

**MATTER 5 – THE ENVIRONMENT, CLIMATE CHANGE, FLOOD RISK,
POLLUTION AND WASTE MANAGEMENT**

1. The Inspectors appear to have decided not to discuss the environment or climate change, but only to give time to flood risk. We note this with regret. We would draw attention, for example, to the likely effects on wildlife in the Lower Lea Valley, including protected species of bats, of the developments proposed adjacent to the Valley. Amongst other things the height of the buildings proposed would give rise to light pollution in the Valley.

COMMENTS ON FLOOD RISK SEQUENTIAL TEST STATEMENT

2. In addition to LPE30 and the Statement itself (“LPE34”) and the NPPF we may also refer to the following documents:--
 - Planning Policy Guidance “Planning and Flood Risk” revised 25.8.22: “the PPG”.
 - “Making Space for Water”, Department for Environment Food and Rural Affairs (March 2005)
 - Waltham Forest Council Level 2 Strategic Flood Risk Assessment (prepared by Scott Wilson, dated May 2011): “the Scott Wilson report”
 - “Managing Flood Risk in the Lower Lea Catchment”, Environment Agency (2013)
 - London Borough of Waltham Forest Level 1 Strategic Flood Risk Assessment (prepared by AECOM, dated October 2018): “the Level 1 SFRA”
 - London Borough of Waltham Forest Level 2 Strategic Flood Risk Assessment (prepared by AECOM, dated October 2021): “the Level 2 SFRA”
 - London Borough of Waltham Forest draft Flood Investigation Report into floods on 25.7.21 and 7-8.8.21¹: “the Flood Report”.
 - Waltham Forest Local Plan (LP2) Draft Site Allocations Document (Reg 18) October 2020 Consultation Report Schedule of Comments: “the Consultation Report”.

Background

3. The River Lea runs from North to South down the Western edge of the Borough, and across the Borough there run (broadly from East to West) a number of streams, including the River Ching (or Ching Brook) which is not culverted, and also culverted streams such as the Fillebrook.

¹ The draft report is at https://www.walthamforest.gov.uk/sites/default/files/2022-02/Section%2019%20Report%20July%20August%202021_DRAFT.pdf. Our searching has not found a finalised version of this report.

4. The Lea has a catchment area of about 1415 km² (Scott Wilson report, 3.1.1) and the geology of the Lower Lea Valley is London Clay, which has low permeability (Scott Wilson report, 3.1.3) so that in the event of heavy rainfall relatively little water will be absorbed by the ground.
5. The current standard for assessing flood risk is 1% Annual Exceedance Probability (that is a risk of floodwater rising above river banks etc once in 100 years) with the risk being assessed on the basis of past experience/the present position, **plus** an allowance of 17% or 27% for the likely effects of climate change (Level 2 SFRA, 2.1.6-2.17; LPE34, 2.2.3 “central” and “higher central” allowances).
6. Scott Wilson’s work included a walkover of the main flood defences protecting the Waltham Forest area. They reported

“A walkover of the main flood defence network . . . suggests that the standard of protection associated with parts of the Ching Brook and Dagenham Brook is less than 1 in 20 years. The River Lee Flood Relief Channel offers a slightly improved standard of protection, estimated as approximately 1 in 50 years however these standards highlight the actual risk of flooding which is present within Waltham Forest.”²

These assessments of risk (1 in 20 years, 1 in 50 years) do not include any allowance for climate change.

