and increasing floor heights. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Willesden Lane (North)
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 5% in flood zone 3a surface water, the majority of which is within the 15-30cm range, with smaller elements in the 30-60cm and 0-15cm ranges Sewer flooding incidents No susceptibility to groundwater flooding No increased potential for elevated groundwater Not in a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** PTAL is 3-4, with western most portion within 4 due to proximity to Willesden LUL station. Western portion also immediately adjacent to Willesden Green town centre. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes**	

The site is previously developed and consists of a mix of buildings, including blocks of flats, garages, detached homes, areas of hardstanding and terraced homes. The areas at risk of surface water flooding are scattered throughout the site and generally relate to areas of hardsurfacing, mostly within the 15-30cm range, with smaller elements in the 30-60cm and 0-15cm depth ranges. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Site at The Mall & Kenton Road Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 7% flood zone 3 surface water with most in the 15-30cm range, a small amount in the 0-15cm range, and an even smaller amount in the 30-60cm range. Sewer flooding incidents Part of the site is of <25% susceptibility to groundwater flooding, over half of the site has no susceptibility to groundwater flooding No increased potential for elevated groundwater Not in a critical drainage area Not within a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** Corridor predominantly within PTAL 3, with small a portion in 4. Is immediately adjacent to Kingsbury town centre, and within close proximity to a number of parks and sporting facilities, including Fryent Country Park. The units also include significant parking. Redevelopment would seek to reduce this as far as practicable, helping reduce the prevalence of personal vehicles, which is the predominant mode of transport within this part of the borough. Kenton Road in particular would benefit from soft landscaping and greening improvements which it currently lacks, making it a harsh environment. Implications of redevelopment upon air quality are also noted, including the delivery of modern	

sustainability standards. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and currently consists of 3 storey blocks with significant parking to the rear, a petrol station, a hotel, ambulance station and a church. The site has been identified as being potentially suitable for upward extensions, backland development and redevelopment. Two parts of the site are at risk of surface water flooding. The pocket of flood risk to the rear of the ambulance station is within the 15-30cm range and is likely due to run off from buildings and impermeable hardsurfacing. Development on this part of the site could be safe for its lifetime by directing development away from this particular area of flood risk or through redevelopment ensuring that flood risk is reduced overall by increasing permeability and incorporating features such as green roofs and storage tanks. The other area at risk of flooding extends from the highway o the fronts of existing buildings and down an access road and is likely due to impermeable surfacing on the highway and run off from buildings. The majority of this is within the 15-30cm depth range with elements in the 0-15cm and 30-60cm range. It is considered that development could be made safe for its lifetime by providing permeable surfacing, utilising features such as green roofs and storage tanks, and ensuring that development does not take place within areas at risk of flooding. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Willesden Lane (South) Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 8% flood zone 3 surface water, mostly in the 15-30cm range and with some areas within the 0-15cm and 30-60cm ranges. Sewer flooding incidents No susceptibility to groundwater flooding No increased potential for elevated groundwater Not in a critical drainage area Not within a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
Corridor predominantly within PTAL 3, with a small section within 4. Also within close proximity to Kilburn town centre. Therefore, the site is well provided for in terms of transport and amenities, helping the site come forward with significantly reduced parking upon existing. Existing buildings provide more urban environment, with limited private amenity/ usable communal amenity for residents. Redevelopment will improve design standards to reduce crime, and deliver modern sustainability standards. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and currently consists of blocks of flats and has been identified as being potentially suitable for redevelopment. Areas at risk of surface water flooding are scattered throughout the corridor with the majority in the 15-30cm range and smaller elements in the 0-15cm and 30-60cm range. This likely relates to areas of hardsurfacing and lower ground levels than the surrounding area / highway. It is considered that development could be safe for its lifetime through either being located away from the areas of flood risk, or a combination of increased permeable surfacing, changes to ground levels to reduce risk of ponding, and incorporating elements such as green roofs and storage tanks. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	1-6 Smallburgh Mansions – 74 Watford Road Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 10% flood zone 3 surface water with most in 15-30cm range, a smaller amount in the 0-15cm range, and an even smaller amount in the 30-60cm range. Sewer flooding incidents No susceptibility to groundwater flooding No increased potential for elevated groundwater Within a critical drainage area Not within a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
The corridor has good access to public transport, with a PTAL of 2-5 (primarily 3). It is also located immediately adjacent to Sudbury town centre. Therefore it has immediate access to a range of amenities and public transport, enabling development to come forward with reduced parking upon existing, helping to improve a number of inter-related issues, namely health and climate crisis. The corridor is well served by different open space typologies, including that of Butler's Green and Vale Farm. This includes associated sports infrastructure. Redevelopment could help to improve air quality by being designed to modern sustainability standards which reduce energy usage and emissions. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and currently consists of semi-detached homes and a small 3 storey block. The site has been identified as potentially suitable for redevelopment. 10% of the site is at risk of surface water flooding, with the majority in the 15-30cm range and some elements within the 0-15cm and 30-60cm ranges. The surface water flood risk appears to relate to run off from the highway towards the residential units' front gardens, likely due to impermeable surfacing. Development on this site could be safe for its lifetime through either being located away from this area of flood risk. Alternatively, redevelopment could see an increase in the amount of permeable surfacing on site and could also incorporate elements such as green roofs and storage tanks. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Sattavis Gam Patidar Centre, Forty Avenue
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 16% in flood zone 3a surface water Evenly split between ranges 0-15cm, 15-30cm, 30-60cm and 60-90cm. Sewer flooding incidents <25% susceptibility to groundwater flooding No increased potential for elevated groundwater	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Not in a critical drainage area Not in a source protection zone	

Exception Test:
Sustainability benefits outweigh flood risk? Yes
Site has a PTAL of 3-4 being within close proximity to Wembley Park LUL station. Also within close proximity to Wembley Park town centre. Site set on significant brownfield land which is currently underutilised with sprawling surface level parking. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and consists of a large modern commercial venue for weddings / events with significant hardstanding. The element of the site at risk of surface water flooding is to the north of the footprint of the existing building and relates to an area of hardsurfacing, which is likely impermeable. It is likely that the surface water flood risk relates to run off from buildings and impermeable surfacing. The maximum depths are in the 30-60 and 60-90cm ranges, with smaller amounts in the 15-30cm and 0-15cm ranges. Based on the small area being at risk of flooding, it is considered that future development on this site could be directed towards areas of lower risk of flooding, or flood risk managed and reduced through SUDS (e.g. through improving permeability) and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Brunel Court, High Street, Harlesden Corridor
Highest vulnerability of proposed use: More Vulnerable	

