

Mr Gavin Ball
London Borough of Haringey
Planning Policy Team

Our ref: NE/2006/000070/CS-04/PO1-L01

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By email: LDF@haringey.gov.uk

Dear Gavin

London Borough of Haringey Draft Local Plan Consultation (Regulation 18):
Alterations to the Strategic Policies (DPD) (adopted 2013)
Draft Site Allocations (DPD): Preferred Option
Draft Tottenham Area Action Plan: Preferred Option
Draft Development Management Policies (DPD): Preferred Option

Thank you for consulting us on the above documents. Our comments for each document are listed below in addition to the supporting evidence base documents. Our comments on the Sustainability Appraisals are contained within our comments for each of the Local Plan documents.

Evidence Base documents

Strategic Flood Risk Assessment (SFRA)

We commented in August 2014 on your then adopted Level 2 SFRA (dated March 2013). The SFRA (dated Feb 2015) has now been updated following these comments but we note its status is now draft, rather than adopted. As this is an updated document we have concentrated on commenting on the recommendations for specific site allocations and how the SFRA supports the allocated sites. Your Level 1 SFRA and Surface Water Management Plan (SWMP) was not available on your website and we ask that they are added.

Our comments on the SFRA should be read in conjunction with our comments on the Draft Site Allocations (DPD) and Draft Tottenham Area Action Plan to ensure that all documents are supported by the best possible information.

We have noticed that many of the sites' summary tables contain the wrong site outlines or different site names to the site allocations documents including the following sites:

- NT2, Northumberland Park
- NT5, Tottenham Hotspur Stadium
- SS2, Gourley Triangle
- TH1, Station Square West
- TH5, Tottenham Hale Retail Park
- TH7, Hale Wharf
- TH8, Welbourne Centre
- SA52, Pinkham Way

Cont/d..



- SA26, Clarendon Square Gateway

There are some allocated sites are not included in the SFRA. The SFRA should provide guidance on the preparation of Flood Risk Assessments for allocated development sites. This is particularly important where site allocations include or are bordered by a culverted Main River. This is because if the culvert fails these sites may be at increased flood risk even though they are in Flood Zone 1. This scenario is not covered by the main SFRA document (Section 9.1 Over-Arching Principles). In order to be satisfactory the SFRA's Appendix A should include the following sites:

- NT4, North of White Hart Lane
- TH3, Ashley Road North and Hale Slither (area a)
- TH6, Hale Village Tower
- TH9, Fountayne and Markfield Road
- TH10, Herbert Road and Constable Road
- SA14, Mecca Bingo
- SA17, The Mall
- SA62, Barber Wilson
- SA66, Leabank and Lemsford Close

Sequential Test

We are pleased to see that our previous comments have been considered and that a sequential test has now been carried out. It is positive that the majority of the sites are located in Flood Zone 1. There are some sites located in Flood Zone 2 and one site has some Flood Zone 3. We have some suggestions below to improve the robustness of the sequential test. Once the Sequential Test has been finalised it is imperative that it is available on your website and can be viewed alongside other evidence base documents.

We are pleased to see that all site allocations in Flood Zones 2 and 3 are included in the sequential test. It would be beneficial to provide clarity on the criteria which have been used in selecting all of the sites to be sequentially tested; for example sites in Flood Zone 1. We encourage you to sequentially test sites which are also identified as Critical Drainage Areas to provide further transparency.

Site SA52 (Pinkham Way) has an area of Flood Zone 3 which, although is recognised in the site allocation, is not reflected in the sequential test. We recommend the sequential test is revisited to show that there is some Flood Zone 3 within the red line boundary.

We request that the wording in the final column (Sequential Test passed?) is altered for sites in Flood Zone 2 to simply state that a Flood Risk Assessment (FRA) will need to be submitted with a planning application. By stating that a *Surface Water* (FRA) is required implies that you only require consideration of the impacts of the development on surface water flood risk and not fluvial flood risk or other sources of flooding. This would be contrary to the National Planning Practice Guidance.

At present the document is very difficult to cross reference with the Site Allocations and Area Action Plan documents as the site ID and names are different. Please ensure that the Site ID matches across all of the published documents.

The Sequential Test does not consider any of the allocated sites in Flood Zone 2 for highly vulnerable uses, which must be cross-referenced to the development guidelines for the site specific allocations.

Although the Sequential test mentions windfall sites, it does not consider the approach of applying the sequential test to windfall sites. For clarity we suggest you refer to your Development Management Policy DM36 and supporting text 4.105 for the approach on considering windfall sites.