7. The Environment Agency, writing in 2013, said

“Along the FRC [that is, the River Lee Flood Relief Channel] the design standard of protection of 1.4% has already fallen to 3.3% in places and is likely to decline further as the predicted effects of climate change occur.”³
8. The Council’s current Level 1 SFRA says that the standard of protection from the River Lea flood defences varies from 1 in 2 years to 1 in 70 years (Level 1 SFRA, 2.11.1) and for the Dagenham Brook flood defences from 1 in 5 years to 1 in 200 years (Level 1 SFRA, 2.11.2). It appears that, once again, these figures do not make any allowance for the effects of climate change.
9. In July 2021 there was flooding along the route of the Fillebrook, which (amongst other things) required the evacuation of patients from Whipps Cross Hospital. According to Environment Agency data the rainfall was a 1 in 17-year event (6% AEP) (Flood Report, page 21). The Council’s Flood Report (page 21) argues that the rainfall was a 1 in 170-year event, but we submit that it is relevant that Thames Water Utilities (which is responsible for surface water drainage) has confirmed that throughout the Borough the surface water sewer system is only designed to withstand a 1 in 30 year event (Flood Report, page 25).
10. Scott Wilson estimated (in 2011) that in a 1 in 100 year (with allowance for climate change) event the residential areas located in the vicinity of the Lea Bridge Road would be flooded to typical depths of between 0.25 metres and 0.5 metres (Scott Wilson report, 4.5.5-4.5.6).

² Scott Wilson report, Executive Summary (page i) see also 2.3.2 and 3.1.5.

³ “Managing Flood Risk in the Lower Lee Catchment”, page 17. In 2017 the banks of the FRC were strengthened in Walthamstow, but not further South in the Lea Bridge area. (Here we rely on Ms Weiss’ submission.)

11. To our knowledge, there are persistent drainage problems in Hibbert Road, which is just North of the Lea Bridge Road and next to the Dagenham Brook.

Starting point for the Sequential Test

12. In order to carry out the sequential test properly, the Council would need not just to consider sites which had been put forward by landowners or potential developers, but **all** the sites within the Borough which could reasonably be made available by persuasion or inducement or if necessary by use of the Council's powers of compulsory purchase. The Council should have gone out and walked the streets, looking for parcels of land which are manifestly underused.
13. In LPE34, the Council pays lip-service to this starting-point by Appendix A (pages 34ff.) However, Appendix A is a complete rag-bag – some part of the Council's organisation has kept a list of all the pieces of land which have been mentioned to it. (There are a good number which we cannot identify – the writer's favourites are MA31 on page 24 and MA35 on page 34 which have no descriptions -- and it is only the writer's own local knowledge which identifies "Car park off of [sic] Barclay Rd", LEY76 on page 32, as the car park belonging to the flats at Silks Court. The most surprising inclusion is a medieval church which is listed Grade II*.⁴)
14. In the absence of proper survey by the Council, it is only local knowledge which can suggest sites that should have been included, or at least should not have been ruled out without proper consideration of pro's and con's. However, we believe that the following sites in Leytonstone each represent a whole type of sites which the Council has failed to consider:--
 - The former NUMAST office (which we think is 750A High Road, E11), in the Council's Leytonstone Town Centre "strategic location" but not in the list
 - The row of low-rise houses and gardens on the NW side of Kirkdale and Lemna Roads, East of Waltham House (which we think are 2-28 (evens only) Lemna Road), in the "strategic location" and suited for five-storey mansion blocks but not in the list⁵
 - The low-rise school which was built on the former tennis courts between Vernon and Harrington Roads (George Tomlinson Primary School), not in the list
 - The pub between Leytonstone Fire Station and the former Police Station (The Bell, CAH53, page 31 "Unsuitable for development")⁶
 - The large warehouse-type building with a big car park between Hollydown Road and the A12, just South of Cathall Road (the Construction Skills Centre, CA24, page 25 "Unsuitable for development")

⁴ Chingford Old Church, E28 on page 37

⁵ We understand these are Council houses. Conservative Councillors point out that with two exceptions the Council has not included its own housing estates (Consultation Report, pages 23-24, points 7-8, see also page 26 "Chingford Mount – Additional opportunity").

⁶ See also for instance Mr Mike Chrimes, Consultation Report, pages 58-59, pointing out the Greene Man pub in Chingford "occupies a site much larger than is required for its current purposes".