Flood zone and other sources of flooding: 18% flood zone 3 surface water, mostly in the 0-15cm range and with a smaller amount in the 15-30cm range Sewer flooding incidents No susceptibility to groundwater flooding No increased potential for elevated ground surface water Not within a critical drainage area Not within a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** Corridor PTAL ranges from 3-5, primarily within 4. Also within close proximity to Harlesden town centre. Therefore site has good access to local amenities and public transport. This will assist redevelopment in reducing parking over existing substantially. The site is also at a prominent location on a busy junction between Harrow Road and Scrubs Lane. In addition to reducing dependence of private vehicles, redevelopment will bring sustainability up to modern standards, improving air quality. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and currently consists of blocks of flats. It has the potential for redevelopment, upward extensions and backland development. However, it is noted that there are areas at risk of surface water flooding, with the majority of the depths being between 0-15cm and some elements being within the 15-30cm range. The areas of flood risk relate to hardsufacing which is likely impermeable and therefore at risk of ponding. Development can be safe for its lifetime by replacing hardsurfacing with permeable surfacing, soft landscaping, and incorporating elements such as green roofs and storage tanks to control run off rates. Additionally, development could be constructed to minimum finished floor levels and with flood-resilient materials. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.	
Recommendation: Identify as an intensification corridor	

Intensification Corridors with Small Proportions (under 20%) of Fluvial Zone 3

Policy Ref: BD2	**Intensification Corridor Name:** 41-67 Harrow Road Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 1% in flood zone 2 (fluvial) Sewer flooding incidents >=25% < 50% susceptibility to groundwater flooding No increased potential for elevated groundwater In a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** PTAL is 2-4, but predominantly 4, with site served by local Neighbourhood Parades. The area set to experience significant growth. Current development on site does not effectively mitigate against harsh, road dominated environment which would be better considered by modern design standards. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. This is significant as car dependency is high in this part of the borough. Also immediately adjacent to Tokyngton Recreation Ground, with sports facilities nearby. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and currently consists of residential buildings. A very small part of the southern edge of the site is located within FZ2. Taking account of 70% climate change, a similar area will be in FZ3 to what is currently in FZ2. The south-eastern edge of site is also at reservoir breach risk, the majority of which is below 0.3m depth and with speeds of below 0.5ms, but with element in between 0.3 and 2m and a speed of between 0.5 and 2m/s. This part of the site is already developed with a dwelling. A sequential approach to development should be taken, with more vulnerable uses being located way from areas of flood risk, with floor heights Fluvial Z3 +70% climate change and if this cannot be achieved properties should incorporate flood resistance/ resilience features. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion,	

there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** 46-90 Harrow Road and 1a-1b Wyld Way Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 5% in flood zone 2 (fluvial), 1% in flood zone 3a (fluvial) Sewer flooding incidents >=25% < 50% susceptibility to groundwater flooding A small part of the site has increased potential for elevated groundwater In a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** PTAL is 2-4, but predominantly 4, with site served by local Neighbourhood Parades. The area set to experience significant growth. Current development on site does not effectively mitigate against harsh, road dominated environment which would be better considered by modern design standards. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. This is significant as car dependency is high in this part of the borough. Also immediately adjacent to Tokyngton Recreation Ground, with sports facilities nearby. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and currently consists of mixed use buildings with ground floor commercial units and semi-detached residential dwellings. It has been identified as being potentially suitable for redevelopment. The south-eastern edge of the site is located within FZ2, with an even smaller part of the site being located within FZ3a (fluvial). Taking into account 25% climate change, the south eastern edge of the site will be in FZ3 and at 70% climate change, a similar area will be in FZ3 to what is currently in FZ2. The south-eastern edge of site is also at reservoir breach risk, the majority of which is below 0.3m depth and with speeds of below 0.5ms, but with element in	

between 0.3 and 2m and a speed of between 0.5 and 2m/s. This part of the site is already developed, with commercial uses on the ground floor and residential uses above. Due the small amount of the site at risk of flooding, it is considered that a sequential approach to development should be taken, with more vulnerable uses being located way from areas of flood risk. It is likely that replacement less vulnerable commercial uses will be required at ground floor level. In this scenario, floor heights should be above Fluvial Z3 +35% + 30cm and if this cannot be achieved properties should incorporate flood resistance/ resilience features. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.
Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Ainslie Court Ealing Road Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 6% in flood zone 2 (fluvial) 5% in flood zone 3 surface water in the 15-30cm range Sewer flooding incidents >=25% < 50% susceptibility to groundwater flooding Increased potential for elevated groundwater for over half of the site Critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
PTAL ranges from 3-5, and served by a number of neighbourhood parades. Also adjacent to significant amount of employment land. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. Site also in close proximity to a park and associated sporting facilities. The Grand Union Canal is also nearby which provides green/ blue infrastructure and serves as a sustainable transport route. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and currently consists of a mix of detached and semi-detached units, and blocks of flats. The site has been identified as potentially suitable for redevelopment. The southernmost tip is within FZ2, and part has the potential to become FZ3 when taking account of +25% climate change. Taking account of climate change +70%, the majority of zone 2 becomes zone 3, and parts of zone 3 also extend out further than zone 2. The southernmost tip of the site is also at reservoir breach risk, with depths below 0.3m and a speed of below 0.5m/s. This part of the site is already occupied by residential dwellings. Should the site be redeveloped, if possible, sequentially more vulnerable uses should be located away from this part of the site. Alternatively, development will be required to be made safe for its lifetime by measures such as appropriate finished floor levels, flood-resilient materials and an emergency action plan being agreed with the Council's emergency planning team. A small part of the site is at risk of surface water flooding, to the rear of Ainslie Court with a depth of 15-30cm. This relates to a carpark with hardsurfacing which is likely impermeable. Surface Water flood risk could be reduced through redevelopment by introducing better surface water management, by incorporating measures such as permeable surfacing, soft landscaping, green roofs and storage tanks and if necessary appropriate floor heights. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** 327-383 Kenton Road Corridor
Highest vulnerability of proposed use: More Vulnerable	

Flood zone and other sources of flooding: 15% in flood zone 2 (fluvial) 7% of flood zone 3 surface water with most in the 15-30cm and some in the 30-60cm range Sewer flooding incidents. <25% susceptibility to groundwater flooding Small area with increased potential for elevated groundwater Not in a source protection zone Critical drainage area	**Sequential Test:** **Pass**: It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:

Sustainability benefits outweigh flood risk? Yes

PTAL is 2-3, but primarily 3. The site is within reasonable distance to Kenton town centre. It therefore has good access to public transport and a range of local amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. The site backs onto Woodcock Park. It is also adjacent to the LB Harrow, and therefore may be served by facilities outside of the borough. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The site is already developed and consists of mixed use parades, blocks of flats and semi-detached units. The western tip is within fluvial flood zone 2, while the rest of the site is in FZ1. Over half of the area within flood zone 2 already contains buildings (primarily commercial uses on the ground floor with residential above, but with some ground floor residential units on Woodgrange Avenue) and this area has potential to become flood zone 3 when taking into account of the +25% climate change. Taking into account +70% climate change, nearly all of zone 2 becomes zone 3. Should redevelopment take place, sequentially more vulnerable uses should be directed away from this area. The same part of the site is also at risk of surface water flooding, although around the footprint of the existing buildings. The majority of this has a depth of 30-60cm with some in the 15-30cm range, and very small elements in the 0-15cm range. The area at risk of surface water flooding of hardsurfacing around the existing buildings, extending from the highway. This is likely due to ponding due to run off from existing buildings and impermeable surfaces. Flood risk can be managed and reduced through locating buildings away from areas at risk, incorporation of SUDS (e.g. through improving permeability), features such as green roofs and storage tanks, and / or appropriate finished floor levels above the predicted maximum surface water flood levels, amongst other measures. Other flooding risks are small. A site specific flood risk assessment should demonstrate that the development can be safe for its lifetime. Overall development of this site is likely to reduce flood risk on site and elsewhere through better management of surface water and reducing run-off from the site. In conclusion, there is a good probability of this site passing the exceptions test, but this would need to be confirmed by a site specific flood risk assessment.