Water Framework Directive

Although there is some recognition of the Water Framework Directive and the Thames River Basin Management Plan there is little reference in the plans to your responsibilities under WFD in the DM DPD or AAP. The Local Authority and Lead Local Flood Authority have a responsibility to ensure progress toward good ecological potential which must be reflected in both plans. We have provided suggestions and more details of this in our comments on each of the plans. We also agree with paragraph 17.12.11 of the AAP Sustainability Appraisal.

Water quality improvement is a primary aim of WFD and should be acknowledged and prioritised in all plans – this can be addressed through greater reference to need for SUDS and dealing with misconnections, particularly in the AAP. Water quality improvements should be a priority for you in your borough especially since the restoration of the Moselle Brook in Lordship Rec. This is supported by Sustainability Appraisal paragraph 17.15.7.

Green infrastructure should be a key aim within the plans because a network of green spaces, green roofs and river corridors can not only provide flood storage and provide habitat for wildlife, but also increase resilience to future climate change and recreational spaces for people. Paragraphs 114 and 117 of the NPPF advocate this approach and the link with climate change adaptation is highlighted in paragraph 004 (Climate Change) in the National Planning Practice Guidance.

I have enclosed a paper which summarises the Mayes Brook River Restoration project in LB Barking and Dagenham. The project is a good example of the wider benefits of river restoration such as health and wellbeing, economic improvements, recreation, and education. It also promotes the case for urban river and parkland habitat regeneration as a low-cost option to enhance not only the natural environment and wildlife but also the wellbeing and prosperity of local communities. The principles of this project can be applied in other locations and should be considered in the development of your policies and Tottenham AAP.

Alterations to the Strategic Policies (DPD)

Please note that in paragraph 3.1.15 there is a reference to PPS 25 which has now been withdrawn. This should be updated to refer to the current National Planning Practice Guide. We have no other comments to make on this document.

Draft Development Management Policies (DPD): Preferred Option

DM25 Nature Conservation

We feel part A,b of this policy could be misinterpreted. Is the aim of the policy to improve access to nature for humans/wildlife or both? Paragraph 4.2 states that the Council intends to facilitate linking of the borough's open and green spaces and to strengthen the network of green infrastructure for the benefit of the environment and local communities so we assume that the policy means for both.

The focus of this policy appears to be on seeking mitigation for applications where a negative impact cannot be avoided. The policy would be improved by outlining that the

first priority is for sites to be enhanced and protected in line with policy 7.19 of the London Plan and reflect supporting paragraph 4.8.

DM32 Living roofs and green walls

We are supportive of this policy and in particular the reference to the GRO Green Roof Code (2014). We agree with paragraph 23.15.5 of the Sustainability Appraisal and suggest the policy also highlight the benefits in terms of improving water quality.

DM34 Environmental Protection

We have a strategic duty for air quality and we do not have a statutory duty to comment on a site by site basis. However we do advocate measures such as enclosure (use of a building) for waste sites to control particulate emissions, which you may wish to consider when seeking air quality assessments. We will also be seeking the requirement for enclosure in the consultation on the North London Waste Plan.

We are pleased to see the requirements for mitigation of adverse impacts resulting from external lighting and encourage the inclusion of watercourses as a sensitive receptor. Artificial lighting disrupts the natural diurnal rhythms of a range of wildlife using and inhabiting the river and its corridor habitat. Minimising light spill to the river and within 8 metres of the top of the bank will reduce this disruption.

We support parts F and G of the policy. The supporting text in paragraph 4.90 would benefit from a slight alteration to make it clear that the Environment Agency's responsibilities in terms of land contamination are in respect of controlled waters.

DM35 Managing and reducing Flood Risk: Key Principals and DM36 Flood Risk Assessments

We are pleased to see that many of our previous comments have been taken on board. We have commented on these policies under one heading as we recommend consolidating them to form one stronger and more concise policy. As the National Planning Policy Framework sets out when a Flood Risk Assessment will be required we do not consider policy DM36 is an essential policy to have in its own right.

It is positive that the policy outlines the requirement for sites to carry out the sequential test and our preference would be to have this in the early part of the policy to reflect the fact that it is one of the first stages in site selection. This will also prevent applicants carrying out FRAs unnecessarily prior to determining whether the sequential test is passed.

We suggest you split DM35 part B into two parts focusing on fluvial and surface water flood risk requirements. We have suggested the wording below which also strengthens the requirements for developers to aim to provide adequate flood plain compensation on site in the first instance and only offsite if this cannot be achieved.

Suggested wording for Policy DM35 and deletion of DM36:

A. The Council will ensure that all proposals for new development avoid and reduce the risk of flooding to future occupants, and do not increase the risk of flooding.

