

Flood Risk Explanatory Note (March 2019)

Evidence base in support of Adopted Local Plan (2015)

1.1 The Legacy Corporation adopted its Local Plan in July 2015. Flood Risk evidence was prepared through an agreed approach with the Environment Agency at the time. A report 'Flood Risk within the Legacy Corporation Area – Information Review' (2013) was prepared by specialist consultants. Rather than undertake a Strategic Flood Risk Assessment (SFRA) for the Legacy Corporation area, it was agreed that it would be appropriate to rely on the SFRA's published by each of the four boroughs that were current at the time. This was considered by the Legacy Corporation to be an appropriate and proportionate approach to flood risk as borough SFRA's included their respective parts of the Legacy Corporation Area and production of a separate SFRA would simply duplicate the existing work, but for a much smaller geographic area therefore providing a less strategic approach. The formal representation made by the Environment Agency to the draft Local Plan at the time and outlining the acceptability of this approach is appended to this note. To support the draft Local Plan, a Sites Report was prepared that included a Flood Risk Sequential and Exceptions Test for each relevant site allocation proposed in the Plan.

- Flood Risk within the Legacy Corporation Area – Information Review (2013)
<https://www.queenelizabetholympicpark.co.uk/-/media/lldc/local-plan/local-plan-examination-documents/local-evidence-base-documents/leb15-localplanfloodriskreviewreport.ashx?la=en>
- Sites Report (including sequential and exceptions tests at Appendix 6)
<https://www.queenelizabetholympicpark.co.uk/-/media/lldc/local-plan/local-plan-examination-documents/technical-background-papers/tbp6-sites-report-2014.ashx?la=en>

Flood Risk Review (2017) and Addendum (2018)

1.2 A subsequent Flood Risk Review Report was prepared by consultants and finalised in January 2017 to take account of the publication of updated flooding data by the Environment Agency, to help inform the three area-based supplementary planning documents (SPDs) then being produced and in anticipation of the review of the Adopted Local Plan. The scope of the report was as below:

- To update information available in respect of the extent and level of flood risk within the LLDC area based on the most recent EA flood mapping and any other relevant available information.
- To within the percentage range specified for the Thames catchment within the Planning Practice Guidance, identify the approximate percentage of climate change allowance that should be considered for each key flood risk location (acknowledging that site/ development specific flood risk assessments will need to verify or update this at the point these are prepared in support of any planning application).
- To determine the approximate extent and depth of the flooding likely from a 1 in 100 year return period + climate change flood event in key flood risk locations within the area, including the locations for the three area based SPDs currently being prepared.

- Review and update the recommended measures and actions from the existing SFRA's and Sequential / Exception Tests for those locations.
- Update any breach assessments (of any existing flood defences) carried out in the original Borough SFRA's based on any new flood modelling and mapping available.

1.3 The report took account of the updated SFRA's produced by the London Borough of Newham and by the London Borough of Tower Hamlets.

1.4 The subsequent review of the Adopted Local Plan identified three additional site allocations that are now proposed to be included in the Revised Local Plan. As a consequence of this the Flood Risk Review Report was updated through production of an Addendum Report in 2018.

1.5 Formal Local Plan Regulation 18 consultation was undertaken prior to preparation of the 2018 Addendum Report. The Environment Agency response to this consultation welcomed the work undertaken within the Flood Risk Review Report 2017. It also identified the existence of an updated River Lee Flood Model and recommended that a Level 2 SFRA be undertaken for sites within the Local Plan (i.e. the level of SFRA that includes Exception tests where sites are proposed within Flood Zone 2 or 3).

- Flood Risk Review Report (including addendum):
<https://www.queenelizabetholympicpark.co.uk/-/media/flood-risk-study-and-addendum-report.ashx?la=en>

Flood Risk model and mapping issues

1.6 The Regulation 19 consultation on the draft Revised Local Plan was undertaken during November and December 2018. The Environment Agency representation in response to the specific issue of flood risk set out an objection to the Revised Local Plan based on the lack of an appropriate SFRA. Following discussion with the Environment Agency it became apparent that its officers did not consider that the Flood Risk Review reports were based on the most up to date flood model. Subsequent correspondence from the Environment Agency has suggested that it would only consider the Revised Local Plan to be sound in the event that a bespoke SFRA (Level 1 and 2) is prepared for the Legacy Corporation Area. This represents a departure from its previous position and is the first time that this view has been expressed.