Recommendation: Identify as an intensification corridor

Intensification Corridors with Over 20% Surface Water Zone 3 subject to SFRA Level 2

Policy Ref: BD2	**Intensification Corridor Name:** Springhill House, Willesden Lane Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 22% in flood zone 3a surface water (1 in 100 year event) the majority in 15-30cm and with a slightly smaller amount in 0-15cm range. 11% of the site in flood zone 3a surface water in the 1 in 30 year event and 34% in the 1 in 1000 year event No sewer flooding incidents No susceptibility to groundwater flooding No increased potential for elevated groundwater Not in a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** PTAL is 3-4 due to proximity to Willesden LUL station. Also immediately adjacent to Willesden Green town centre. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and consists of a block of flats. The site is not at risk of fluvial / tidal flooding. However, 22% of the site is at risk of surface water flooding during the 1 in 100 year event, the majority of which is within the 15-30cm range (with slightly smaller amounts in the 0-15cm range). Surface water enters the site via back gardens to the south of the site and rom Willesden Lane (only in the 1 in 1000 year event). Climate change will increase the extent and velocity of flooding, but it does not increase maximum depth or hazard. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; floor levels must be 0.3m above the predicted 1 in 1000 year event flood depth at any point on site, flood plain compensation being provided for events up to and including a 1 in 1000 year event, flood resistant buildings being required, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the	

London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable. Safe access / egress must be required as per the recommendations of the SFRA Level 2. The SFRA Level 2 identified that the site can be made safe for development throughout its lifetime without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2). It could also reduce flood risk overall with appropriate surface water drainage and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes in the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.
Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** 84-98 Wembley Park Drive Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 18% in flood zone 3a surface water in the 1 in 100 year event, with the majority in the 15-30cm range, a smaller amount in the 30-60cm range, and some small elements in the 0-15cm range 11% of the site in flood zone 3a surface water in the in 30 year event and 375 in the 1 in 1000 year event Sewer flooding incidents (1-20) <25% susceptibility to groundwater flooding (all of the site) No potential for elevated groundwater In a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:

Sustainability benefits outweigh flood risk? Yes

Corridor within PTAL 5. This is associated with its close proximity to Wembley Park LUL station. It is also close to Wembley Park Town Centre. Therefore the corridor is well served by local amenities and transport, reducing the likely requirement for transit by personal vehicles. The corridor is also within close proximity to King Edward VII park, Wembley and Park Lane Primary Schools, and local GP surgeries. Redevelopment of these sites will improve sustainability standards, reduce local parking provision, improve design standards and associated crime, and generally improve the sustainability of the area whilst maximising land utility, helping to meet the Councils housing target.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The site is previously developed and is not at risk of fluvial / tidal flooding. The existing site consists of detached / semi-detached homes on large plots with mostly paved from gardens and large rear gardens. Approximately 18% of the site is at risk of surface water flooding in the 1 in 100 year flood event, the majority within the 15-30cm range but with potential maximum depths of 60cm. Water enters the properties' back gardens through an access road off of Wembley Park Drive, on the eastern side of the site. Climate change will increase the predicted extent, depths, velocities and hazard of the site. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; floor levels being 0.3m above the predicted 1 in 1000 year event flood depth at any point onsite, flood plain compensation being provided for events up to and including a 1 in 1000 year event, development focussing on the western side of the site if possible, flood resistant / resilient buildings being required, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2, in addition to consultation with Thames Water to confirm if the site has historically flooded, and if so, development must implement SUDS to reduce runoff to sewer and greenfield rates.

The SFRA Level 2 identifies that the site can be made safe for development throughout its lifetime without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2). It could also reduce flood risk overall with appropriate surface water drainage and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes in the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** 438-444 Neasden Lane and Pitt House Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 33% in flood zone 3 surface water in the 1 in 100 year event, with equal amounts in the 15-30cm range and 0-15cm range. 0% change of surface water flooding in the 1 in 30 year event and 67% in the 1 in 1000 year event. No sewer flooding incidents >=25% < 50% susceptibility to groundwater flooding (all of the site) No increased potential for elevated groundwater Not within a source protection zone Within a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** PTAL is 3. Also in close proximity to Neasden town centre. Close proximity to a number of parks, including the River Brent park, Welsh Harp, and Fryent Country Park. Therefore the corridor is well provided with amenities, and well positioned to come forward with limited parking, reducing the reliance upon personal vehicles which is prevalent within this part of the borough. This will assist in improving air quality, in addition to the delivery of modern sustainability standards. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and currently consists of a large plot with 2 storey terrace style blocks with communal garden and four terraced units of similar design on large plots. The site has been identified as potentially suitable for redevelopment. No fluvial / tidal risk is predicted at this site. However, in the 1 in 100 year event, 33% of the site is at risk of surface water flooding with equal amounts in the 15-30cm range, 0-15cm range. Surface water flow enters the site via Press Road and Aboyne Road. Climate change will increase the extent of flooding, but does not increase the maximum depth, velocity or hazard. As the site is identified for redevelopment and due to the amount of the site identified as being at risk of surface water flooding, it would not be possible to locate new development only in areas at risk of no surface water flooding, however, redevelopment of the site would also likely change which areas of the site would be at risk of flooding due to the footprints of the buildings changing and removal of impermeable hardsurfacing. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere.	

This includes: floor levels must be 0.3m above the predicted 1 in 1000 year event flood depth at any point onsite, flood plain compensation must be provided for up to and including a 1 in 1000 year event, flood resistant buildings being required, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2. As the site is at risk of flooding from the Brent (Welsh Harp) Reservoir, Emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan. In addition, as the site is at risk of groundwater flooding, if basements are to be considered on site, a screening assessment must be provided, and no basement dwellings should be developed on site.

