Environmental Sustainability

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OXFORD CITY COUNCIL

Planning Application Guidance

Flooding

Aims and Objectives of this Guidance

This guidance has been produced by Oxford City Council to advise applicants on what needs to be provided in relation to flooding. The guidance covers all sizes of development and development uses.

The guidance is not intended to repeat existing policy and guidance, but aims to provide clarity on how to provide the correct information to comply with national and local policies. Relevant policy and guidance is mentioned throughout, with a list of useful references in Section 6.

All applicants should refer to this guidance prior to submitting their planning application to ensure they provide the correct information to make their application valid and compliant.

Each development site is different and it is appreciated that not all of the guidance contained in this document may cover all scenarios. Applicants are encouraged to contact us directly should they wish to obtain more detailed pre-application advice.

Contents

1. Determining When Flooding needs to be Considered with an Application

1. You must check the EA National flood zone maps to see if your development may be at risk of flooding from rivers. This can be viewed following the link provided below;

   https://flood-map-for-planning.service.gov.uk/

2. If your proposal is located within Flood Zone 3 you should also review the indicative Flood Zone shown within the City Council's Strategic Flood Risk Assessment to determine whether your development is located within Flood Zone 3a or 3b. Appendix A contains the relevant maps.

3. If your proposal is located in Flood Zone 2 or 3 and you are proposing building works (outside of the footprint of the existing building or the construction of a basement), you will need to contact the Environment Agency to obtain the latest Flood Level information. Further information on how to do this can be found on the following link to GOV.UK website;

   https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications#get-information-to-complete-an-assessment

   Alternatively you can email the Environment Agency's Wallingford Office; their customer engagement team e-mail address is wtenquiries@environment-agency.gov.uk. The customer engagement team will be able to provide you with advice on the relevant Environment Agency product available.

4. If the proposal: lies within Flood Zone 2, 3a, 3b; is a major development, or the site is within flood zone 1 and over 1ha, a Flood Risk Assessment must be submitted with the application.

Please note:

- That the Flood Zones as outlined within The Environment Agency map or Council's Strategic Flood Risk Assessment are indicative and all proposals should utilise site specific flood level data and a topographic survey to Ordnance Datum in order to determine the correct Flood Zone.
- The Council may also require the provision of a Flood Risk Assessment when a development is in close proximity to an Ordinary Water Course, drainage ditch or unmarked watercourse.
- Flood zones only consider risk of flooding from rivers (fluvial); you also need to consider flooding from surface water (pluvial), ground water, sewer, reservoir, historic flooding, ect.

Please note that Oxfords City Council's Core Strategy Policy CS11 states the following;

Planning permission will not be granted for any development in the functional flood plain (Flood Zone 3b) except water-compatible uses and essential infrastructure. The suitability of developments proposed in other flood zones will be assessed according to the PPS25 sequential approach and exceptions test.

For all developments over 1 hectare and/or development in any area of flood risk from rivers (Flood Zone 2 or above) or other sources developers must carry out a full Flood Risk Assessment (FRA), which includes information to show how the proposed development will not increase flood risk. Necessary mitigation measures must be implemented.*

Unless it is shown not to be feasible, all developments will be expected to incorporate sustainable drainage systems or techniques to limit runoff from new development, and preferably reduce the existing rate of run-off.