Working being undertaken to remedy the flood risk model and mapping issue

1.7 Further investigation with the Legacy Corporation's consultants into the evidence reports in light of the Environment Agency correspondence during February 2019 has revealed that the flood risk mapping provided and used in the 2018 Addendum Report does not reflect the latest River Lee model. As a result, an updated Addendum Report is being prepared to incorporate the latest flood risk model data and mapping so that the sequential and exception tests for site allocations within Flood Zones 2 and 3 are accurate and up to date. This will be made available as soon as possible during the Local Plan Examination period.

Issue of the reliance on borough SFRA's and other data

1.8 The review of the 2018 Addendum Report has also identified that the flood risk data used for the LB Newham and LB Tower Hamlets most recent SFRAs is the most up to date information available and also uses the most up to date climate change allowances. These cover the majority of sites within the Legacy Corporation Area within Flood Zones 2 and 3. It is recognised that this is not the case in Hackney Wick where London Borough of Hackney SFRA dates to 2010. However, the Hackney Wick Masterplan planning application (for which the Legacy Corporation is both applicant and planning authority) has included a masterplan level flood risk assessment using the most up to date modelling and this covers available sites within this area and provides the relevant information.

Does the current updating of the addendum report affect sites allocated within the draft Revised Local Plan?

1.9 The work currently being undertaken to update the Flood Risk Review report and in particular its sequential and exception testing is expected to provide additional information that will ensure guidance is available to potential applicants and others based on the up to date flood risk model and mapping. It is not considered that this will result in the need to change the site allocations in the Revised Local Plan as currently drafted. What may change is the advice on the extent and depth of flooding that will need to be considered, including the appropriate climate change allowance, and potentially the guidance to approaches that are relevant to achieving an appropriate form of development and other mitigation measures and actions that may make development acceptable within those sites within Flood Zone 2 and 3.

Attachments

Appendix 1: Map of Flood Zones 1 & 2 with site allocation overlay and Map of Flood Risk with overlay of Local Plan employment land designations.

Appendix 2: Representations and correspondence

- Environment Agency Representation (Original Local Plan)
- Environment Agency Representation (Reg 18)
- Environment Agency Representation (Reg 19)
- Environment Agency letter January 2019
- Environment Agency letter February 2019

REPRESENTATION FORM

Personal Information or Professional Details	
Title	
Name	
Company/organisation	Environment Agency
Position	Planning Specialist
Address	Ergon House, Horseferry Road, London, SW1P 2AL
Telephone	
Email	
If you are an agent, please indicate who you are representing	

Your Representation					
To which part of the Local Plan does this representation relate (please mark in the appropriate box):					
Policy or paragraph number	Policy S.8 (including paragraphs 8.19, 8.20, 8.21 and 8.22).	Site allocation number		Map / figure number	
Do you consider the Local Plan is: (please mark yes or no in the appropriate box):					
Legally Compliant:	Yes	Complies with the duty to cooperate:	Yes	Sound:	Yes
Please give details of why you consider the Local Plan is not legally compliant or fails to meet the duty to cooperate or is unsound. Please be as precise as possible and set out what modification(s) you consider necessary to make the Local Plan legally compliant or sound. Please note that any non-compliance with the duty to co-operate is incapable of modification at examination. If you wish to support the legal compliance of the Local Plan, its compliance with the duty to co-operate or the soundness of the Local Plan, please also use this box to set out your comments.					
<p>We strongly support policy S.8 ‘Flood Risk and sustainable drainage measures’ which is a detailed policy setting out the requirements for developments to reduce fluvial/tidal and surface water flood risk (<i>please note 2 suggested <u>minor amendments</u> below to supporting text and evidence base list</i>).</p> <p>As shown by Figure 26 the LLDC area is affected by areas of flood zone 2 and 3 with hotspots located at Hackney Wick, Fish Island, Pudding Mill, Stratford Regional, the London Aquatics Centre and along the waterway channel and corridors. It is therefore essential that a robust flood policy is included in the Local Plan to set the general aspirations and general measures developments will be expected to deliver to reduce flood risk for current and future residents, businesses and visitors to the area. In doing so the policy is justified in taking on board the evidence from the Borough’s (Hackney, Tower Hamlets, Newham and Waltham Forest) current Strategic Flood Risk Assessments (SFRA). The LLDC’s Flood Risk Review 2013 reviews the current SFRA framework for the area. We believe this policy complies with paragraph 100 of the National Planning Policy Framework and policies 5.12 and 5.13 of the London Plan (2011).</p>					

We believe this section could be improved by demonstrating that the sequential test has been applied to the site allocations so that people are aware of this and know where to find the sequential test document and it should also be listed as evidence base to the Local Plan. We recommend the following minor amendments:

- 1) In addition, a sentence should be added to the 'reasoned justification' paragraph 8.20, following the sentence referencing the flood risk map Figure 26, as follows:

The sequential test and exceptions test has been applied to the site allocations in accordance with paragraph 100 of the NPPF (see Appendix 6 of Sites Report, 2014).