The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); 2) it could reduce flood risk overall with appropriate surface water drainage and flood storage compensation measures implemented (see Mitigation – Surface Water Drainage and Mitigation – Flood Risk Requirements Box in the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** 1 Forty Close & Meeting Room Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 100% in flood zone 2 (fluvial), 5% in flood zone 3a (fluvial), 5% in flood zone 3b (fluvial) 76% in flood zone 3 surface water (1 in 100 year event), flood depths are 50% in the 60-90cm range, with the remainder split evenly within the ranges 30-60 and 15-30cm ranges. 5% in 1 in 30 year event and 100% in 1 in 1000 year event (surface water flood zone 3) Sewer flooding incidents (1-20)	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

<25% susceptibility to groundwater flooding (all of the site) No increased potential for elevated groundwater In a critical drainage area Not in a source protection zone Risk of flooding from Welsh Harp Reservoir	

Exception Test:

Sustainability benefits outweigh flood risk? Yes

Site has a PTAL of 3 being within close proximity to Wembley Park LUL station. Also within close proximity to Wembley Park town centre. Therefore has good access to transport and a range of amenities. Improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes

The sites are previously developed and currently consist of a large bungalow and place of worship next to Wealdstone Brook. Both of the sites are adjacent to Wealdstone Brook. The whole site is in FZ2 The Flood Zone 3a extent covers a small area in the north eastern part of the east site. The Flood Zone 3a extent covers the eastern border of the west site. The flood risk extent for the climate change scenario is much greater. The flooding extent covers the whole site area for both sites, excluding a small part of the east site in the north. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: no developments in flood zone 3b extent, development should be located towards the north western area of the east site and towards the south of the west site, finished floor levels must be at least 0.3m above predicted flood levels and flood plain compensation provided, flood resistance and resilience construction of buildings is required where flood levels are less than 0.3m and more than 0.3m respectively, flood emergency and evacuation plans for both sites.

A significant proportion of the site (76%) is also at risk of surface water flooding, with flood depths 50% in the 60-90cm range, with the remainder split evenly within the ranges 30-60 and 15-30cm ranges. Surface water enters the east site from the Wealdstone Brook in the northeast and from the south and west from Forty Close. Surface water inundates the west site from the Wealdstone Brook from the east. CC will increase the extent of the max depth, velocity and hazard of flooding. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: Developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point, floor level should be set to Flood Zone 3a + CC extent flood levels if predicted fluvial depths are higher, flood plain compensation must be provided, site development should introduce SUDS to manage surface water runoff.

Safe access / egress must be required as per the recommendations of the SFRA Level 2. As the site is at risk of flooding from the Brent (Welsh Harp) Reservoir, Emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan. The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); ii) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements), iii) it could reduce flood risk overall with appropriate surface water drainage and flood storage compensation measures implemented (see Mitigation – Surface Water Drainage and Mitigation – Flood Risk Requirements Box in the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.
Recommendation: Identify as an intensification corridor

Intensification Corridors with Over 20% Fluvial Zone 3 (including +70% climate change) subject to SFRA Level 2

Policy Ref: BD2	**Intensification Corridor Name:** 53-63 Forty Avenue, Perrin Grange, the City Learning Centre and Brook House and 58-64 Forty Avenue Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 40% in flood zone 2 (fluvial) 32% in flood zone 3 surface water (1 in 100 year event) with flood depths evenly split across the ranges from 0-15 up to >120cm 18% in flood zone 3 surface water (1 in 30 year event) and 73% in the 1 in 1000 year event Sewer flooding incidents (1-20) >25% <50% susceptibility to groundwater flooding (all of the site) No increased potential for elevated groundwater Risk of reservoir breach flooding In a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** Site has a PTAL of 3 being within close proximity to Wembley Park LUL station. Also within close proximity to Wembley Park town centre. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The sites are previously developed and currently consist of detached homes on large grounds, block of flats with parking and a school. The site is within 50m of the Wealdstone Brook, with the river located north east of the site. 31% of the site is located within FZ2. At 70% climate change, 29% of the site would be within FZ3 and climate change factors place the site at risk of fluvial flooding, with fluvial flooding inundating the site from the north, with water flowing across Carlton Avenue East and along Forty Avenue to the east. The site is not in an area benefitting from flood defences. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: development being directed	

towards the western half of the site where maximum flood depths are lower, finished floor level being at least 0.3m above predicted flood levels, a flood emergency ad evacuation plan, and site users being signed up to the EA's flood warning service.

32% of the site is also at risk of surface water flooding in the 1 in 100 year event, flood depths are evenly split across the ranges from 0-15 up to >120cm. Water enters the back gardens of houses 53-63 Forty Avenue (southwest of the site) through the gap between houses on Hollycroft Avenue from Carlton Avenue of the car park in the northeast of the site. The rear gardens on the site largely consist of soft landscaping, but areas to the front of the dwellings are hardsurfaced and the land surrounding the Learning Centre is also hardsurfaced. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; developments within the 1 in 1000 year surface water extent requiring finished floor levels of at least 0.3m above the predicted flood depths at that point, flood level should be set to flood one 3a+cc extent food levels if predicted fluvial depths are higher, and meeting the requirements of 4.2.1, 4.2.2 and 4.2.3 of the SFRA Level 2 report.

Safe access / egress must be required as per the recommendations of the SFRA Level 2, in addition to consultation with Thames Water to confirm if the site has historically flooded, and if so, development must implement SUDS to reduce runoff to sewer and greenfield rates. 16%of the site at risk of reservoir breach flooding, the depths are between 0 and up to 2 metres with flow below 0.5 m/s. Emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan.

The SFRA Level 2 identifies that i) Development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2);ii) Mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); iii) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes of the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Pargraves Court Forty Avenue Corridor
Highest vulnerability of proposed use: More Vulnerable	

Flood zone and other sources of flooding: 93% in flood zone 2 (fluvial) 49% in flood zone 3 surface water (1 in 100 year event) with the majority in the 30-60cm range and a slightly smaller area in the 15-30cm range. 0% in 1 in 30 year event and 99% in 1 in 1000 year event for flood zone 3 surface water Sewer flooding incidents (1-20) >25% <50% susceptibility to groundwater flooding (all of the site) More than half of the site has increased potential for elevated groundwater In a critical drainage area Not in a source protection zone Risk of reservoir breach flooding	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** Site has a PTAL of 3-4 being within close proximity to Wembley Park LUL station. Also within close proximity to Wembley Park town centre. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and currently consists of a block of flats, with residential accommodation incorporating bedrooms at ground floor with parking land to the rear. The site is adjacent to the Wealdstone Brook. The flooding originates from the Brook, inundating the site from the south. The site is not at risk of flooding for the 1 in 100 year event, while the majority of the site falls within Flood Zone 2. The flood risk extent for the climate change scenario is much greater. The Flood Zone 3a extent covers almost the entire site are, excluding a very small part of it in its northern side. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: development should be directed towards the northern area of the site, finished floor level being at least 0.3m above predicted flood levels and flood plain compensation being required, flood resistance and resilience construction of buildings being required where flood levels are less than 0.3m and more than 0.3m respectively, and a flood emergency and evacuation plan. About half of the site is at risk of surface water flooding in the 1 in 100 year event. Surface water enters the site from Brook Avenue in the south and the A4088 in the west. CC will increase the extent, depth, velocity and hazard of flooding onsite. The SFRA Level 2 identifies a	

number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point, flood levels should be set to flood zone 3a+cc extent flood levels if predicted fluvial depths are higher, flood resilient buildings, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2. As the site is at risk of reservoir breach flooding, emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan.

