

Barnet Local Plan EIP – Note on Water Management

Reason for producing this Note

On Day 5 (Wednesday 5th October) at the hearing session's, consideration of Matter 5 - Climate Change, Environmental Considerations and Green Belt, Inspector Philpott requested provision of a Note covering the following:

Policy ECC02A to encompass the following and including any resultant proposed modifications::

- 1. More comprehensive revisit of flooding in NPPF and recent updates to the PPG**
- 2. Reflect on approach to flood defences, clarify contributions/improvements required where there is a risk of harm to flood defences and also any proximity where development would not be permitted.**
- 3. Clarify that public amenity = public amenity space in EEC02A(b)(ii)**
- 4. Review interactions and consistency of table 19, ECC02A and the supporting text, together with associated justification of the Plan approach to flood risk assessments.**
- 5. Clarify Thames Water requests for planning contributions and also front-loading of s.106 in Table 19**
- 6. Is approach to SuDS justified and proportionate for different scales of development in ECC02A(h)**
- 7. Part (h) explain “where applicable” and criteria in second sentence**
- 8. London Plan references to greenfield rate in ECC02(g)**
- 9. Table 20: clarify link to Policy SI 5 London Plan**
- 10. Justification for (d), (f), (i) and (m) in terms of how contributions would work, as well as clarifying the expected sources of funding and identification of specific projects**
- 11. Consistency in part (m) and watercourses, reflect this in the supporting text**
- 12. MM266 and ECC02A(k), direct connections and additional criteria**
- 13. Should criteria in section 10.15 be reflected in the policy.**

Background

Barnet hosts nearly half of the headwater tributaries to the main River Brent (including the Dollis Brook, Silk Stream, Edgware Brook, Deans Brook, Folly Brook, Burnt Oak Brook and Mutton Brook). It also hosts tributaries of the River Lea (Lee) e.g. Bounds Green Brook and Pymmes Brook. This amounts to 14kms of streams and brooks, making the Borough subject to various types of flood risk including flooding from main rivers, ordinary watercourses, surface water, ground water and sewer flooding.

Following submission of the Barnet Local Plan in November 2021 the Council in June 2022 produced a table of proposed modifications (EXAM 4). This document was produced after consideration of the Reg 19 soundness representations received, together with subsequent discussions with parties on the drafting of Statements of Common Ground.

During the examination hearing session where Matter 5 was discussed, proposed modifications were considered. In light of that discussion, the Inspector has requested further clarification, explanation and justification of the matters detailed in this note; the Council now proposes a series of additional further modifications as set out below.

The following format has been used in this Note to denote further proposed modifications to the submission version of plan as revised by the proposed modifications listed in EXAM 4.

~~Strikethrough text~~ to indicate text proposed for removal.

Underlined text to indicate additional text.

Considerations

1. More comprehensive revisit of flooding in NPPF and recent updates to the PPG

In August 2022 the Government released an update to Flooding Guidance set out in National Planning Practice Guidance (NPPG) which ensures that is consistent with the National Planning Policy Framework (NPPF). In summary the Council sets out how the Local Plan will respond to these national changes with any necessary modifications. These headings are those of the Council (not the Inspector)

a) NPPF Requirements

The Plan preparation and policies are consistent with the requirements of the NPPF.

Paras 159 and 161 relate to directing development away from land that is susceptible to flooding, through the use of a sequential and exceptions test on allocated sites [EB_GI_18]. The recent update to the PPG further reinforced and clarified when and where the Sequential test needs to be applied eliminating any confusions about minor development. The majority of sites proposed for allocation in the Plan are on land in Flood Zone 1, where portions of sites are susceptible to flooding it is clear within the allocation text that development should be steered away to the lowest flood risk zones and that appropriate methods of water management should be incorporated into any development scheme proposed on the site.

b) Para 160

A Level 1 and Level 2 Strategic Flood Risk Assessments [EB_GI_15 & EB_GI_19] were undertaken in preparation of the Plan. Policy ECC02A was written in close collaboration with the Barnet Lead Local Flood Authority (LLFA) and in consultation with the Environment Agency. The Level 2 SFRA provided a recommendation to the Council relating to windfall sites, and with agreement with LLFA, it was decided to implement this into policy which requires developers to submit a Flood Risk Assessment for any sites within the flood extents of 1% AEP plus 70% climate change fluvial flood extent and/or the 0.1% AEP RoFSW flood extent. It doesn't aim to stop any development but enable development in a sustainable way considering the impacts climate change and urbanisation in the Borough.