- 2) The '**Flood Risk and Sequential and Exceptions Test for the Site Allocations**' (Appendix 6 of Sites Report, 2014) should be listed on the Evidence Base References on page 141 as this is an important background, evidence document.

If you would like to be notified when the Publication Local Plan has been submitted for independent examination please **tick** the relevant box below to indicate your preferred method of notification.

Email: <input checked="" type="checkbox"/>	Post: <input type="checkbox"/>	Post and Email: <input type="checkbox"/>
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Please indicate here if you wish to speak at the public hearing on this matter and outline why you consider this to be necessary

No

FOR OFFICE USE ONLY (do not write in the boxes below)

REPRESENTOR NUMBER

ASSIGNED REPRESENTATION NUMBER

REPRESENTATION FORM

LLDC Ref: **PRN.031**

Personal Information or Professional Details

Title	Mr / Mrs/ Ms / Miss / Other (please indicate)
Name	[REDACTED]
Company/organisation	
Position	
Address	[REDACTED]
Email	[REDACTED]
If you are an agent, please indicate who you are representing	

Your Representation

To which part of the Local Plan does this representation relate (please mark in the appropriate box):

Change Reference Number		Policies Map	
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Do you consider that the Revised Local Plan is: (please mark yes or no in the appropriate box):

Legally Compliant?		Complies with the duty to cooperate?		Sound?	
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Please give details of why you consider the Local Plan is not legally compliant or fails to meet the duty to cooperate or is unsound. Please be as precise as possible and set out what modification(s) you consider necessary to make the Local Plan legally compliant or sound. Please note that any non-compliance with the duty to co-operate is incapable of modification at examination. If you wish to support the legal compliance of the Local Plan, its compliance with the duty to co-operate or the soundness of the Local Plan, please also use this box to set out your comments. (Please continue on a separate sheet if necessary)

If you would like to be added to our Planning Policy consultation database to be notified when the Revised Local Plan has been submitted for independent examination, notified of the Inspector's recommendation and the adoption of the Local Plan please tick the relevant box below to indicate your preferred method of notification.

Email		Post		Post and Email	
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Please indicate here if you wish to speak at the public hearing on this matter and outline why you consider this to be necessary.

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REPRESENTOR NUMBER	
ASSIGNED REPRESENTATION NUMBER	

Our main concern is that an updated Level 1 and Level 2 SFRA has not been produced, which is considered essential to provide the necessary evidence base to support this Local Plan. Sites should not have been allocated without an understanding of their level of current and future flood risk, which is why the assessment of the climate change is integral, otherwise this undermines the Sequential approach to site allocation. This is contrary to paragraph 156 of the National Planning Policy Framework (NPPF), where strategic policies should be informed by a strategic flood risk assessment, and should manage flood risk from all sources.

We also note that new sites have been proposed, and existing site allocations have been modified. Both Chobham Farm North and Three Mills new site allocations lie within areas at high risk of flooding and new housing is proposed, where no evidence has been provided that these sites have been sequentially tested. This is contrary to paragraph 157 of the NPPF, where all plans should apply a sequential, risk-based approach to the location of development, taking into account the current and future impacts of climate change, so as to avoid, where possible, flood risk to people and property. Moreover, Site Allocations SA3.1 (Stratford Town Centre West) and Site Allocation SA3.3: (to become Stratford Waterfront West South) propose a change in site boundary, resulting in a greater footprint with Flood Zones 2 and 3, and encroachment on the Waterworks River, designated main river.

In light of the above, we find the site allocations **not justified**, as local plans must be set on a robust and credible proportionate evidence base. The proposed sites are also **inconsistent with national policy**, because strategic policies must be informed by a strategic flood risk assessment in line with paragraph 156 of the NPPF.