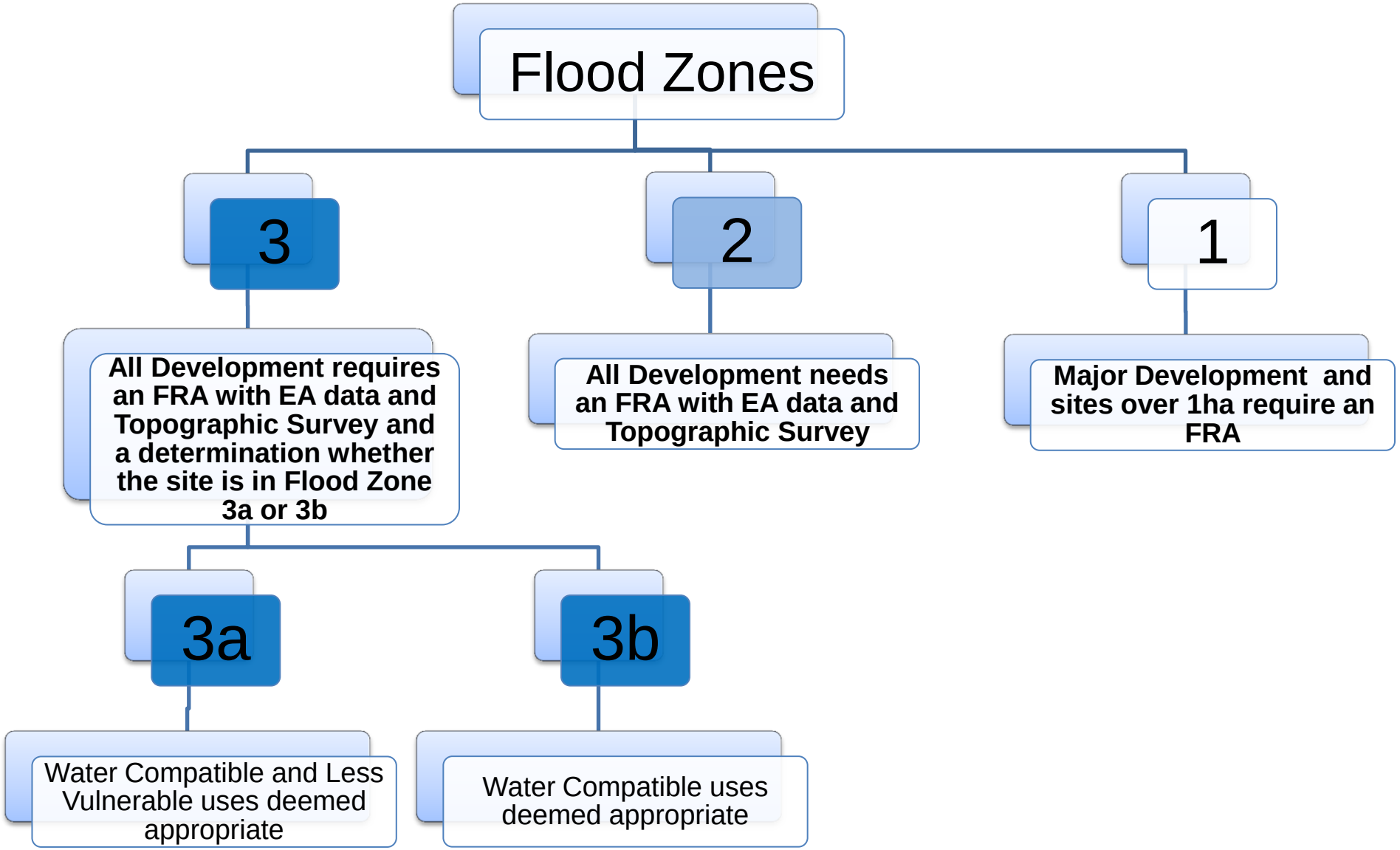
Development will not be permitted that will lead to increased flood risk elsewhere, or where the occupants will not be safe from flooding.

It is recommended that the applicant engage a suitably qualified and experienced civil engineer or flood risk specialist when preparing a development application within a flood risk area.

2. How to use this guidance

Using the table below, determine the category of your development and follow the advice outlined for your type and size of development.

Development Size	Extensions (Under 250m^2)	New Residential Dwelling or Other Development	Major
Definition of Development	Residential/industrial/ commercial/ leisure etc. extensions with a footprint less than 250 square metres. For example; sheds, garages, games rooms etc. within the curtilage of the existing dwelling, in addition to physical extensions to the existing dwelling itself.	Any development which creates a new dwelling or premises. Including change of use to more vulnerable development and creation of a separate dwelling or a separate dwelling within the curtilage of the existing dwelling e.g. subdivision of houses into flats.	Major Development as set out by the Town and Country Act
Flood Zone 1	-	-	Page 18
Flood Zone 2	Page 9	Page 14	Page 19
Flood Zone 3	Page 11	Page 15	Page 21


Flood Zones
3
2
1
All Development requires an FRA with EA data and Topographic Survey and a determination whether the site is in Flood Zone 3a or 3b
All Development needs an FRA with EA data and Topographic Survey
Major Development and sites over 1ha require an FRA
3a
3b
Water Compatible and Less Vulnerable uses deemed appropriate
Water Compatible uses deemed appropriate

3. Extensions (Under 250m^2)

Note: where the site is located within Flood Zones 2 and 3, a Flood Risk Assessment (FRA) must include and utilise the most up to date flood data from the Environment Agency.