Resourcing is the key constraint for this matter, however the changes to the National Policy and the adoption of the Local Plan should provide adequate justification for resourcing to be bolstered for effective implementation of the policy.

c) Para 161

Barnet's Local Plan is compliant with Para 161 in that it has undertaken sequential and exception tests on the allocated sites. Policy ECC02A identifies setbacks from water courses and recognises the importance of managing development within the Flood Zones 2 and 3

promotes natural management techniques. The policy also includes elements that take climate change into account.

Paras 162-165 relate to the Sequential and Exceptions Test, the use of the SFRA and the allocation of sites in the Local Plan. As previously stated the Sequential and Exceptions Test has been taken into account. The SFRA (especially the Level 2 SFRA) influenced the Sequential and Exceptions Test and the allocation of sites as required by these paragraphs of the NPPF.

Paras 166-169 relate to the application process are not relevant to the Policy development process.

d) NPPG

The Policy is consistent with the intent of the guidance set out in the NPPG. Since the publication of the Regulation 19 Plan the guidance has been updated and strengthened in relation to flooding and Sustainable Drainage Systems (SuDS). As set out below the Local Plan Policy remains relevant and consistent with national guidance.

e) Clearer requirements for multifunctional Sustainable Drainage Systems (SuDS)

While SuDS should already be considered the 'norm' on new development, further weight has been placed on use of above-ground, multifunctional SuDS. These are SuDS that offer biodiversity, amenity and water quality enhancements as well as the typical water quantity management element. The Government has also recently confirmed that Schedule 3 of the Flood and Water Management Act 2010 will be enacted. Schedule 3 sets out a framework for the rollout of drainage systems, a sustainable drainage system approving body, and national standards on design, construction, operation, and maintenance. It also makes the right to connect surface water runoff to public sewers conditional upon a drainage system being approved before any construction work can start.

While the Government is finalising the new rules for Schedule 3, ahead of implementation throughout 2024, it would be unwise of the Local Plan to provide more detail than already in the proposed policy as this could cause issues with the implementation of Schedule 3. DEFRA and the Council, as Lead Local Flood Authority (LLFA), will be issuing further guidance in the future and where clarification is needed for the policy and its interaction with Schedule 3, it can also be provided as part of a SPD.

f) Sequential and Exception Tests updated to consider surface water.

Greater focus has been given to surface water flood risk so surface water flood risk should be considered earlier and more holistically than before. The Local Plan and London Plan both recognise the importance of managing surface water and the Green Infrastructure SPD [EB_GI_10] provides guidance on its management utilising SuDS.

g) Definition of a functional floodplain (Flood Zone 3b) has changed from an annual probability of 1 in 20 (5%) or greater in any year to 1 in 30 (3.3%) or greater in any year.

With this change more land is likely to be defined as a 'functional floodplain' and no development is typically considered to be appropriate on land with this definition. The Plan policy does not require amendment in this regard as Policy ECC02A and supporting text refers to Flood Zones 1, 2 and 3 not a particular level of risk.

h) Increased promotion of Natural Flood Management (NFM) in new developments.

The NPPG has been updated to more strongly recommend the use of natural flood management (NFM). It now provides details on how techniques can be delivered, specifically encouraging the de-culverting and re-naturalisation of watercourses. The Local Plan encourages the use of NFM in paras 10.15.4, 10.15.7 and 10.15.8 as well as policy ECC02A (m). To promote the practice further the following modification is proposed to Policy ECC02A (b) ii) :

land adjacent to flood defences is protected in order to allow future replacement of defences, the introduction of natural flood management techniques and provision of public amenity and biodiversity;

Further detail on how natural flood defences could be applied in Barnet will be provided through an update to the Green Infrastructure SPD.

i) Clarification on replication of flood risk policies that are set out nationally.