B. All proposals for new development within Flood Zone 2 and 3a will be required to provide sufficient evidence for the Council to assess whether the requirements of the Sequential Test and Exception Test (where required), have been satisfied. Proposals must be informed by a site specific Flood Risk Assessment (FRA) taking account of all potential sources of flooding and should:

- a. demonstrate the application of a sequential approach for the development of individual sites, to ensure that the most vulnerable land uses are located in areas of the site that are at lowest risk of flooding;
- b. preserve overland flood and flow routes and ensure there is no net loss of flood storage. Adequate flood storage compensation should be provided on site or if this is not possible provided off site where circumstances allow;
- c. where appropriate set out the mitigation measures that will be incorporated on site to manage residual flood risk including
 - i. Finished floor levels set no lower than 300mm above the 1 in 100 chance in any given year, including an allowance for climate change, flood level.
 - ii. Ensure safe access and egress for future users of the development or an appropriate emergency evacuation plan.
- d. further contribute to naturalising watercourses where opportunities arise, in line with Policy DM40 (Watercourses & Flood Defences).

C. All proposals for new development will be required to:

- a. Manage and reduce surface water run-off, in line with Policy DM37 (Sustainable Drainage Systems) and Policy DM38 Critical Drainage Areas);
- b. Manage water and waste water discharges, in line with Policy DM41 (Managing Drainage Connections and Waste Water).

D. With the exception of water compatible and essential infrastructure, development in areas designated in the Haringey's SFRA as being within Flood Zone 3b will not be permitted.

We are also supportive of paragraphs 4.108 and 4.109 and are pleased to see reference made to the SFRA.

DM 37 Sustainable Drainage Systems

We are supportive of this policy and the supporting text and have some minor suggestions to strengthen the wording.

A. All proposals for new development must seek to manage surface water as close to its source as possible, in line with the London Plan drainage hierarchy.

B. The Council will require Sustainable Drainage Systems (SuDS) to be sensitively incorporated into new development by way of site layout and design, having regard to the following requirements:

- a. All major development proposals will be required to reduce surface water flows to a greenfield run-off rate of ~~run-off~~ for a 1 in 100 year critical storm event;
- b. All minor development proposals should aim to achieve a Greenfield rate of run-off and, at a minimum, achieve a 50 per cent reduction on existing site run-off rates; and
- c. All other development should seek to achieve a greenfield rate of run-off and include at least one 'at source' SuDS measure resulting in a net improvement in water quantity or quality discharging to a sewer.

d. For all development where a Greenfield run-off rate cannot be achieved justification must be provided to demonstrate that the rate has been reduced as much as possible.

C. In addition, where Sustainable Drainage Systems are implemented they will be expected to:

- a. Meet the requirements set out in the Council's guidance until such time National Standards are in place;
- b. Incorporate measures identified in the Surface Water Management Plan;

- c. Be designed to maximise biodiversity and local amenity benefits, and where appropriate, ensure that SuDS techniques provide for clean and safe water at the surface; and
- d. Function effectively over the lifespan of the development.

e. Improve water quality

D. Where SuDS cannot be implemented due to site constraints (such as land contamination or space limitations), **robust** justification must be provided along with proposed alternative sustainable approaches to surface water management.

Urban Diffuse Pollution is a key issue within this catchment to which the use of SuDS provides an opportunity to improve water quality. Any improvements will not only provide benefits in the immediate locality but will also further down the catchment. Developers should be encouraged to incorporate SuDS in any development, which is also supported by strategic policy SP5 of Haringey's Local Plan. SuDS can be used for both new development and retrofitting/refurbishment of existing stock.

DM 38 Critical Drainage Areas

We are supportive of this policy. We have not notified you of any Critical Drainage Areas and it is clear that the policy is referring to Critical Drainage Areas identified in your Surface Water Management Plan.

DM39 Protecting and Improving Groundwater Quality and Quantity

We are supportive of this policy and the supporting paragraphs.

DM 40 Watercourses and Flood Defences

We suggest part A is reworded to say '*where the site boundary is within 8m of a main river or 5m of an ordinary watercourse new development will be required to....*'. This prevents the possibility of a red line boundary being drawn to exclude the watercourse to avoid fulfilling the requirements of the condition. It is positive that the River Basin Management Plan has been referred to in the policy and in the supporting text.

We are supportive of the presumption against culverting in part B. We suggest a change in wording of part C to improve the robustness of its implementation "*On sites with culverted watercourses, proposals for new development will be expected to investigate and secure the implementation of measures to restore sections of the watercourse, with clear and robust justification provided if considered unachievable.*" .

Part D is positively worded and we are pleased to see that a set-back distance of 8m and 5m has been specified, and a requirement for a condition survey of existing flood defences. For further clarity you may wish to note either in the policy or in the supporting text that culverts are also considered flood defences.