The SFRA Level 2 identifies that 1) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); 2) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); 3) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes of the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Esso Filling Station Ealing Road Corridor
Highest vulnerability of proposed use: Less Vulnerable	
Flood zone and other sources of flooding: 2% in flood zone 3, 48% in flood zone 2 (fluvial) Sewer flooding incidents >=25% < 50% susceptibility to groundwater flooding Increased potential for elevated groundwater Not in a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term industrial needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Not in a source protection zone 50% site at risk of reservoir breach	
Exception Test: Not applicable	
Recommendation: Identify as an intensification corridor	

Policy Ref: BD2	**Intensification Corridor Name:** Century House and Taveners Court Forty Avenue Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 62% in flood zone 2 (fluvial), 1% in flood zone 3a (fluvial) 17% in flood zone 3 surface water (100 year event) with the majority in the 30-60cm range, a smaller area in the 15-30cm range, and a very small area in the 0-15cm range. 1% of the site in 30 year surface water, 87% of the site in 1000 year surface water Sewer flooding incidents (1-20) < 25% susceptibility to groundwater flooding (100% of the site) More than half of the site has increased potential for elevated groundwater In a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
Site has a PTAL of 3-4 being within close proximity to Wembley Park LUL station. Also within close proximity to Wembley Park town centre. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and currently consists of flats. It comprises blocks of flats with residential flats with bedrooms on the ground floor. Over half of the site is in FZ2, with a small part of the site being within FZ3a (fluvial), to the south, with approximate 1 in 100 year flood depths of 0.1m. The site is located to the north of the Wealdstone Brook, with the flooding originating from the Brook, inundating the site from the south. The flood risk extent for climate change is greater, covering more than half of the site area, and flood depths and flow velocities being higher under climate change. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: the development being directed to the northern area of the site, finished floor level being at least 0.3m above predicted flood levels and flood plain compensation being required, flood resistance and resilience construction of buildings being required where flood levels are less than 0.3m and more than 0.3m respectively, and a flood emergency ad evacuation plan.

The site is also at risk of surface water flooding. Within the 1 in 100 year event, 17% of the site is at risk of surface water flooding. 15% of the site is also at risk of surface water flooding, with the majority in the 30-60cm range, a smaller area in the 15-30cm range and an even smaller area in the 0-15cm range. The greatest depths are located near the highway (with the flood risk extending from the highway onto the site), with flooding occurring on front landscaping and the hardsurfaced carpark to the rear. Water enters the site in the southwest from the A4008 and the intersection of the A4008 and Elmstead Avenue. Climate change will increase the predicted extent, depths, velocities and hazard of the site. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point, floor level should be set to Flood Zone 3a + CC extent flood levels if predicted fluvial depths are higher, flood plain compensation being provided for events up to and including a 1 in 1000 year event, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2, in addition to consultation with Thames Water to confirm if the site has historically flooded, and if so, development must implement SUDS to reduce runoff to sewer and greenfield rates. Just over half of the site is at risk of reservoir breach flooding, with depths between 0.3 and 2m for over half of the area affected and below 0.3m

on the rest, with flow below 0.5m/s. Emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan.

The SFRA Level 2 identifies that 1) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); 2) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); 3) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes of the SFRA Level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.

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Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** 460-492 Neasden Lane
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 84% in flood zone 2 (fluvial), 3% in flood zone 3a (fluvial) 24% in flood zone 3 surface water (100 year chance), with 50% within the 30-60cm range and the remainder in the 0-15cm and 15-30cm ranges. 3% in 30 year surface water, 24% in 100 year surface water, 68% in 1000 year surface water No Sewer flooding incidents >=25% < 50% susceptibility to groundwater flooding (100% of the site) Small part of the site has increased potential for elevated groundwater Not within a source protection zone Within a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
PTAL ranges from 2-3. Also in close proximity to Neasden town centre. Close proximity to a number of parks, including the River Brent park, Welsh Harp, and Fryent Country Park. Therefore, the corridor is well provided with amenities, and well positioned to come forward with limited parking, reducing the reliance upon personal vehicles which is prevalent within this part of the borough. This will assist in improving air quality, in addition to the delivery of modern sustainability standards. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and consists of a number of terraced dwellings and commercial units with residential above. The site has been identified as being potentially suitable for redevelopment. The site is not in an area benefitting from flood defences and is within 200m of the River Brent. The majority of the site is in flood zone 2(fluvial) with a small element to the north-west also located within flood zone 3a. Fluvial flooding inundates the site from the north and east. Taking into account 25% climate change, approximately half of the site would be in flood zone 3 while 70% climate change would result in the majority of the site being in flood zone 3. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: development being directed to western half of the site, finished floor level being at least 0.3m above predicted flood levels and flood plain compensation being required, flood resistance and resilience construction of buildings being required where flood levels are less than 0.3m and more than 0.3m respectively, and a flood emergency and evacuation plan.

The site is also at risk of surface water flooding, with the majority of flooding located in the rear gardens of the existing dwellings and also to the front of some of the existing dwellings, with the majority being in the 15-30cm range but with other elements being within the 30-60cm and 0-15cm ranges. The sit currently contains impermeable and permeable space. Water enters the site from Press Road (southeast) and pools in local depressions throughout the site. Climate change will increase extent and velocity, but not maximum depth and hazard of flooding. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point, floor level should be set to Flood Zone 3a + CC extent flood levels if predicted fluvial depths are higher, flood plain compensation being provided for events up to and including a 1 in 1000 year event, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2. The whole site is at risk of reservoir breach flooding with the majority of the site having a maximum depth of over 2m and flood speeds of between 0.5 and 2m/s, and a smaller part of the site having flood depths of between 0.3 and 2m with speeds of below 0.5m/s. Emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan. Additionally, no dwelling basement developments should take place.