The Council received criticism from the Environment Agency in their response to the Regulation 18 consultation for not setting out the national policies, relating to flooding relevant to the Borough, in the Plan. The Council responded to this criticism in the Regulation 19 Plan with Policy ECC02A which the Environment Agency commended. The only deviation from national advice was that the Policy ECC02A (c) (iii) requested that applicants provide a Flood Risks Assessment for applications that fell within the 1% AEP plus 70% climate change fluvial flood extent and/or the 0.1% AEP RoFSW flood extent.

j) Clarification on deviations from national policy

The Council highlights the following as the only deviation in the Policy from NPPF and NPPG:

Policy ECC02A (c) (iii) requested that applicants provide a Flood Risks Assessment for applications that fell within the 1% AEP plus 70% climate change fluvial flood extent and/or the 0.1% AEP RoFSW flood extent.

The reason for this deviation is that during consultation with the Environment Agency concern was expressed in relation to development occurring on windfall sites and how the Council would manage flood risk on those sites. The recommendation of the Level 2 SRA was to utilise the 1% AEP plus 70% climate change fluvial flood extent and/or the 0.1% AEP RoFSW flood extent. The full recommendation of the report was to require a site specific sequential test and flood risk assessment (FRA) to be undertaken. However the Environment Agency raised concerns that this was a too stringent requirement for sites within the Borough. The decision was therefore taken that require the submission of a FRA in support of the application for sites within this flood extent this is to enable the Council to determine the most sustainable methods for managing flood risk on the site and ensure that in accordance with national guidance it does not impact on surrounding sites. Concerns from the Environment Agency in regards to the impact on their workload as a result of the policy can be managed by clarification in the supporting text and with support from the Barnet LLFA.

k) Local Plan and the Sequential Test

The allocated sites have already been subject to a sequential and exceptions test in line with guidance at the time [EB_GI_19]. It is not intended that any further sequential testing would be required for the sites allocated in the Plan.

l) Clarification on what differentiates Barnet from the general national approach to flooding

As a Borough that hosts heads water tributaries of rivers Brent, Lea (Lee) and 33 critical drainage areas as well as having a varied topography, which influences the behaviour of surface water, there are significant areas of the Borough that are at various threat levels of flooding. Climate change has considerably increased that threat of flooding across the Borough. Development has a tendency to lower the amount of permeable surfaces which further increases the risk of surface water flooding. As Barnet has the highest housing targets within north-west London and hence an increased risk of flooding resulting from urbanisation this has to be managed through stricter policies.

Residents have reported to Council that even minor changes in permeable coverage of their local areas has resulted in increases in surface water runoff and some cases seriously impacted on the level of surface flooding experienced by individual residents. The Water Management policies are intended to assist the Council in working with developers to identify these risks and manage them. By future – proofing the policy it is hoped that this will ensure that the Borough is able to sustainably manage its water risk and therefore reduce the flood risk for both existing and future residents and this will also hopefully mean that costly large scale infrastructure interventions are not required.

m) Proposed modification to clarify implementation of Policy ECC02A (c) (iii)

10.15.3A

Development can change the flow patterns of surface water and either create new or exacerbate existing flood risk. To prevent areas of existing surface water flood risk worsening as a result of development the Council needs to be proactive. For this reason the Council requests that developers provide a Flood Risk Assessment (FRA) for sites with the following flood risks:

- A development site over 1 hectare or greater in size within Flood Zone 1
- A site within Flood Zones 2 or 3.
- A site within 1% AEP plus 70% climate change fluvial flood extent and/or the 0.1% AEP RoFSW flood extent
- Within an identified Critical Drainage Area

Once submitted to the Council as part of the planning application the FRA the Barnet Lead Local Flood Authority (LLFA) will be consulted. The Council and LLFA will work with the developer and where necessary the Environment Agency to determine the most appropriate methods of managing any flood risk on the site.