Providing a definition of main watercourses and ordinary watercourses in supporting paragraph 4.127 is helpful. As it is currently written it may be slightly misleading as there are examples such as the Havering New Sewer which are classified as main watercourses. We recommend the following alternative text to avoid any confusion: "*Main rivers are all watercourses shown on the statutory main river maps held by the Environment Agency and the Department of Environment, Food and Rural Affairs. Ordinary watercourses are all other watercourses.*"

Whilst we are supportive of this policy and are satisfied that it covers flood risk adequately, we feel that the focus on improving watercourses in terms of ecology and WFD is somewhat hidden in supporting paragraphs 4.130 -4.133. You could either add

to DM40 or have an additional policy to cover the Blue Ribbon Network in its own right, building on the requirements set out policy SP5 to restore and enhance the Blue Ribbon Network. The policy should make it clear to applicants how the Council will expect protection and enhancement of all watercourses, culverted or otherwise. For a good example where this has been achieved and implemented well we refer you to Harrow's Policy DM11¹.

Rivers and Watercourses

Policy DM 11: Protection and Enhancement of River Corridors and Watercourses

A. The design and layout of development on sites containing a main river or ordinary watercourse within the site boundary will be required to maintain an undeveloped buffer zone of 8 metres either side of a main river, 5 metres either side of an ordinary watercourse, or an appropriate width as may be agreed by the Environment Agency or Council.

¹ Available here http://www.harrow.gov.uk/info/856/local_plan/609/development_management_policies

- B. Applications for major development on sites containing a main river or ordinary watercourse within the site boundary will be required to:
- a. have regard to the relevant provisions of the Thames River Basin Management Plan and the London River Restoration Action Plan;
 - b. investigate and, where feasible, having regard to the current condition of the watercourse, secure the implementation of environmental enhancements to open sections of river or watercourse; and
 - c. investigate and, where feasible, secure the implementation of a scheme for restoring culverted sections of river or watercourse which must include an adequate buffer for flooding and maintenance purposes.
- C. Where on-site enhancements or deculverting are financially viable but not feasible, the Council will seek a financial contribution towards relevant other projects for the enhancement or deculverting of other sections of the river or watercourse.
- D. Proposals that would adversely affect the infrastructure of main rivers and ordinary watercourses, or which would fail to secure feasible enhancements or deculverting, will be resisted.

DM41 Managing Drainage Connections and Waste Water

This policy would be a good place to have a requirement for developers to investigate and rectify any misconnections on site to improve water quality in the borough. The Lower Lee river system has historically suffered from poor water quality as a result of significant modifications. Many tributaries are confined to concrete open channels or in some cases hidden underground in culverts or pipes. This led to widespread pollution from sewage misconnections that went undetected.

Although paragraph 17.15.7 of the AAP Sustainability Appraisal suggests that water quality could be enhanced by encouraging development adjacent to watercourses utilising SuDS, there is very little reference within the Sustainability Appraisals to how the plan will improve water quality across the borough.

Comments on water resources

Haringey is located in the Thames Water supply zone and in an area of serious water stress, which does not appear to have been identified in the plan. With such a significant increase in the number of houses, we would expect the AAP and DM DPD to include a policy reflecting the requirements of London Plan policy 5.15 water use and supplies, for residential development to be designed so that water consumption would

be at 105 litres or less per head per day. This is supported by the AAP Sustainability Appraisal paragraph 17.15.7.

It is Thames Water's responsibility to manage the demand for water. Every five years, Thames Water publishes a Water Resources Management Plan in which they assess future water demand over the next 25 year period. We review and discuss any proposals to meet additional water requirements. The plan put forward by Thames Water has a strong emphasis on demand management and water efficiency to help meet future water supply requirements. The Environment Agency does support this approach but it will require others to contribute for these aims to be achieved.

Draft Site Allocations (DPD): Preferred Option

For clarity and to avoid repetition where possible we have commented on all the sites which have been allocation in both the Site Allocations DPD and Tottenham AAP within the next section.

Thank you for providing shapefiles for us to check the environmental constraints of the allocated sites more efficiently. The revised layout of the allocated sites in both documents is clearer and much easier to navigate. We welcome the implementation of site requirements and development guidelines sections and offer site specific comments in the next section. Where necessary we have proposed additional or alternative wording to improve the robustness, supported by the recommendations of the Sustainability Appraisals.

Draft Tottenham Area Action Plan: Preferred Option

General comments

In our response dated 20 March 2014 to the previous version of this document we raised a number of concerns mainly with regard to the level of utilisation of the evidence bases. It is disappointing that environmental issues, challenges and opportunities are still largely absent in Sections 2 and 3. I refer you to our previous response as the comments are still relevant.

We previously highlighted that any sites allocated within the Area Action Plan would need to be sequentially tested in addition to the Site Allocations. We are pleased to see that a sequential test has now been undertaken to support the Site Allocations and Area Action Plan.