The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); ii) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); iii) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes in the SFRA level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2. .
Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Sylvia Court Harrow Road Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 100% in flood zone 2 (fluvial), 62% in flood zone 3a (fluvial), 1% in flood zone 3b (fluvial) 0.2% in flood zone 3 surface water in the 15-30cm range (1 in 100 year event) 0% in flood zone 3a surface water in 1 in 30 year event and 10% in 1 in 1000 year Sewer flooding incidents (1-20) >=25% < 50% susceptibility to groundwater flooding (all of the site) Over half of the site has increased potential for elevated groundwater In a critical drainage area Not in a source protection zone Risk of reservoir breach flooding	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial Zones 1 or 2.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
PTAL is 2-5, with site served by local Neighbourhood Parades. The area set to experience significant growth. Current development on site does not effectively mitigate against harsh, road dominated environment which would be better considered by modern design standards. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. This is significant as car dependency is high in this part of the borough. Also adjacent to Tokyngton Recreation Ground, with sports facilities nearby. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and currently consists of a block of flats including garages and other backlands. The site is wholly within FZ2 and over half of it is within FZ3a (fluvial). The site is within 80m of the River Brent, with the river located south-east of the site. Flooding originates from the Brent, flowing across Point Place and inundating the site from the south-east. The flood risk extent for the climate change scenario is significantly greater, placing the entire site at predicted risk of flooding. Flow velocities and maximum flood depths are also significantly higher under climate change. During70% climate change event, the whole site will be in FZ3. As the site is already developed, the existing dwellings (which already appear to have a height about 30cm above external ground levels) would flood in the region of 0.3m in a 1 in year flood event. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: protect functional floodplain (no new development to be permitted in this extent) and avoid development in the 1 in 20 year extent if the Argenta House hydraulic model outputs are treated as flood zone 3b, developments should take place towards the west and north-western areas of the site where maximum flood depths are lower, updated site modelling may be required, requirements 4.1.2, 4.1.3 and 4.1.4 of the SFRA Level 2 Report to be met, no basement dwelling developments to be permitted, develop a flood emergency and evacuation plan for the site, site users to be signed up to the EA's flood warning service.

A very small element of the site is at risk of surface water flooding in the 1 in 100 year event. Surface water enters the site from the south-east, from the A404. In higher return periods water also enters from Point Place and Derek Avenue in the southwest. CC will increase the extent, velocity and hazard of flooding onsite, but does not increase the max depth onsite. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; developments within the 1 in 1000 year surface water extent require finished floor level of at least 0.3m above the predicted flood level at that point, floor levels should be set relative to flood zone 3a+cc extent flood levels if predicted depths are higher.

Safe access / egress must be required as per the recommendations of the SFRA Level 2, in addition to consultation with Thames Water to confirm if the site has historically flooded, and if so, development must implement SUDS to reduce runoff to sewer and greenfield rates. The whole site is also at risk of reservoir flooding breach, with depths of between 0.3 and 2m and with speeds of between 0.5 and 2m/s and below 0.5m/s. Emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan. No basement dwelling developments, and if basements are to be considered, a screening assessment must be provided. The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); ii) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); iii) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes in the SFRA level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.
Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** 494-502 Neasden Lane Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 100% in flood zone 2 (fluvial), 96% in flood zone 3a (fluvial) 0% surface water in the 30 and 100 year events, but 100% of the site in the 1 I 1000 year event 25-50% susceptibility to groundwater (100% of the site) No sewer flooding incidents Potential for elevated groundwater Not within a source protection zone Not within a critical drainage area	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2.

Exception Test:
Sustainability benefits outweigh flood risk? Yes
PTAL is 3. Also in close proximity to Neasden town centre. Close proximity to a number of parks, including the River Brent park, Welsh Harp, and Fryent Country Park. Therefore the corridor is well provided with amenities, and well positioned to come forward with limited parking, reducing the reliance upon personal vehicles which is prevalent within this part of the borough. This will assist in improving air quality, in addition to the delivery of modern sustainability standards. Positive impacts are anticipated due to the delivery of housing and making the most effective us of the land.

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and currently consists of a mix of terraced homes and areas of hardstanding to the rear. The site backs onto the canal feeder and has been identified as potentially suitable for redevelopment. The whole site is within FZ2, while the majority of the site is also within FZ3a (fluvial), and is within 175m of the River Brent Fluvial flooding that originates from the Brent inundates the site from the south and the north. In the 1 in 100 year flood event only the northern most extent falls outside of FZ3a. Taking into account 25% climate change and above, the whole site would be in FZ3.The site is not in an area benefitting from flood defences. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: developments require finished floor levels of between 1.3m and 1.6m above ground level, depending on the predicted flood level at that point, flood plain compensation being required, flood resilience construction of buildings, and a flood emergency ad evacuation plan including details of safe refuge points.

In terms of surface water, water enters the site from the south, east, and west. Climate change will extensively increase the extent, depth, velocity and hazard of flooding. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; where the predicted flood levels for the surface water 1 in 1000 year event are higher than the Flood Zone 3a + CC depths, finished floor levels should be set to at least 0.3m above the predicted surface water depth, and surface water mitigations including a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2. No dwelling basement developments should take place. The whole site is at risk of reservoir breach flooding with maximum depths of over 2m and maximum speeds of between 0.5 and 2m/s. The site already includes residential dwellings. Emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan.

The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); ii) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); iii) the site could also reduce

flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes in the SFRA level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2. .
Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** 2-44a Harrow Road
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 100% in flood zone 2, 100% in flood zone 3a (fluvial) Sewer flooding incidents (between 1-20) >=25% < 50% susceptibility to groundwater flooding (100% of the site) Increased potential for elevated groundwater In a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** PTAL is 2-5, with site served by local Neighbourhood Parades. The area is set to experience significant growth. Current development on site does not effectively mitigate against harsh, road dominated environment which would be better considered by modern design standards. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. This is significant as car dependency is high in this part of the borough. Also immediately adjacent to Tokyngton Recreation Ground, with sports facilities nearby. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.	

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and currently consists of terraced properties with ground floor commercial units and residential uppers. It has been identified as being potentially suitable for redevelopment. The site is adjacent to the River Brent and is not in an area benefitting from flood defences.

It is located wholly within FZ3a (fluvial). As the site is already in FZ3, with a 70% climate change event depths will increase. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: development being directed to the north western area of the site, finished floor level being at least 0.3m above predicted flood, flood resistance and resilience construction of buildings being required where flood levels are less than 0.3m and more than 0.3m respectively, and a flood emergency ad evacuation plan.

In terms of surface water flooding, no onsite flooding is predicted for the 1 in 100 year event, thus surface water compensatory flood storage may not be necessary. Flood resistance buildings may be required in the south east of the site due to water pooling in the southeast of the site in the 1 in 1000 year event. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: Developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point, floor level should be set to Flood Zone 3a + CC extent flood levels if predicted fluvial depths are higher, flood resistant buildings may be required, and surface water mitigations including a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

The whole site is also at risk of reservoir breach flooding, with depths predominantly between 0.3 and 2m and with speeds predominantly between 0.5 and 2m/s, with some areas with a speed of below 0.5m/s. As the site is already developed, the existing dwellings on site would be flooded in the 1 in 100 year flood event to a depth of around 0.4m. As identified in the SFRA Level 2, Emergency Planning Officers must be consulted to create a reservoir failure emergency and evacuation plan. Safe access / egress must be required as per the recommendations of the SFRA Level 2, in addition to consultation with Thames Water to confirm if the site has historically flooded, and if so, development must implement SUDS to reduce runoff to sewer and greenfield rates.