For sites within 1% AEP plus 70% climate change fluvial flood extent and/or the 0.1% AEP RoFSW flood extent, the purpose of submitting a FRA with non householder planning applications is to ensure that the site is developed sustainably and that any potential flood risk is managed as part of the development and to lower the likelihood of having to retrofit the development to manage flood risk in the future. Consultation with the Environment Agency will be at the Council's and LLFA's discretion.

2. Reflect on approach to flood defences, clarify contributions/improvements required where there is a risk of harm to flood defences and also any proximity where development would not be permitted.

In order to clarify the Council’s approach to flood defences the following new para is proposed at 10.15.1A:

Flood defences can be either a physical structures made of man made materials, engineered earthworks or natural flood management methods. Where a development proposal impacts directly on these works or within their immediate vicinity, and where it is considered that the development could impact on the functionality of the flood defence, early consultation with the Council and the Environment Agency should occur to agree methods of mitigation. Where the developer is unable to deliver the mitigation as part of the development a financial contribution should be negotiated at an appropriate level to deliver the mitigation where appropriate. Additional or new flood defences may need to be delivered as part of a development, this would be identified as part of the Flood Risk Assessment (FRA) for the site and such works would be necessary to provide opportunities to reduce flood risk.

3. Clarify that public amenity = public amenity space in EEC02A(b)(ii)

The Council considers that the land adjacent to flood defences is best left free of development to allow for defences to be replaced and access to the defences for maintenance purposes, when the flood defences are not needed to accessed for these reasons the area could be used as public amenity space and biodiversity enhancement.

The Council proposes the following modification to EEC02A(b)(ii) :

land adjacent to flood defences is protected in order to allow future replacement of defences and provision of public amenity space and biodiversity.

4. Review interactions and consistency of table 19, ECC02A and the supporting text, together with associated justification of the Plan approach to flood risk assessments.

The Council proposes to make the following modification to Policy ECC02A (c) (iii)

A non-householder application on a site within 1% AEP plus 70% climate change fluvial flood extent and/or the 0.1% AEP RoFSW flood extent

To provide further support for Policy ECC02A(h) the Council proposes a modification to Table 19 :

Table 19 – Flood risk, sustainable urban drainage requirements

Additional row

	Development Scale
<u>Where a development proposal will result in an increase of land covered by impermeable surfacing or alter the drainage pattern, SuDs</u>	<u>Minor and Householder</u>

<u>should be incorporated to ensure neighbouring properties are not impacted.</u>	
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5. Clarify Thames Water requests for planning contributions and also front-loading of s.106 in Table 19.

The Council proposes a modification to Table 19 - 1st column 4th row text as follows: Prior to planning application Developers should consult with Thames Water and /or Affinity Water to confirm that there is capacity in the water and/or wastewater networks and that their scheme will not increase the risk of sewer flooding to other properties. Confirmation of communication and infrastructure capacity ~~Pre-planning enquiries (including lack of sewer flood risk capacity confirmation)~~ and any agreed draft Section 106 obligations approvals with between Thames Water and/or Affinity Water and the developer that may result from the pre-application discussions should be submitted with planning applications.

6. Is approach to SuDS justified and proportionate for different scales of development in ECC02A(h).

The Council considers that the approach is justified and proportionate, London Plan Policy SI 13 Sustainable Drainage does not differentiate on development size and Policy SI 13C makes particular note of resisting impermeable surfaces even on small surfaces such as front gardens and driveways. London Plan para 9.13.1 notes that London is at risk from surface water flooding mainly due to the large extent of impermeable surfaces. Anecdotally there have been instances in the Borough where properties have experienced flooding due to an increase in surface water runoff from one neighbour due to increased amounts of impermeable paving following a garden redesign, this is therefore a matter that the Council as Lead Local Flood Authority takes extremely seriously.