For the purpose of this guidance; 'Extensions (under 250m^2)' are defined as:

- Minor non-residential extensions: industrial/commercial/leisure etc. extensions with a footprint less than 250 square metres.
- Householder development: For example; sheds, garages, games rooms etc. within the curtilage of the existing dwelling, in addition to physical extensions to the existing dwelling itself. This definition excludes any proposed development that would create a separate dwelling within the curtilage of the existing dwelling e.g. subdivision of houses into flats.

Please note that any development which will create a separate dwelling will need to follow the requirements of New Residential or Other Development.

3.1 Checklist Flood Zone 2 - Extensions

This zone denotes an area of between 0.1% – 1% chance of flooding from rivers in any year (between 1:1000 and 1:100 chance).

For minor extensions you should follow the Environment Agency's flood risk standing advice (2012) and provide the appropriate evidence to the local planning authority to support your planning application. A link to the Environment Agency's flood risk standing advice (2012) is located below;

https://www.gov.uk/guidance/flood-risk-assessment-standing-advice#minor-extensions-standing-advice

Oxford City Council requires that assurance is provided that developments will be safe for its lifetime and not increase flood risk elsewhere.

If your site contains a watercourse and work are proposed to the watercourse, you should be aware that a prior written Land Drainage Consent may be required from the relevant authority.

Flood Zone 2	
Check	**Validation Requirement**
☐	Flood Risk Assessment report. The report should be in the format outlined on the following website: http://planningguidance.communities.gov.uk/blog/guidance/flood-risk-and-coastal-change/site-specific-flood-risk-assessment-checklist/
☐	Up to date flood risk data (Product 4) from the Environment Agency, which can be obtained by contacting the West Thames Area at wtenquiries@environment-agency.gov.uk.
☐	The finished floor levels of the building to Ordinance Datum (mAOD)*+.
☐	A site specific topographic land survey to Ordinance Datum (mAOD)*+.
☐	Provision of estimated flood levels + climate change allowance, in accordance with the Environment Agency's latest advice for climate change, this can be found at https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances.
☐	If the proposal is to be located a lower topographic level than the 1 in 100 year + allowance for climate change flood event, details of any flood proofing/ resilience and resistance techniques are to be included within the proposal (where appropriate).
☐	Construction detail plans which include the finished floor levels, proposed flood proofing / resilience and resistance techniques, which demonstrate how the proposal will be effective against possible entry of flood water.
☐	An assessment of the risk of flooding from other sources (surface water (pluvial), ground water, sewer, reservoir, historic flooding, ect.).

Notes

* Finished Floor Levels and the site specific topographic land survey should be provided by a qualified practicing land surveyor.

\+ If the survey levels to Ordinance Datum indicate that the proposal or surrounding land is lower than the 1 in 100 year flood level than the application will be deemed to be within Flood Zone 3b and the Flood Risk Assessment will be required to be in accordance with the requirement outlined within Developer's Checklist Flood Zone 3.

Relevant Policy, data and Guidance

- EA Flood Risk Standing Advice
- Oxford City Core Strategy Policy CS11
- EA Flood Zone Maps
- Oxford City Council SFRA
- NPPG- see change of use, minor development and site specific FRA checklist

3.2 Checklist Flood Zone 3 - Extensions

This zone denotes areas at potential risk of flooding of 1% in any one year (1 in 100 year chance of flooding). This is considered to be a high risk area.

Flood zone 3 is further broken down into flood zone 3a and 3b, with flood zone 3b classified as the functional floodplain.

Sites within or partly within Flood Zone 3a and/or 3b will need to demonstrate that the development proposed is appropriate within this Flood Zone. The Council requires that developers provide assurance that the development will be safe for its lifetime and does not increase flood risk elsewhere.