The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); ii) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); iii) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes in the SFRA level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** 2-4 North Circular Road, 2-32 Brentfield and 1a-3a Sunny Crescent
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 100% in flood zone 3 (fluvial) 47% in flood zone 3a (surface water) in the 1 in 100 year event, 25% in the 1 in 30 year event and 83% in the 1 in 1000 year event No sewer flooding incidents >=25% < 50% susceptibility to groundwater flooding (all of the site) Increased potential for elevated groundwater In a critical drainage area Not in a source protection zone Risk of reservoir breach flooding	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** PTAL is 3-4, with site served by local Neighbourhood Parades. Area set to experience significant growth. Current development on site does not effectively mitigate against harsh, road dominated environment which would be better considered by modern design standards. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. This is significant as car dependency is high in this part of the borough. Also has nearby open space and sports facilities. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land.	

Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes
The site is previously developed and currently consists of semi-detached / terraced housing, with large plots. It has been identified as being potentially suitable for redevelopment. The site is wholly within fluvial flood zone 3a. The existing dwellings would be flooded in the 1 in 100 year flood event in the region of 1.5m. The depths, aligned with the speed of water presents a considerable risk to existing properties and occupants. The River Brent is located west of both parts of this intensification corridor. The river located west of both sites. Flooding originates from the Brent, flowing across the North Circular to the south of the sites, then across the Bridge Park and Unisys Building site, and inundating both sites from the south. The entirety of both sites are within Flood Zone 3a, leaving them at risk of flooding for a 1 in 100 year event. The flood risk extent for the climate change scenario is similar, covering the entirety of both sites. However, flow velocities and maximum flood depths are higher under climate change. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: protect functional floodplain and restrict development to essential infrastructure and water compatible in the 1 in 20 year extent if the Argenta House hydraulic model outputs are treated as Flood Zone 3b, updated site modelling might be required, meeting the requirements of 4.1.2, 4.1.3 and 4.1.4 of the SFRA Level 2 Report, develop separate flood emergency and evacuation plans for both parts of the corridor, site users should be signed up to the EA's flood warning service.

The site is at risk of surface water flooding. Surface water enters the small site from Conduit Way and the A404 in the south. Water enters the large site from the A404 in the south and pools in back gardens. CC will increase the extent, depth, and velocity, but won't increase the maximum hazard of flooding onsite. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point. Floor level should be set to relative to Flood Zone 3a + CC extent flood levels (as detailed above) if predicted depths are higher, flood plain compensation to be provided for events up to a 1 in 100 year event, and surface water mitigations including a detailed drainage plan accounting for 100% of surface water generate from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2. The site is at risk of reservoir breach flooding, so emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan. No dwelling basement developments should take place on the site, and if basements are being considered, a screening assessment must be provided.

The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); ii) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); iii) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes in the SFRA level 2). In conclusion, subject to the requirements of the SFRA Level 2,

development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.
Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Blackbird Court, Blackbird Hill Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 90% in flood zone 2 (fluvial), 54% in flood zone 3a (fluvial), 0% in flood zone 3b (fluvial) 1% in flood zone 3 surface water (1 in 100 year event) within the 15-30cm range 0% of the site in flood zone 3 surface water (1 in 30 year event), 48% (1 in 1000 year) Sewer flooding incidents (1-20) >=25% < 50% susceptibility to groundwater flooding (all of the site) Part of the site has increased potential for elevated groundwater Not within a critical drainage area Not within a source protection zone Risk of reservoir breach blooding from Brent Reservoir	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** PTAL is 3. Also in close proximity to Neasden town centre. Close proximity to a number of parks, including the River Brent park, Welsh Harp, and Fryent Country Park. Therefore the corridor is well provided with amenities, and well positioned to come forward with limited parking, reducing the reliance upon personal vehicles which is prevalent within this part of the borough. This will assist in improving air quality, in addition to the delivery of modern sustainability standards. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes**	

The site is previously developed and consists of a number of terraced dwellings and flats. The site has been identified as being potentially suitable for redevelopment. The majority of the site is in flood zone 3a. The site is adjacent to the River Brent, with the river located east of the site. The flooding originates from the Brent, inundating the site from the north. The flooding extent covers the eastern half of the site for the 1 in 100 year event. The flood risk extent for the climate change scenario is significantly greater. The flooding extent covers the majority of the site, with only the western most extent of the site outside of the flood extent. Although the flow velocities are similar, the depths are also higher under climate change. Taking into account of 70% climate change would result in the majority of the site being in flood zone 3.The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: development should be directed towards the western half of the site where maximum flood depths are lower, floor levels being at least 0.3m above predicted flood levels and flood plain compensation being required, flood resistance and resilience construction of buildings being required where flood levels are less than 0.3m and more than 0.3m respectively, and a flood emergency and evacuation plan.

A very small element of the site is at risk of surface water flood in the 1 in 100 year event. Water enters the site from the River Brent to the east / southeast of the site. Climate change will increase the extent, depth, velocity and hazard. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; Developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point. Floor level should be set to relative to Flood Zone 3a + CC extent flood levels if predicted depths are higher, flood plain compensation being provided, and site development introducing SUDS to manage surface water runoff, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2, in addition to consultation with Thames Water to confirm if the site has historically flooded, and if so, development must implement SUDS to reduce runoff to sewer and greenfield rates. The site is at risk of reservoir breach flooding, so emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan. No dwelling basement developments should take place on the site, and if basements are being considered, a screening assessment must be provided.

The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); ii) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); iii) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes in the SFRA level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.

Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name:** Talbot Court to English Martyrs RC Church Blackbird Hill Corridor
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 31% in flood zone 2 (fluvial), 7% in flood zone 3a (fluvial), 2% in flood zone 3b (fluvial) 0.1% in flood zone 3 surface water (1 in 100 year event), 0.008% in flood zone 3 (1 in 30 year event), 22% 1 in 1000 year event Sewer flooding incidents (1-20) >=25% < 50% susceptibility to groundwater flooding (all of the site) Part of site has increased potential for elevated groundwater Not in a critical drainage area Not within a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** PTAL ranges from 2-3. Site is equidistant to Wembley Park and Neasden town centres. Close proximity to a number of parks, including the River Brent park, Welsh Harp, and Fryent Country Park. Therefore the corridor is well provided with amenities, and well positioned to come forward with limited parking, reducing the reliance upon personal vehicles which is prevalent within this part of the borough. This will assist in improving air quality, in addition to the delivery of modern sustainability standards. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and currently consists of a church with associated buildings, petrol station, supermarket with significant	

parking, car dealerships, bungalows and blocks of flats, including a number of access roads. Less than half of the site is in FZ2, with approximately 7% within fluvial flood zone 3a and an even smaller area in FZ3b. The site is adjacent to the River Brent, with the river located east of the site. The flooding originates from the Brent, inundating the site from the east. The flooding extent covers the easternmost and south-easternmost extent of the site for the 1 in 100 year event. At 25% climate change, part of the area which is currently in FZ2 would become FZ3, and at 70% climate change, the majority of FZ2 becomes FZ3. As such the flood risk extent for the climate change scenario is greater, although flow velocities are similar. Depths are also higher under climate change. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; no development in the flood zone 3b extent, development should be located away from the eastern extent of the site, finished floor levels at least 0.3m above predicted flood depths and flood plain compensation being provided, flood resistance and resilience construction of buildings is required. A flood emergency evacuation plan would be required and site users should sign up to the EA's flood warning service.