London Legacy Development Corporation
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Date: 25 January 2018

Dear Planning Policy Team

Legacy Corporation Local Plan Review Consultation

Thank you for consulting us, this response has been prepared in response to the London Legacy Development Corporation Plan's 2 year review. For ease, this response refers to specific policies that will be titled and referenced throughout.

In general, we are pleased with the document and it is of a high quality, referring to key areas that we would expect to see in a development plan, addressing concerns such as water, flood risk and biodiversity, which were previously picked up in the 2015 consultation. There are, however, further inclusions that we would recommend to emphasise the importance of the water environment in future development, which are detailed below.

We hope this feedback is helpful as you continue to improve and update your Local Plan. We are happy to provide further support where needed. Please do not hesitate to contact me if you have any questions about this response or would like to set up future meetings.

Yours sincerely

████████████████████

Environment Agency

Direct e-mail hnl@sustainableplaces@environment-agency.gov.uk

Section 6 - Creating a High-Quality Built and Natural Environment

Objective 3: Creating a High-Quality Built and Natural Environment that integrates new developments..

It is positive to see the inclusion within Objective 3 that developments should:

“contribute to the green infrastructure network” and “help meet the targets set out in the Biodiversity Action Plans.”

However, **Objective 3** would benefit from, and should emphasise that development should contribute to meeting the targets of the Thames River Basin Management Plan (TRBMP) and the obligations of the Water Framework Directive (WFD); binding legislation which aims to protect and enhance the water environments. It is important to conserve and enhance biodiversity value through development

Strategic Policy SP.3: Integrating the natural, built and historic environment (Page 70)

The details specify targets for developments relating to pressures in the area, including, for example, air quality. It is strongly recommended that reference is made to minimising potable water consumption and managing demand. This should be a key focus of any development, especially as LLDC is situated within an area of **‘Serious’ water stress**.

Whilst managing water use and WFD are referred to later in this policy document, it would be recommended that they are emphasised from the beginning, so that their importance is recognised and highlighted. This inclusion would be in line with the level of detail included for similar pressures. Additionally, it is strongly recommend that these aspects are carried through into, and underlined, in the **Policy BN.1: Responding to place (Page 72)**.

It is recommended that the supporting text to this section, and **Strategic Policy SP.3: Integrating the natural, built and historic environment (Page 70)**, outline the objectives of WFD and detail why reducing water consumption is of critical importance in London development. Inclusion of these two aspects would reinforce policy references to both this document and the London Plan.

SP.3, 4 - should also aim to ‘enhance biodiversity and created new habitats’ and not solely protect.

Policy BN1: Responding to Place

We are unclear what is meant by “relate well” This should be more specific in terms of ensuring that proposals enhance landscape features including waterways

Policy BN1, 4 – connectivity should also include connecting habitats to provide wildlife corridors.

Policy BN.2: Creating distinctive waterway environments (Page 74)

It is positive to see the reference to the TRBMP, WFD and Sustainable Urban Drainage Systems (SuDS) mentioned within the policy and supporting text. It is positive to note the policy recognises the importance that new development has on delivering these goals. This section would particularly benefit from the recommended inclusions outlined above, strengthening their presence through the overall vision and strategy for development in LLDC.

Policy BN2 has an opportunity to include the restoration of watercourses to a more natural state. For example softening of hard banks, deculverting, 8m wide naturally managed buffer zones for wildlife.

6.13 – Please be aware there is a new 2017 Biodiversity Action Plan for Lee Valley Regional Park Authority.

“Effective setback” should ideally also specify inclusion of a naturally managed buffer zone along the banks of watercourses, and a minimum width for this (8m), rather than just set back of buildings. This is required for access to carry out maintenance, inspections and remove obstructions if necessary. The operational machinery and vehicles we may need require this width. Also our consent is required for any works within 8 metres if main river. An optimum width to provide a natural green buffer zone for wildlife that use river corridor as habitat or migratory route.

Policy BN.3: Maximising biodiversity (Page 76)

Whilst it is positive to see the inclusion of supporting measures in line with the Biodiversity Action Plans (BAPs) in this policy section, it should also be stated that this policy would benefit from supporting WFD measures, these can specify objectives such as naturalisation of watercourses to enhance biodiversity value of waterways.

This policy should outline the need to deliver environmental improvements outlined in the TRBMP, as a critical way of improving the biodiversity of the riparian and surrounding environment, which could be implemented alongside measures found in the BAPs.