Policy AAP4 Green Link

We welcome a policy in the plan to encourage the retention of existing and promotion of new green infrastructure in the borough. However it is not clear as to the aim of the green link identified in this policy or specifically what is meant by "green". We agree with the statements within the Sustainability Appraisal which highlights uncertainty as to what the potential impacts of the link are and it's value in terms of biodiversity (paragraph 17.12.9.).

Given that the proposed link is proposed to cross at least two main waterbodies and link to the sites adjacent to the Walthamstow Wetlands (designated RAMSAR and SSSI) it is disappointing that the Thames River Basin Management Plan has not been utilised to support this policy. There should also be greater recognition within this policy of

biodiversity and in particular the Blue Ribbon Network Policies of the London Plan which is supported by paragraph 17.12.2 of the Sustainability Appraisal).

Green infrastructure should be a key aim of the AAP because a network of green spaces, green roofs and river corridors can not only provide flood storage and provide habitat for wildlife, but also increase resilience to future climate change and recreational spaces for people. Paragraphs 114 and 117 of the NPPF advocate this approach and the link with climate change adaptation is highlighted in paragraph 004 (Climate Change) in the National Planning Practice Guidance.

Water Framework Directive and River Basin Management Plan

The Moselle Brook and Stonebridge brook are both heavily modified waterbodies, which are largely in culvert. They are both tributaries of the Lower Lee River, classified as 'poor' ecological status and failing to meet 'Good ecological potential' under the Water Framework Directive. The allocated sites should support objectives within the River Basin Management Plan to re-open existing culverts within these areas, where feasible, as supported by strategic policy SP5 of Haringey's Local Plan which encourages all development to restore and enhance the Blue Ribbon Network.

All development on sites with culverted watercourses will be expected to investigate the feasibility of deculverting. Deculverting not only provides opportunities to reduce sewage pollution through rectification of misconnections but can also deliver the following wider benefits to the area:

- Enhancing the Blue Ribbon Network by providing valuable aquatic habitat, aiding fish passage, and significantly adding to the visual attractions of an area.
- Offering educational and play opportunities for children, enhancing pedestrian and cycle routes and giving people a touch of the countryside and its seasons in the town.
- Using water in motion to mask city noise and provide an atmosphere of quiet and calm.
- Complementing other urban regeneration initiatives, giving a place a sense of identity and bringing commercial benefits such as enhanced image for properties and up to 20% increase in land values or rents.
- Reducing maintenance and construction costs by using natural bioengineering techniques rather than concrete constructions.
- Reducing flood risk, and creating balancing ponds to help reduce flooding downstream.²

Where it is adequately demonstrated that deculverting will be unachievable, the design principles should include a robust SuDS scheme to secure alternative environmental enhancements that provide multiple benefits. Water quality improvement is a primary aim of WFD and should be acknowledged and prioritised in all plans. This can be addressed in the AAP through greater reference to need for SuDS and dealing with misconnections. This is supported by Sustainability Appraisal paragraph 17.15.7.

In addition to investigating the feasibility of deculverting development on sites with watercourses are expected to include a set back to incorporate at least an 8m buffer zone. Buffer zones:

- Provide habitat and 'green corridors' for flora and fauna
- Support the ecology and natural functioning of the watercourse

² Source: <http://www.ciwem.org/policy-and-international/policy-position-statements/de-culverting-of-watercourses.aspx>

- Allow safe access to the watercourse and provide sufficient space for machinery to work alongside the watercourse (e.g. to remove obstructions that could cause flooding)
- Help prevent chemicals, rubbish and other waste from entering the watercourse (rubbish can block watercourses and thus increase flood risk)
- Stabilise and maintain the banks of the watercourse
- Attenuate surface water flows and can contribute to an overall sustainable drainage system (SuDS).

Allocated sites

Sites of 1ha or more:

Area Action Plan: NT1, NT2, NT3, NT4, NT5, SS1, SS2, SS6, SS4, TH1, TH2, TH3, TH4, TH5, TH6, TH7, TH8, TH9

Site Allocations: SA12, SA15, SA16, SA17, SA18, SA19, SA24, SA26, SA32, SA33, SA34, SA35, SA37, SA38, SA40, SA43, SA44, SA45, SA46, SA47, SA52, SA53, SA54, SA57, SA58, SA62, SA63, SA66, SA10

The development guidelines for these sites should be amended to reflect the fact that a Flood Risk Assessment will be required, as stipulated by footnote 20 to National Planning Policy Framework paragraph 103. It is also a requirement of London Plan policy 5.13 that all sites over 1ha in size shall make use of Sustainable Drainage Systems (SuDS), which should also be included in the site requirements or the development guidelines. Haringey's Local Plan strategic policy SP5 also places a requirement on all development to implement SuDS to improve water attenuation, quality and amenity. We suggest the following wording:

A Flood Risk Assessment (FRA) must be undertaken to understand the flood risks of the site pre and post development. Development must be safe for future users, not increase flood risk on or off site, and utilise SuDS in accordance with NPPG and London Plan.