A very small element of the site is at risk of surface water flooding in the 1 in 30 year and 1 in 100 year event. Water enters the site from the River Brent in the southeast and from the A4008. Climate change will extensively increase the extent, depth, velocity and hazard of flooding. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes; developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point. Floor level should be set to Flood Zone 3a + CC extent flood levels if predicted fluvial depths are higher, flood plain compensation being provided for events up to a 1 in 1000 year event, development near the River Brent should be avoided, a detailed drainage plan accounting for 100% of surface water generated from the site and complying with policy 5.13 of the London Plan and non-statutory technical standards for SUDS, and ground investigations to confirm whether infiltration based SUDS are suitable.

Safe access / egress must be required as per the recommendations of the SFRA Level 2, in addition to consultation with Thames Water to confirm if the site has historically flooded, and if so, development must implement SUDS to reduce runoff to sewer and greenfield rates. No dwelling basement developments should take place, and if basements are being considered, a screening assessment must be provided. The south eastern part of the site is also at risk of reservoir breach, with a small area towards the River Brent having potential flood water depths of 2m, an area having a depth of between 0.3 and 2m, and an even smaller area (onto Barnhill Road) having potential of depths below 0.3m. Potential speeds range from over 2m/s (closest to the River Brent), between 0.5 and 2m/s, and an area (onto Barnhill Road) of below 0.5m/s. Emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan.

The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); ii) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); iii) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes in the SFRA level 2). In conclusion, subject to the requirements of the SFRA Level 2,

development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2. ..
Recommendation: Identify as an intensification corridor

Policy Ref: BD2	**Intensification Corridor Name: 1-10** Richmond Court and 80b Forty Avenue
Highest vulnerability of proposed use: More Vulnerable	
Flood zone and other sources of flooding: 100% in flood zone 2 (fluvial), 74% in flood zone 3a (fluvial), 15% in flood zone 3b (fluvial) 94% in flood zone 3 surface water (100 year chance) with 50% in the >120cm range, with the remainder split evenly within the ranges 60-90cm and 90-120cm ranges. 49% in 30 year surface water, 94% in 100 year surface water, and 100% in 1000 year surface water. Half of the site has increased potential for elevated groundwater Sewer flooding incidents (between 1-20) < 25% susceptibility to groundwater flooding (100% of the site) In a critical drainage area Not in a source protection zone	**Sequential Test:** **Pass:** It is necessary to identify the site to address longer term housing needs as there are insufficient alternative sites in fluvial zones 1 or 2.
Exception Test: **Sustainability benefits outweigh flood risk? Yes** Site has a PTAL of 3-4 being within close proximity to Wembley Park LUL station. Also within close proximity to Wembley Park town centre. Therefore has good access to transport and a range of amenities. Redevelopment will assist in reducing car dependence through a reduction in parking upon existing. This, along with improved sustainability standards will help improve a number of inter-related issues, including health and climate crisis. Positive impacts are anticipated due to the delivery of housing and making the most effective use of the land. **Safe for its lifetime without increasing flood risk elsewhere and where possible reducing flood risk overall? Yes** The site is previously developed and currently consists of a detached house and Richmond Court flats, with backland space. The site is	

adjacent to the Wealdstone Brook and is wholly within FZ2, with 74% in FZ3a and 15% in 3b (fluvial). Flood depths are approximately 1m in the 1 in 100 year event. Together with the speed of flow this brings a danger for all. Taking into account climate change 25%, the whole site would be in FZ3. The site is also at risk of reservoir breach flooding, with depths of between 0.3 and 2m and flow speeds ranging from between 0.5 and 2m/s and below 0.5m/s. The site is not in an area benefitting from flood defences.

The site already comprises residential dwellings, including ground floor flats with bedrooms. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. This includes: no developments in FZ3 extent, development being directed to the north western area of the site, finished floor levels being at least 0.3m above predicted flood levels and flood plain compensation being required, flood resistance and resilience construction of buildings being required where flood levels are less than 0.3m and more than 0.3m respectively, and a flood emergency ad evacuation plan.

A significant proportion of the site (90%) is also at risk of surface water flooding, with equal amounts in the >1.2m and 60-90cm ranges, and smaller areas in the 30-60cm and 90cm-1.2m ranges. The potential depths increase closer to Wealdstone Brook. Surface water enters the site to the north of Forty Avenue and Brook Avenue, and to the south from the Wealdstone Brook. Climate change will increase the extent of max depth, velocity and hazard flooding. Although the existing flats' rear gardens are soft landscaped, the parking areas to the front are hardsurfaced. The SFRA Level 2 identifies a number of mitigation / FRA requirements to ensure that development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere. developments within the 1 in 1000 year surface water extent require finished floor levels of at least 0.3m above the predicted flood level at that point. Floor level should be set to Flood Zone 3a + CC extent flood levels if predicted fluvial depths are higher, flood plain compensation being provided, and site development introducing SUDS to manage surface water runoff.

Safe access / egress must be required as per the recommendations of the SFRA Level 2, in addition to consultation with Thames Water to confirm if the site has historically flooded, and if so, development must implement SUDS to reduce runoff to sewer and greenfield rates. Emergency planning officers must be consulted to create a reservoir failure emergency and evacuation plan.

The SFRA Level 2 identifies that i) development can be made safe throughout its lifetime across the site without increasing flood risk elsewhere (See Safety of Development box in the SFRA Level 2); ii) mitigation measures to protect proposed developments against deep maximum fluvial flood depths can be implemented (See Mitigation / FRA Requirements in the SFRA Level 2); iii) the site could also reduce flood risk overall with appropriate SuDS and flood storage compensation measures implemented (See Mitigation - Surface Water Drainage and Mitigation - Flood Risk Requirements boxes in the SFRA level 2). In conclusion, subject to the requirements of the SFRA Level 2, development can be made safe throughout its lifetime without increasing flood risk elsewhere and passes the exceptions test. In the case of an application, a site specific flood risk assessment should demonstrate that the development meets the requirements of the SFRA Level 2.

Recommendation: Identify as an intensification corridor