Policy BN4, 4 - We recommend the inclusion of green roofs and walls to enhance biodiversity value

Section 8 – Creating a Sustainable Place to Live and Work

Objective 5: Deliver a sustainable and healthy place to live and work

An addition could be made to, “Provide resilience to biodiversity / wildlife through opportunities provided through development”.

Policy S.5 Water supply and waste water disposal (Page 133).

It is positive to see that water supply and waste management are a main policy consideration. However we would recommend the following to be rephrased, with justifications provided below:

“encourage localised and building-specific measures to reduce potable water demand and use”

This section should also reference the need to retrofit retrofitting existing buildings for increased water efficiency. Retrofitting can achieve a considerable decrease in demand on water resources, as existing buildings are typically less water efficient.

It is recommended that retrofitting is completed in line with the BREEAM standards. The BREEAM standards are available for refurbishing domestic and non-domestic buildings, and should be reflected in the supporting text of this policy. Moreover, we would strongly encourage new developments to achieve the BREEAM excellent rating for water. This could be incorporated into how development “demonstrate they maximise opportunities to reduce potable water demand and use”.

“Proposals for major development will be expected to demonstrate that they maximise opportunities to reduce water demand.....”

It is important that **all** developments demonstrate that they maximise water reduction opportunities as each development will have an impact. Additionally, the term ‘major development’ is open to developer interpretation. We would strongly recommend quantifying what constitutes a major development.

“Where feasible and viable, for domestic use, it should be demonstrated that those measures are capable of achieving a design standard of water use less than 110 litres a day....”

Section 5.61 of Policy 5.15 of the London Plan states “Residential development should be designed so that mains water consumption would meet a target of 105 litres or less per head per day”. This allows for an additional 5 litres per person per day for external use .

Therefore it is recommended that the above reference to incorporating the 110litres per person per day “where feasible and viable” is updated to reflect the binding commitment detailed within the London Plan, in relation to water consumption. Rather than implying that the commitment is optional.

Point 8.12 (Page 134)

Whilst it is positive to note that the supporting text states that London needs a strategy to meet its growing demand for water due to increases in development and population, this is only half the problem. The supporting text should also highlight that the water resources available in London will change as a result of climate change. We are anticipating drier summers and wetter winters with shorter, more intense rainfall events which reduce the long term availability of water. This additional risk should be incorporated into the supporting text of **Section 8.12**.

Point 8.14 (Page 134)

It is positive to see requirement for developments to consider the capacity of existing infrastructure for water supply and waste. However it should be emphasised that this should be carried out in consultation with the water supplier and waste water treatment companies.

Local Authorities need to consider and assess the impact of their growth plans on the capacity of the waste water treatment and conveyance network and ensure their planned growth is planned and phased in tandem with required infrastructure upgrades. We will want to see evidence of this 'assessment' in a standalone study or as part of the Sustainability Appraisal/Integrated Impact Assessment. It will require consultation with Thames Water to ensure this is assessed and demonstrated. We welcome the inclusion of this in the supporting text and **Policy S.5**.

Over burdening of water and waste infrastructure will exacerbate problems associated with water demand, and overburdened waste water infrastructure could lead to pollution incidents. This is of particular importance for LLDC, as this area is underlain by a number of groundwater Source Protection Zones (SPZs).

These are zones which surround an abstraction point for potable water supply and therefore require careful protection from potential contamination or pollution. There are a number of SPZs 1-3, that span across the LLDC area. It is strongly advised that measures are outlined which seek to protect these SPZs during and post development. This should be incorporated in to the above policy **Point 8.14 (Page 134)**.

Policy S.8: Flood risk and sustainable drainage measures (Page 139)

We are pleased to see that the Local Plan update will still include a policy to address flood risk. We still support Policy S.8 for 'flood risk and sustainable drainage measures' contained within the 2015 Local Plan and would expect to see this policy transferred to the updated Local Plan, with the LLDC's approach to flood risk being built on even further. It is good to see that the Local Plan has already made the link between flood risk & sustainable development.

We would be particularly keen to see the following, taken from the 2015 Local Plan, transferred across to the update: 'Where development is proposed on a site that includes an existing flood defence structure, development proposals should be designed to maintain the integrity of the existing structure. Where the need for new or improved flood defences have been identified, relevant planning applications should demonstrate that allowance has been made for the relevant works to take place, including sufficient access for construction. Where a development proposal is dependent on the provision, improvement or repair of a river wall or other flood defence structure, these works should be included within the development applied for within the planning application'.

