

Memo

From: Emergency Planning

FLOOD RISK ASSESSMENTS AND PLANNING.

The London Borough of Havering, following the introduction of the Flood and Water Management Act 2010 became a Lead Local Flood Authority and as such have a responsibility to ensure that flood mitigation measures are introduced when developers are intending to submit plans for new build or other developments within Flood Zones 1, 2 and 3.

The Environment Agency give guidance to developers but the ultimate responsibility for the requirements of water and flood management falls within the Lead Local Flood Authority.

Where developers are intending to build within Flood Zones 2 and 3 then the need to carry out a flood risk assessment as part of the planning process is important. I outline below the issues to be considered when completing a flood risk assessment. More information can be found on the below identified Flood Risk Assessment checklist:-

<http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/site-specific-flood-risk-assessment-checklist/>

1 Development description and location

- a. What type of development is proposed (e.g; new development, an extension to existing development, a change of use etc.) and where will it be located?
- b. What is its [flood risk vulnerability classification](#)?
- c. Is the proposed development consistent with the Local Plan for the area?
(Seek advice from the local planning authority if you are unsure about this).
- d. What evidence can be provided that the Sequential Test and where necessary the Exception Test has/have been applied in the selection of this site for this development type?
- e. Will your proposal increase overall the number of occupants and/or users of the building/land, or the nature or times of occupation or use, such that it may affect the degree of flood risk to these people?
(Particularly relevant to minor developments (alterations & extensions) & changes of use).

2. Definition of the flood hazard

- a. What sources of flooding could affect the site?
- b. For each identified source in box 2a above, can you describe how flooding would occur, with reference to any historic records where these are available?
- c. What are the existing surface water drainage arrangements for the site?

3. Probability

- a. Which flood zone is the site within? (As a first step, check the Flood Map for Planning (Rivers and Sea) on the Environment Agency's [web site](#))
- b. If there is a Strategic Flood Risk Assessment covering this site (check with the local planning authority). Does this show the same or a different flood zone compared with the Environment Agency's flood map? (If different you should seek advice from the local planning authority and, if necessary, the Environment Agency).
- c. What is the probability of the site flooding, taking account of the maps of flood risk from rivers and the sea and from surface water, on the Environment Agency's [web site](#), and the Strategic Flood Risk Assessment, and of any further flood risk information for the site?
- d. If known, what (approximately) are the existing rates and volumes of surface water run-off generated by the site?

4. Climate change

How is flood risk at the site likely to be affected by climate change? Further information on climate change and development and flood risk is available on the Environment Agency's [web site](#).

5. Detailed development proposals

Where appropriate, are you able to demonstrate how land uses most sensitive to flood damage have been placed in areas within the site that are at least risk of flooding (including providing details of the development layout)?

6. Flood risk management measures

How will the site/building be protected from flooding, including the potential impacts of climate change, over the development's lifetime?

7. Off site impacts

- a. How will you ensure that your proposed development and the measures to protect your site from flooding will not increase flood risk elsewhere?
- b. How will you prevent run-off from the completed development causing an impact elsewhere?
- c. Are there any opportunities offered by the development to reduce flood risk elsewhere?

8. Residual risks

- a. What flood-related risks will remain after you have implemented the measures to protect the site from flooding?
- b. How, and by whom, will these risks be managed over the lifetime of the development? (E.g., flood warning and evacuation procedures).

9. Emergency Provision

The importance of liaison with the Local Authority Emergency Planning department is frequently recommended by the Environment Agency. This liaison is advisable especially in relation to emergency plans, access and egress from the property in the event of flooding and the completion of flood resilience measures for any resident. The need to build in resilience to the property or a 'safe haven' for the residents in the event of a flood event is especially important when considering developing in all flood zones. Past events have highlighted the need to consider emergency provision even in flood zone 1 where incidents of surface water flooding have been recorded where none has previously taken place.

10. Flood Resilience/Resistance Measures

For any development where a flood risk is identified, including flood zone 1 where a flood risk assessment is not required, the Council as a Lead Local Flood Authority want to see developers consider and implement flood resilience/resistance measures into the buildings themselves. This is not to stop development but to ensure the protection for future residents is maintained and enhanced.

The following measures are strongly recommended, although this list is not exhaustive :-

- Flood risk assessment highlighting especially the surface water risk
- Raising the level of the building by at least 300mm above local levels
- Waterproof membrane in the ground floor
- Waterproof plaster and waterproofing to ground floor
- Electrics from the upstairs down and sockets high up off the ground floor
- Non return valves on the sewerage pipes
- Emergency escape plan for each individual property
- Air brick covers
- Movable flood barriers for entrances

In conclusion, the importance of protection of a development and future occupants from flooding cannot be reinforced sufficiently, especially taking into account the well-publicised incidents throughout the country and the devastation flooding events can cause to residents and the local area.

You are reminded that these comments are sent on an informal basis without prejudice to the Council's powers as a Local Planning Authority and should not be taken as binding upon the Council or their Officers.