We are pleased that the SWMP designated Critical Drainage Areas (CDAs) have been included within the considerations for the allocated sites where they are present. Where CDAs are present you may also wish to consider the inclusion of more stringent design guidelines to make it clearer to developers what this means for the design of the development. We suggest the following additional wording as a minimum:

This site falls within a Critical Drainage Area (CDA). Development of this site must be shown, in a Flood Risk Assessment, to achieve a runoff rate of Greenfield or lower.

Sites in Flood Zone 2:

Area Action Plan: NT2, NT3, NT4, NT5, TH1, TH2, TH4, TH5, TH6, TH7, TH9, TH10

Site Allocations: SA52, SA63, SA66

Where sites are in Flood Zone 2 this should be noted explicitly in the explaining what this means for the design guidelines of the development. Where there is more than one flood zone (e.g. in Flood Zones 1 & 2) this should also be noted and the development should follow the sequential approach to steer the development to the parts of the site at lowest risk of flooding. We suggest the following additional wording is added to the development guidelines for the above sites:

This site is in Flood Zone 2, classified by the National Planning Practice Guidance as having a medium risk of flooding from rivers. Development of this

site must be supported by a Flood Risk Assessment. For development on this site to be acceptable the FRA must show there will be no increase in flood risk on or off site and that the development will be safe for future users. Development should be focussed in areas of Flood Zone 1 and no highly vulnerable uses will be permitted in areas of Flood Zone 2 without passing the sequential test.

For sites where there is more than one Flood Zone (**AAP**: NT2, NT3, NT4; **SA**: SA52, SA63, SA66) we suggest the following additional wording:

*This site is in Flood Zones 1 & 2 & 3 [**delete as applicable**], classified by the National Planning Practice Guidance as having a low/medium/high [**delete as applicable**] risk of flooding from rivers. Development of this site must be supported by a Flood Risk Assessment. The FRA must show there will be no increase in flood risk on or off site and that the development will be safe for future users. Development must be steered to the areas within the red line boundary that are at lowest risk of flooding. Development should be focussed in areas of Flood Zone 1 and no highly vulnerable uses will be permitted in areas of Flood Zone 2 without passing the sequential test.*

Sites within 8m main watercourse:

Area Action Plan: NT3, NT4, SS2, TH7

Site Allocations: SA14, SA16, SA17, SA26, SA52, SA62, SA63, SA66

NT3 High Road West

The Moselle Brook culvert is correctly identified as running through the site under the road. Your SFRA has identified the culvert at this location as being in a potentially poor condition with bulging brickwork, tree roots intruding, loss of mortar to joints and brickwork missing in places. De-culverting and carrying out improvement works to the culvert must be thoroughly explored and expressed within the design guidelines. Our suggested wording is below:

The Moselle Brook runs in a culvert under White Hart Lane across the site. Development proposals must explore opportunities to de-culvert the Moselle Brook, with clear and robust justification provided if considered unachievable. No new buildings will be permitted within 8m of the edge of the culvert and it's condition must be commensurate with the lifetime of the development.

Due to the presence of the culvert and potential flooding impacts, this site should be included in your SFRA and Appendix A.

NT4 North of White Hart Lane

The Moselle Brook culvert runs south of the allocation under the road of White Hart Lane. Although it is outside the red line boundary the culvert should be identified in the design guidelines. This is because if the culvert were to collapse then the development would be at an increased flood risk. The access is most likely to cross the culvert and drainage of the site is likely to utilise the culvert, therefore failure of the culvert will have an impact on the development. Applicants will therefore need to consider this and there should be scope to carry out improvement works to the culvert as part of the development. Suggested wording is below:

The Moselle Brook runs in a culvert under White Hart Lane to the south of the site. The condition of the culvert must be commensurate with the lifetime of the development. A condition survey will need to be undertaken and repair works identified carried out. No new buildings will be permitted within 8m of the culvert.

Due to the proximity of the culvert and potential flooding impacts due to culvert failure, this site should be included in your SFRA and Appendix A.

NT5 Tottenham Hotspur Stadium

This site has been included in your SFRA under a different name- Lawrence Road (Appendix A1, Table 1-26). Although the maps in the SFRA show the Flood zones and presence of a culvert, this has not been noted in the text or translated into the Future Planning Requirements within the AAP.