We are additionally pleased to see the Local Plan has acknowledged changes in flood risk mapping and the approach to assessing climate change allowances. Details on how climate change will be addressed have not been provided, but we would like to make clear that the Local Plan should set out policies for adapting to current climate change, i.e. increase in flood risk, not just what measures can be taken to reduce emissions and minimise future climate change.

As the Local Plan is proposing some strategic sites in flood zone 2/3. We would like to highlight that our latest Lee model is available and climate change allowances should be

applied to it to ascertain the impacts of climate change. A Level 2 SFRA should be produced for the strategic sites/areas at risk of flooding and addressing surface water flood risk, without this the Environment Agency may find the application unsound. This would also save a considerable amount of time for developers when they submit their planning applications, as experience shows that often the implication of the climate change allowances is not taken into consideration at an early enough stage, which then causes delays whilst designs are amended to try and address the subsequent increase in flood extent / levels.

It would be greatly beneficial if a Masterplan, following similar principles as the Hackney Wick Central Masterplan, be produced for the allocated sites where there is a high risk of flooding.

The Hackney Wick Masterplan has already allowed some development sites to go ahead, when previously they would have been unable to do so due to flood risk constraints. However, the Masterplan's approach of looking at a wider area so that building footprint and flood storage compensation space can be shared between different developments has enabled development to go ahead on sites where it was previously not possible to meet the necessary flood risk requirements within the site boundary. An example of an area that could benefit from this approach would be **Hepscott Road**.

Recommendations for policies

We would like to see a policy prohibiting undercroft flood storage or attenuation tanks, and promoting level for level and volume for volume flood storage compensation at all opportunities. A number of recent planning applications (particularly within the Hackney Wick and Fish Island area) have come forward suggesting attenuation tanks as a form of flood storage compensation, which is something we are keen to avoid apart from in exceptional circumstances, and should not be considered as a first option.

It is positive to see the inclusion of SUDs and corresponding management strategies in **Point 8.21 (Page 140)**. However, it is recommended that, within this policy and its supporting text, it is detailed how SUDs have a multi-functional capacity to benefit biodiversity and water quality, not just flood resilience. It is positive to see that buffer strips are proposed, however, a minimum width of 8m where possible, should be specified.

Sub Area Policies

It is recognised that there are four Sub Area Policies within the LLDC Plan. Within the Sub Area Policy documents, there have been a number of site allocations for development.

Sub Area 1 - Hackney Wick and Fish Island

For the Hackney Wick Station Area the Local Plan should ensure that the Hackney Wick Central Masterplan is supported.

Hamlet Industrial Estate – we recommend a specific policy for this area to be introduced (in line with previous Policy S.8) so that that developers look to update/improve flood defences.

Bream Street – this area is entirely covered by Flood Zone 3 , the provision of flood storage compensation is a constraint to any development within this area. Therefore, we strongly recommend a policy be introduced for this area that states there will be no increase in built footprint from the existing. We would also like to see a policy that restricts any more vulnerable uses on the ground floor

P.149 – opportunities should include enhancement of biodiversity value of waterways

P.152 – Waterways and open spaces , renaturalisation of banks and buffer zones should be incorporated in the plans for the site to ensure net gain in biodiversity and to meet the aims of the Water Framework Directive. Banks should be softened and banks planted naturally to provide a natural edge to the waterway, alongside buffer zone provision.

Sub area 3- Central Stratford and southern QE Olympic Park

Stratford Waterfront, Greater Carpenters District and Bridgewater Road – we recommend a specific policy be introduced to seek contributions to raising / improving defences. Positive work to replace the flood defences at Strand East (along Sugar House Lane) has already been undertaken, and it would be beneficial if this could be used to set a precedent for future development within the area and in close proximity to the flood defences.

P.202 Site Allocation SA3.2 – Stratford Waterfront East

P.204 Site Allocation SA3.3: Stratford Waterfront West

P.205 Site Allocation SA3.4: Greater Carpenters District

P.207 Site Allocation SA3.5: Bridgewater Road

The below principles should be added to the above site allocations, and any other site allocation situated alongside main rivers.

- Waterways must not be overshadowed by tall buildings
- A buffer zone of minimum 8m width must be provided alongside the waterways. This buffer zone should aim to be as soft and naturally managed to provide a continuous wildlife corridor alongside the river
- Opportunity to soften the river bank to be taken, in line with Thames River Basin Management Plan.
- The waterways and adjacent buffer zone must be kept intrinsically dark (artificial light spill below 2lux) to ensure migration and foraging pathways for nocturnal wildlife.