7. Part (h) explain “where applicable” and criteria in second sentence, (and clarify supporting text).

The Council considers that not all householder applications will impact on runoff rates e.g. a roof extension or change of windows on a house in a Conservation Area. However it acknowledges that there are merits in providing further clarification in the Plan. It therefore proposes the following modification to ECC02A (h) and Para 10.13.9.

Amend ECC02A (h) . Proposals for minor and householder development incorporate SuDS where applicable necessary.

Amend para 10.13.9 as follows:

10.13.9 In 2015, the Lead Local Flood Authority (LLFA) was made a statutory consultee in planning for all major developments in relation to the management of surface water drainage. As part of this responsibility, the Council is required to ensure that sustainable drainage systems are put in place in accordance with Sustainable Drainage Systems: Non-Statutory Technical Standards. Further guidance on the use of Sustainable Drainage Systems (SuDS), is set out in the Council’s suite of design guidance SPDs. All major developments are required to

complete a SuDS Assessment. It will be necessary for minor and householder development to incorporate SuDS where it results in an increase in either site coverage or the level impermeable surfaces, and minor development should also demonstrate how the development proposes to incorporate sustainable drainage to ensure that the proposal does not create or exacerbate drainage issues onsite or in the area.

NPPG (Para: 055 Reference ID: 7-055-20220825) updated in August 2022 provides detailed advice on the delivery of sustainable drainage systems. Local Plan para 10.13.10 is therefore updated to reflect this.

10.13.10 The drainage strategy should aim to achieve greenfield runoff rates (via proposed SuDS measures and ensure that surface water runoff is managed as close to the source as possible. Preference should be given to on-ground sustainable drainage features, with all SuDS aiming to achieve wider ecology and biodiversity benefits, be multi-functional, green, and provide multiple benefits, such as biodiversity; and integrate into the Green Infrastructure network.

8. London Plan references to greenfield rate in ECC02(g)

The Council acknowledges that there are merits in providing further clarification on the cross-reference in the Plan. It therefore proposes the following modification to ECC02(g).

g). All major development incorporates sustainable drainage systems (SuDS) into proposals, and manage surface water run-off to achieve greenfield run-off rates where feasible and in line with the London Plan Policy SI 13B drainage hierarchy.

9. Table 20: clarify link to Policy SI 5 London Plan

The Council proposes a modification to Table 20 as it acknowledges that there are merits in providing further clarification on the cross-reference to Policy SI 5.

Table 20 Water efficiency requirements. Amend first row and add an additional row

New dwellings should be designed to ~~ensure that~~ achieve mains water consumption of a maximum 105⁵⁹ litres or less per head per day...in accordance with Policy SI5 Water Infrastructure of the London Plan.

Add additional row to ensure consistency London Plan Policy SI5

Incorporate measures to achieve lower water consumption – All new development

10. Justification for (d), (f), (i) and (m) in terms of how contributions would work, as well as clarifying the expected sources of funding and identification of specific projects

Clarification for justifying these requirements is set out as follows :

ECC02A d) The Council and the Environment Agency would need to work very closely with developers proposing to impact on flood defences or rivers and waterways. Mitigation of those impacts would be expected to be delivered as part of the development however in situations where the mitigation cannot be directly delivered by the applicant another party may be required to do so, s106 obligations would be secured to ensure delivery or payment of appropriate costs for delivery. The obligations would be site specific and any financial obligations would need to be finalised at the time of s106 being signed. Developers would need to include these costs into their Benchmark Land Value (BLV).

ECC02A f) Where appropriate developers should contribute to the projects set out in the relevant Catchment Partnership Management Plans for the development. The Catchment Management Plans have projects identified to improve the quality of the relevant catchment. If appropriate developers should assist in the delivery of these projects. The Council acknowledges that there are merits in providing further clarification. It therefore proposes the following modification to para 10.15.8

10.15.8 The Environment Agency has identified action measures for each WFD designated watercourse these relate to the catchments. There are three Catchment Management Plans that relate to Barnet. The Thames River Basin Management Plan (2015) sets out the objectives to improve waterbodies, developments near rivers and other waterbodies should demonstrate how it will assist in the achievement of these objectives. The London Rivers Restoration Action Plan and associated website (www.therrc.co.uk) also sets out opportunities to restore sections of the River Brent. The Brent River Corridor Improvement Plan 2014 aims to improve and enhance the rivers within the Brent River catchment. Where development is able to assist in the delivery of any projects this to deliver the action measures set out in the WFD and these Catchment Management Plans will be secured through conditions and /or s106 obligations.