- Langthorne Health Centre, which is a sprawling single-storey building and car park (CA07, page 28, “Retention of health facilities”).⁷

15. We appreciate that (although this has been done in the past) there are strong objections to the compulsory purchase of people’s homes for redevelopment and that the residents of Lemna Road would have to be rehoused appropriately, and close to their previous homes. We appreciate that schools need playgrounds, and that there would be issues about how to house the school, or the GP surgeries etc at the Health Centre, while their premises were demolished and then rebuilt on part of their previous site. We want to see pubs preserved, and accept that there would be difficulties in maintaining the business from a substitute location while the pub premises were rebuilt. But these are points to be considered and balanced against the need for housing sites in a transparent way, in a proper Sustainability Appraisal.⁸ The process should not be simply “It’s a health centre – put an R in the box and move on to the next site”.⁹

Process of the Sequential Test

16. First, the PPG requires an approach that considers together flood risk from all sources:

*“What is the aim of the sequential approach? . . . This means avoiding, so far as possible, development in current and future medium and high flood risk areas **considering all sources of flooding including areas at high risk of surface water flooding**. . . . Other forms of flooding need to be treated consistently with river and tidal flooding in mapping probability and assessing vulnerability, so that the sequential approach can be applied across all areas of flood risk.”¹⁰*

The approach the Council has taken (LPE34, 2.2.2) involves ticking a list of separate boxes, and ranking those sites for which the next box in the list is not ticked above those for which the next box is ticked. What is wrong with this box-ranking and box-ticking approach can be seen by observing that because surface water flood risk is a box placed lower in the Council’s list than risk from river flooding, the Council’s approach promotes the Whipps Cross site which is in Flood Zone 1 for sea/river flooding but is at high risk for surface water flooding.¹¹ We submit that there is

⁷ See also the other health centres mentioned by Malcolm Souch, Consultation Report page 34.

⁸ See paragraph 19 of this submission.

⁹ Compare PPG para 31: *“It would only be appropriate to move on to the Exception Test . . . where, accounting for wider sustainable development objectives, application of relevant local and national policies would provide a clear reason for refusing development in any alternative locations identified”*.

¹⁰ PPG, para 23 [emphasis added], see also in PPG para 1 the reference to interactions between different sources.

¹¹ At LPE 34, page 10 this site, SA17, is scored at “6” (which is coloured light green at LPE34 2.2.4), and it appears that overall the Council is treating it as “low risk” for the purpose of the Sequential Test. Despite the terms of the planning permissions to which the Council refers at LPE30 3.2.1.3, this site would still remain at high risk. The terms are intended to greatly reduce surface water run-off from the site, but the SuDS proposed are partly underground, very high-maintenance, and so liable to fail, and in any event they would not deal with the Fillebrook water entering the site from the NW, from the Lea Bridge Road via the “panhandle”. There is also a tentative proposal for a flood alleviation scheme (“FAS”) on the site, but this is planned to

something unreal about any approach which puts the risk from the River Ching (which is “river”) in one pigeonhole and risk from the Fillebrook (which is culverted, so the risk is “surface water” running down the course of the culverted stream) into a separate pigeonhole.

17. Secondly, as part of the process areas with critical drainage problems should be identified.¹² This has not been done. There are in fact thirteen Critical Drainage Areas within the Borough.¹³
18. Thirdly, it appears that no consideration has been given to the obvious possibility that one of the large reservoirs in the Lower Lea Valley might fail (or, for instance, be damaged in a terrorist incident).¹⁴
19. Overall, the PPG clearly envisages the flood risk assessment being integrated with the sustainability appraisal so that risks in terms of flooding will be balanced off against gains in other terms, in a transparent way.¹⁵ As we have explained in our comments on the Council's SA Addendum, the sustainability appraisal exercise required by the regulations has not actually been performed. However, even if the sustainability appraisal had been carried out properly in other respects, there is no integration between the (alleged) carrying out of the sequential test (by a Council officer who does not care to put their name to their handiwork) and the sustainability appraisal (by consultants on an industrial estate in Devon).
20. In LPE34 there is a little bit of lip-service to the idea of integration in 2.1.2 “*when considering . . .*” but 2.3.12 merely refers to the sustainability appraisal as giving evidence of “*wider sustainability benefits to the community*” and 2.3.9 does not suggest any balancing off but simply gives an absolute priority to the “*requirement*” “*to ensure that the significant housing need and regeneration objectives are met*”. The Secretary of State’s letter of 5.12.22 suggests that this absolute priority is not appropriate: “*local planning authorities will be able to plan for fewer houses if building is constrained by important factors such as . . . areas of high flood risk*”.¹⁶

Results which the flood risk assessment process as a whole should have produced, but which are missing.