The Moselle Brook culvert runs along the western boundary of the allocation under the road. If the culvert were to collapse then the development would be at an increased flood risk. There should be scope carry out improvement works to the culvert as part of development of this site and this must be thoroughly explored. This must be reflected in your site allocation. The access is most likely to cross the culvert and drainage of the site is also likely to utilise the culvert, therefore failure of the culvert will have an impact on the development. Therefore if it fails there will be large impacts on the development. The Future Planning Requirements must include a comment like the following:

The Moselle Brook runs in a culvert under High Road to the West of the site. The condition of the culvert must be commensurate with the lifetime of the development. A condition survey will need to be undertaken and repair works identified carried out. No new buildings will be permitted within 8m of the culvert.

SS2 Gourley Triangle

This site has been included in your SFRA but the site outline is different to that depicted in the site allocation. Assuming that the red line boundary is correct in the AAP, the SFRA must be amended to reflect the presence of Stone Bridge Brook in culvert running across the site.

The culvert runs beneath the site and it will affect how the site can be developed. Therefore we suggest you change the text in your development guidelines to include a bullet point stating:

The Stone Bridge Brook runs in a culvert under the site. Development proposals must explore opportunities to de-culvert the Moselle Brook, with clear and robust justification provided if considered unachievable. No new buildings will be permitted within 8m of the edge of the culvert and it's condition must be commensurate with the lifetime of the development.

TH7 Hale Wharf

This allocation is included in the SFRA, however the red line boundary is different and the site name is also different (Tottenham Hale, Tottenham Hale Retail Park). The SFRA identifies the flood zone that the development falls in but does not highlight the river wall and its importance as a flood defence within the flood risk implications for the site. This must be amended.

We are pleased to see that we are flagged as a key stakeholder in the development guidelines. We have suggested additional wording on page 3 of our response to secure a satisfactory development design in terms of flood risk. For this site we also request the following wording in addition to consider the adjacent rivers and implications on flood risk and biodiversity:

The site is surrounded by a network of main rivers (Pymmes Brook, Lee Navigation and Lee Cut). Development should ensure opportunities to enhance the ecological status of the rivers, reduce flood risk and ensure access for future maintenance and replacement of the river walls is realised. The condition of the flood defence must be commensurate with the lifetime of the development. A condition survey will need to be undertaken and any repair works identified carried out.

SA14 Mecca Bingo

We are supportive of the recognition of the Moselle Brook culvert in DPD site allocations (site requirements section). However, the wording could be strengthened as it does not give criteria for suitability of future use or any fallback position if it discovered that the river cannot be de-culverted here. Provision for not building on top of the culvert in the event that de-culverting is not possible allows the culvert to be opened up in the future and means repair and maintenance works can be done to it more easily.

To rectify this we suggest the following additional wording:

The Moselle Brook runs in a culvert under the site, and has been identified as being in a poor condition. Development proposals must explore opportunities to de-culvert the Moselle Brook, with clear and robust justification provided if considered unachievable. No new buildings will be permitted within 8m of the edge of the culvert and it's condition must be commensurate with the lifetime of the development.

This site does not appear to have been identified with the SFRA.

SA16 Wood Green Library

The SFRA correctly identifies the culvert (Moselle Brook) on this site and says that a FRA will be required to show development can remain safe. We are also pleased to see that the development guidelines for the allocated site recognise the culvert and encourages the investigation of de-culverting. We recommend the following wording to make the allocation more robust and ensure that the aims of the Thames River Basin Management Plan and WFD are taken into account:

The Moselle Brook runs in a culvert under the site, and has been identified as being in a potentially poor condition. Development proposals must explore opportunities to de-culvert the Moselle Brook, with clear and robust justification provided if considered unachievable. A deculverted river may be a possible focal point for the new urban square. No new buildings will be permitted within 8m of the edge of the culvert and it's condition must be commensurate with the lifetime of the development.

SA17 The Mall

We are pleased to see that the culverted Moselle Brook has been recognised in this site allocation. Although the supporting text doesn't mention opening up the culvert this is considered acceptable as buildings are to be retained for this allocation. The culvert would need to be shown to be safe throughout the lifetime of the development and developers should be made aware that this may require some work to the culvert.

We suggest you change the text in your development guidelines to:

The Moselle Brook runs in a culvert under this site. The condition of the culvert must be commensurate with the lifetime of the development. A condition survey

will need to be undertaken and repair works identified carried out. No new buildings will be permitted within 8m of the culvert.

This site has not been included in your SFRA and should be included in Appendix A.

SA26 Clarendon Gateway

We are pleased to see that the culverted Moselle Brook has been recognised in this site allocation. The culvert is on the edge of the site. There should be scope to de culvert and this must be thoroughly explored.