WFD

It is important to recognise that, in the LLDC Plan area, there are two water courses that are designated under WFD. Their details and classification status are present below:

Watercourse	Waterbody ID	2016 WFD Ecological Classification
Regents Canal	GB70610510	Moderate
Lee (Tottenham Locks to Bow Locks/Three Mills Locks)	GB106038077852	Bad

It should be noted that some of these site allocations fall within, cross or run along the boundaries of WFD water bodies. WFD requires the UK to prevent deterioration of the status of surface water bodies and groundwater bodies and, through the River Basin Management Plan, identifies the actions and measures needed to maintain and improve the status of all water bodies.

As a result, development plans need to recognise that they must not cause deterioration in the classification of a water body and, where possible, contribute towards improvements. We would expect these Sub Area Policies to provide a detailed list of measures for implementation which are appropriate to the proximity of site allocations. A list of relevant measures are attached with the following document (LLDC Measures_Final.xml). These are reviewed and updated; developments should request an up to date list via our Customers and Engagement team. request as appropriate.

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January 2019

Dear Planning Policy Team

**London Legacy Development Corporation Revised Local Plan (Regulation 19).
Meeting follow up and flood risk document review.**

Thank you for your request and meeting with us to discuss our regulation 19 response on the 18th of January 2018. We hope you found the meeting useful. In this letter we include our meeting notes and as agreed, our comments following a review of the document 'Flood Risk Review Addendum 2016-0142' (Issue 3, dated 30th October 2018).

Meeting notes

Attendees

██████████ (LLDC Director of Planning Policy and Decisions)
██████████ (LLDC)
██████████ (Environment Agency, PSO)
██████████ (Environment Agency, Sustainable Places)
██████████ (Environment Agency, Sustainable Places)
██████████ (Environment Agency, Sustainable Places)

Strategic Flood Risk Assessment (SFRA)

The SFRA pre dates climate change allowances, these aren't modelled and they need to be. LLDC understood that the other 4 LPA's would do the SFRA's for their area – agreement with EA in the past? EA to check history of this.

LLDC submitted a flood risk addendum (LLDC Flood Risk Review Summary Report, addendum 3, Oct 2018) (<https://www.queenelizabetholympicpark.co.uk/-/media/flood-risk-study-and-addendum-report.ashx?la=en>) dated 2017 – a flood risk review of the area based on SPD's (this hasn't been reviewed as part of our Reg 19 response). This report should contain sequential / exception tests for new sites.

Cont/d..

Flood Risk Policy

We discussed that that minor wording changes are required to make FRA requirements less ambiguous, and therefore in line with national policy – LLDC happy to review this.

Groundwater Policy

We discussed that that minor wording changes are required to make the policy more specific to groundwater, and therefore in line with national policy – LLDC happy to review this.

Points of clarity and accuracy

We discussed that we suggested WFD/ RBMP amendments for a number of policies (currently only mentioned briefly). Discussed importance of incorporating this as much as possible, and discussed its inclusion in both policy and supporting explanatory text. Possibility of cross referencing policies so they link to each other where relevant to save repetition– LLDC happy to look into this.

LLDC local plan timeline

Currently reviewing regulation 19 comments / preparing for schedule of minor changes, examination in March. CIL regulation 15/16.

EA explained to LLDC that if the modelling in flood risk addendum report is not acceptable, then they will need to allow more time for us to review modelling etc (modelling and forecasting modelling reviews can take up to 2 months or more).

Actions

- LLDC to contact ARUP to begin conversations about possible work needed towards a satisfactory SFRA / flood risk modelling.
- EA to review 'Flood Risk Review Addendum 2016-0142' (Issue 3, dated 30th October 2018) as soon as possible, and get our comments back to LLDC to determine whether more work is needed.
- EA/LLDC to determine whether other local plans have the modelling needed for the site allocations in flood zones – i.e. Newham Sep 2017 SFRA, Hackney Wick masterplan has modelling.
- Possibility of setting up a charging agreement to review a revised SFRA if needed.

Flood Risk Report Review

We have reviewed both Arup's original Flood Risk Review (Jan 2017) and also the addendum (October 2018). Following a review of this document, our comments given at regulation 19 consultation remain unchanged.