21. The PPG says that the strategic flood risk assessment process as a whole should consider the consequences of the design standard of flood defences being exceeded.¹⁷ We do not think that any part of this has been done since the Scott Wilson report. The PPG also says that the assessment process as a whole should consider

be located where the Fillebrook water leaves the site into James Lane, and would not deal with the risk posed by the Fillebrook water to the site itself.

- 12 PPG para 1 “*It can also include an area within Flood Zone 1 which the Environment Agency has notified the local planning authority as having critical drainage problems.*”
- 13 Flood Report, page 14.
- 14 Compare PPG para 46.
- 15 PPG diagram 1, in para 7.
- 16 Here, we are addressing **Q5.6(b)**.
- 17 PPG para 5

the likelihood of defences keeping pace with climate change.¹⁸ This has not been done.

22. The PPG requires that if sufficient sites at low risk cannot be identified, then the sequential approach should continue in order to identify among medium and high risk sites those at lowest risk of flooding from all sources.¹⁹ LPE34 acknowledges this at 2.3.3. However, the Council's box-ranking and box-ticking approach cannot do this, and in particular the Council's exercise yields no useable distinction between sites at medium risk of flooding from all sources and sites at high risk overall.²⁰
23. The PPG specifically requires that when carrying on the sequential approach into sites at medium and high risk, flood defences should not be taken into account, nor should estimates of the probability of the defences failing.²¹ To be frank, we do not know how one would do this (it would take deep local knowledge and skill to envisage and then model the edge of the Lea Valley without the existing flood defences) but certainly this has not been done.²²
24. Because there is no integration between the flood risk exercise and the sustainability appraisal, the first part of the Exception Test has not been carried out. The NPPF requires *"To pass the exception test it should be demonstrated that (a) the development would provide wider sustainability benefits to the community that outweigh the flood risk"*.²³ This first part of the Exception Test receives lip-service in LPE34 at 1.1.1 and 1.2.1-2, but LPE34 does not purport to record that this has actually been carried out. In Appendix A to the Level 2 SFRA AECOM do not purport to carry out the first part of the exception test, but only make recommendations with a view to getting the Council's proposed development sites through the second part of the exception test.²⁴
25. The flood risk assessment as a whole should have identified areas as falling into Flood Zone 3b, the "functional flood plain", that is areas where in the event of a flood, flood water is to be held.²⁵ It does not appear that this has been done, although it does appear that sites along the River Ching which previously were allocated for housing are now not to be used for housing. (It may be that the Council is reluctant to make it explicit that whatever industrial or distribution uses are to be located on these sites will

¹⁸ PPG para 5.

¹⁹ PPG para 24.

²⁰ This relates to **Q5.2**.

²¹ PPG para 24, for instance *"to identify the lowest risk sites in these areas, **ignoring the presence of flood risk management infrastructure**"* [emphasis added].

²² This also relates to **Q5.2**.

²³ NPPF para 164; compare PPG para 7, diagram 1 point 6 *"transparently balancing flood risk against other planning objectives"*.

²⁴ This relates to **Q5.3**. With regard to **Q5.4**, we said in relation to **Q3.1(c)** that it is not appropriate to rely on the housing allocations in LP2 because of the planning objections to the extent of development proposed on many of the sites; this will be all the more so if the Exception Test is put off until the site allocations are considered.

²⁵ PPG para 78, in the table: *"Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, . . . "*. Compare also PPG para 12, first bullet.

have to be made compatible with the use of the sites to store flood water. However, we suspect that the reason is the Council's stance²⁶ that it always has been applying the sequential approach, which would be upset if the Council were to admit that it has now applied the sequential approach and so found that these sites are unsuitable for housing.)

26. The flood risk assessment as a whole should have considered setting aside land for future flood management.²⁷ The Council has not even considered this.

²⁶ LPE30, 3.2.1.1-2 *“Throughout drafting the Plan, the Council has followed The Council is content that . . . a sequential risk-based approach to the location of development is included in the Plan”*

²⁷ PPG paras 11 and 66.