To amend this we suggest you change the text in your development guidelines to:

The Moselle Brook runs in a culvert under the site, and has been identified as being in a potentially poor condition. Development proposals must explore opportunities to de-culvert the Moselle Brook, with clear and robust justification provided if considered unachievable. A deculverted river may be a possible focal point for the new urban square. No new buildings will be permitted within 8m of the edge of the culvert and it's condition must be commensurate with the lifetime of the development.

This site has not been included in your SFRA and should be included in Appendix A.

SA52 Pinkham Way

There are two culverted watercourses that affect this site. The Bounds Green Brook is located outside the red line boundary to the north of the site and is designated main watercourse. There is also a culverted stream within the site however is designated an ordinary watercourse and is the responsibility of the Lead Local Flood Authority. The development guidelines should be amended to recognise the presence of these culverts.

The site is also in the modelled 1 in 100 chance in any given year, including an allowance for climate change, flood extent, which has been included. The development guidelines state "more vulnerable uses should be kept from this part of the site" which is positive. However, the development guidelines lack any reference to the requirement for any built footprint within the 1 in 100 extent to provide level for level and volume for volume flood storage compensation. Provision of Flood Storage Compensation is vital to prevent an off-site increase in flood risk and there for must be included here as a requirement of the development.

We suggest you change the text in your development guidelines to include the below bullet:

This site lies in Flood Zones 1, 2 and 3 classified by the National Planning Practice Guidance as having a low, medium and high risk of flooding from rivers. Development of this site must be supported by a Flood Risk Assessment. For development on this site to be acceptable the FRA must show there will be no increase in flood risk on or off site and that the development will be safe for future users. In accordance with the sequential test, development should be focussed in areas of lowest flood risk. No highly vulnerable uses will be permitted in areas of Flood Zone 2 without passing the sequential test.

Development of this site will need to be supported by a Flood Risk Assessment. In order for development on this site to be acceptable it will need to show that there will be no increase in flood risk off site and that the development will be safe for future users. Any built footprint within the 1 in 100 chance in any given

year including climate change extent will be required to provide level for level and volume for volume flood storage compensation.

This site has been included in your SFRA but the site boundaries are marked differently.

SA62 Barber Wilson

We support the reference to the exploration of deculverting the Moselle Brook. For consistency with other sites with culverted main river we suggest the following wording, to ensure that if deculverting is not possible, appropriate mitigation is put in place:

The Moselle Brook runs in a culvert under the site. Development proposals must explore opportunities to de-culvert the Moselle Brook, with clear and robust justification provided if considered unachievable. No new buildings will be permitted within 8m of the edge of the culvert and it's condition must be commensurate with the lifetime of the development.

This site has not been included in your SFRA and should be included in Appendix A.

SA63 Broad Water Farm

The Moselle Brook culvert runs through this site, however it has not been mentioned in the text and is not drawn on the location plan. This must be amended as the proposed works have the potential to damage the culvert and the condition of the culvert must be assessed before commencement of development. The SFRA identifies the culvert condition as having brickwork missing in places, loss of mortar in brick joints, bulging to brickwork and tree works intruding in places. The development of this site may have capacity to undertake improvement works or deculvert sections. This needs to be explored and implemented if feasible.

To amend this we suggest you change the text in your development guidelines to:

The Moselle Brook runs in a culvert under the site and has been identified as being in a potentially poor condition. Development proposals must explore opportunities to de-culvert the Moselle Brook, with clear and robust justification provided if considered unachievable. No new buildings will be permitted within 8m of the edge of the culvert and it's condition must be commensurate with the lifetime of the development.

This site has been included in your SFRA. The SFRA wrongly identifies the site as including an EA asset. This should be amended as we do not own the culvert.

SA66 Leabank and Lemsford Close

The River Lee lies to the East of this site, however appears to be greater than 8m from the edge of the site.

Potentially contaminated sites in Source Protection Zones (SPZ)

AAP: SS1 , SS2, SS4, SS6, TG1, TH1 – TH10, BG1, BG2 - BG4, TG2, NT1, NT2, NT5,
Site Allocations: SA10 – SA20, SA22 – SA39, SA48 – SA50, SA55, SA58, SA60 – SA69

National Planning Practice Guide paragraph 005 states that Local Plans should be clear on the role of developers and requirements for information and assessments in considering land contamination. We note that some of the above sites highlight that a study into potential contamination should be undertaken. The design guidelines would

be improved highlighting that these sites lie in a Source Protection Zone as we will expect such sites to consider this receptor in any studies undertaken.

I hope you find our comments useful. I am happy to discuss our response over the phone or attend a meeting if you feel this would be beneficial.

Yours sincerely

Ms Jane Wilkin
Planning Advisor

Telephone: 020 3263 8052

E-mail: northlondonplanning@environment-agency.gov.uk

Based at: Ergon House, Horseferry Road, London, SW1P 2AL