The report and it's addendum have not identified any fluvial flood risk modelling covering any of the site allocations that incorporate the appropriate climate change allowances. This is a fundamental and required evidence base to determine future flood risk. Therefore, an adequate assessment of future flood risk, for which to base any Sequential Test on when allocating sites, has not been undertaken.

Paragraph 009 of the Planning Practice Guidance (PPG) for Flood Risk and Coastal Change requires Strategic Flood Risk Assessments to take into account the impacts of climate change:

'A Strategic Flood Risk Assessment is a study carried out by one or more local planning authorities to assess the risk to an area from flooding from all sources, now

and in the future, taking account of the impacts of [climate change](#), and to assess the impact that land use changes and development in the area will have on flood risk.'

And as stated in Paragraph 158 of the National Planning Policy Framework (NPPF), the SFRA is a fundamental evidence document to support the sequential test:

'the aim of the sequential test is to steer new development to areas with the lowest risk of flooding. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding. The strategic flood risk assessment will provide the basis for applying this test. The sequential approach should be used in areas known to be at risk now or in the future from any form of flooding'.

Unfortunately, due to the lack of an SFRA that assesses flood risk using the correct climate change allowances to account for future risk, we do not believe that the Sequential Test can have been properly applied.

As far as we are aware, none of the London Boroughs covering the areas within the LLDC's remit have undertaken any updated flood modelling applying the correct climate change allowances. However, detailed fluvial flood modelling with the correct climate change allowances has been produced covering the Hackney Wick Master Plan area.

Moving forward

From what we understand, there is currently some uncertainty as to who is responsible for doing an update to the SFRA - the Borough Councils or the LLDC. It was raised at the meeting that there was previous mention that the Environment Agency stated that each borough would be responsible for producing an SFRA for the areas of land that fall within the LLDC. However, we are unable to find such record. Please do let us know if this isn't the case.

We are minded that as the SFRA is required in order to support the LLDC's Local Plan update, then we believe it would be your responsibility to ensure that your local plans supporting information and evidence base is sufficient. We are aware that the London Borough of Hackney are not intending on doing a complete SFRA update as the main area of flood risk within Hackney's boundary is Hackney Wick, which falls under the planning remit of the LLDC. Paragraph 001 of the PPG for Flood Risk and Coastal Change also states that:

'local planning authorities undertake a Strategic Flood Risk Assessment to fully understand the flood risk in the area and to inform Local Plan preparation'

In which case the LPA would be LLDC, suggesting production of an SFRA would be their responsibility. We appreciate that you are working towards local plan examination deadlines, however, we will find this plan unsound until a satisfactory SFRA is produced. We can offer a review of an SFRA and continued planning advice and support under our charged planning advice service. Please do get in touch for more information.

Should you have any queries regarding this response, please do not hesitate to contact me.

Yours sincerely

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February 2019

Dear [REDACTED]

Thank you for your email dated 5th February 2019. We have reviewed our representation at regulation 19 for your previous local plan 2015-2031 (adopted July 2015).

At the time of your 2015 local plan, the data available from the Strategic Flood Risk Assessments (SFRAs) of Hackney, Tower Hamlets, Waltham Forest and Newham was sufficient to support your plan and allocated sites. However, since your local plan in 2015, new climate change allowances have been introduced in February 2016 and the data from the SFRAs of the local authorities within LLDC may now not be necessary up to date.

Consequently, we believe the approach taken for your Local Plan 2015 cannot be used for the recent review of your plan and an up to date SFRA, based on the best available data and taking climate change into account, is required to support your plan. In our response to Regulation 18 for your Local Plan Review, we also raised concerns regarding the need for you to undertake your own SFRA to support and inform your plan.

Whilst there may be the opportunity for you to use modelling undertaken by third parties and/or local planning authorities within the LLDC, you would need to make sure that any gaps in this modelling are addressed and your evidence base is sufficient to support your plan.

As you are allocating sites for future growth within flood zones 2 and 3, a Level 1 and 2 SFRA will be necessary to apply the sequential and exception tests. Without this work, your plan will not be justified, effective or consistent with national policy, and therefore unsound.

Cont/d..

We look forward to continuing to work with you on your local plan review and supporting evidence base. If you would like us to review a flood risk evidence base document, we can offer this under our charged planning advice service.

Should you have any further questions please do get in touch,

Yours sincerely

██████████
Sustainable Places Planning Advisor

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