ECC02Ai) Development proposals incorporating SuDS will need to include management and maintenance plans for the proposed SuDS, with appropriate contributions made to the Council where necessary. SuDS can be delivered as part of road and public realm improvements where this is the case or it is easier for the Council to incorporate and monitor the SuDS as part of the local flood management and road maintenance regime a contribution may be sought to assist its continued functionality. To clarify this the following modification is proposed:

10.13.10 The drainage strategy should aim to achieve greenfield runoff rates (via proposed SuDS measures) and ensure that surface water runoff is managed as close to the source as possible. Preference should be given to on-ground sustainable drainage features, aiming to achieve wider ecology and biodiversity benefits. The Drainage Strategy should also include how any SUDS are to managed and maintained and if necessary a s106 obligation made with the Council.

11. Consistency in part (m) and watercourses, reflect this in the supporting text

ECC02Am) Development proposals on or close to controlled watercourses naturalise the water course and ensure an adequate buffer zone of at least 10 metres (greater if a tall building is being proposed) and enable public accessibility. Buffer zones should include the creation of the appropriate riparian habitat and native planting and have a management plan to ensure long term biodiversity gains. Contributions towards river restoration and de-culverting will be expected. The Council and the Environment Agency are working together to manage flood risk in Barnet, one method which has proven to be effective elsewhere is to restore the river and wider riparian habitat which assists in slowing flood water flow rates and has the additional benefit of improving opportunities for biodiversity. Developers intending to develop on a river corridor should therefore liaise with the Council and Environment Agency on how they can assist in the delivery of these initiatives. These initiatives can be secured through s106. To clarify this the following modification is proposed:

10.15.3 All developments adjacent to a river corridor are expected to create a buffer between the water course and the built edge of the development (> of at least 10m in width is recommended but relevant site constraints will be considered), for instance, tall buildings may are likely to need to be set further back to prevent the deterioration of the riverine environment as a result of impacts such as overshadowing, wind and temperature. This will assist with any restoration initiatives and ensure a range of species can be supported by the water course and the riparian edges. Therefore the designs of the buffer zones created should illustrate how appropriate riparian habitat will be established including native planting and provide a management plan to ensure long term biodiversity gains. Developers should liaise with the Council and the Environment Agency on how best to assist in the delivery of any of the initiatives that are relevant to their site, s106 may be used to ensure delivery. Surface water should also be managed as much as possible onsite, any run off that does occur into the water course should be of a quality to assist the water course in being rated 'good ecological potential' as described in the WFD.

12. MM266 and ECC02A(k), direct connections and additional criteria

National Highways made a number of requests for specific wording in relation to the Regulation 19 Draft Barnet Local Plan consultation National Highways. This included additional text to manage environmental impacts arising from development occurring on or near the Strategic Road Network. Modifications [EXAM4] MM260, MM262 and MM266 were proposed as a result of this response. After further reflection during the EIP the Council is of the view that these modifications should be withdrawn in the absence of further clarification and justification from National Highways. The Council has sought the views of National Highways on these matters with clarification to be provided through a revised Statement of Common Ground.

13. Should criteria in section 10.15 be reflected in the policy.

The Council considers that Policy ECC02A – Water Management is an effective policy which is consistent with the supporting text in Section 10.15 Watercourses. Further modifications are not considered necessary for the implementation of the policy.

Conclusion

The proposed modifications to Policy ECC02A, supporting text and Tables 19 and 20 provide further clarity on the Local Plan's approach to water management.

The Council invites the Inspectors to consider and recommend that the Council makes the additional further modifications set out in this paper recognising that those considered to be Main Modifications will need to be formally consulted upon following the examination hearing sessions.