Please note that Oxfords City Council's Core Strategy Policy CS11 states the following in regard to Flood Zone 3b;

> *Planning permission will not be granted for any development in the functional flood plain (Flood Zone 3b) except water-compatible uses and essential infrastructure.*

Given this, it is recommended that any applicant proposing development located within Flood Zone 3b seek pre application advice prior to seeking approval.

Please note that submission of a Flood Risk Assessment does not guarantee approval of a development or its acceptability within that given flood zone.

Flood Zone 3	
Check	**Validation Requirement**
☐	Flood Risk Assessment report. The report should be in the format outlined on the following website: http://planningguidance.communities.gov.uk/blog/guidance/flood-risk-and-coastal-change/site-specific-flood-risk-assessment-checklist/
☐	Up to date flood risk data (Product 4) from the Environment Agency, which can be obtained by contacting the West Thames Area at wtenquiries@environment-agency.gov.uk.
☐	The finished floor levels of the building to Ordinance Datum (mAOD)*+.
☐	A site specific topographic land survey to Ordinance Datum (mAOD)*+.
☐	Provision of estimated flood levels + climate change allowance, in accordance with the Environment Agency's latest advice for climate change, this can be found at https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances.
☐	If the proposal is to be located a lower topographic level than the 1 in 100 year + allowance for climate change flood event, details of any flood proofing/ resilience and resistance techniques are to be included within the proposal (where appropriate).
☐	Construction detail plans which include the finished floor levels, proposed flood proofing / resilience and resistance techniques, which demonstrate how the proposal will be effective against possible entry of flood water.
☐	If the proposal is to occupy flood storage area or obstruct river flows the applicant will be required to demonstrate the proposal will not increase flood risk on or off the site. Appropriate flood plain storage compensation should be provided in either level for level volume for volume earthworks or under building voids with adequately sized openings to allow water entre. Adequate construction detail plans which demonstrate how the proposal will achieve flood plain storage compensation are to be provided.
☐	An assessment of the risk of flooding from other sources (e.g. surface water (pluvial), ground water, sewer, reservoir, historic flooding, ect.).

Notes

* Finished Floor Levels and the site specific topographic land survey should be provided by a qualified practicing land surveyor.

\+ If the survey levels to Ordinance Datum indicate that the proposal or surrounding land is lower than the 1 in 25 year flood level than the application will be deemed to be within Flood Zone 3b and the proposal may be deemed unacceptable in accordance with NPPF and/or Council's Policy.

Relevant Policy and Guidance

- EA Flood Risk Standing Advice
- EA Flood Zone Maps
- Oxford Local Plan Policy CS11
- Oxford City Council SFRA
- NPPG

4. New Residential or Other Development

Note: where the site is located within Flood Zones 2 and 3, a Flood Risk Assessment (FRA) is to be submitted which utilises the most up to date flood data from the Environment Agency.

For the purpose of this guidance, 'New Residential or Other Development' is defined as:

> *Any development which is not covered by Householder and Industrial/Commercial Extensions or Major Development.* ***Including change of use to more vulnerable development, creation of a separate dwelling/premises or a separate dwelling within the curtilage of the existing dwelling e.g. subdivision of houses into flats.***

Other sources of flooding
The applicant should check that their site is not at risk from any other source of flood risk such as flooding from local sewers, artificial water bodies such as canals, reservoirs, lakes etc. Where this is identified this should be included in a FRA demonstrating the risk and how this will be managed.

4.1 Checklist Flood Zone 2- New Residential or Other Development

This zone denotes an area at potential risk of flooding of between 0.1% – 1% chance of flooding from rivers in any year (between 1:1000 and 1:100 chance)from a 1 in 100 year to a 1 in 1000 year chance of flooding in any one year.

Proposals within Flood Zone 2 will need to demonstrate that the development will be resilient to floodingfor its lifetime and does not increase flood risk elsewhere. Depending on the type of development, a sequential and/or exception test may need to be carried out. Please refer to Table 3 of the NPPG.

Flood Zone 2	
Check	**Validation Requirement**
☐	Flood Risk Assessment report. The report should be in the format outlined at the following website: http://planningguidance.communities.gov.uk/blog/guidance/flood-risk-and-coastal-change/site-specific-flood-risk-assessment-checklist/
☐	Up to date flood risk data from the Environment Agency appropriate for the proposal, which can be obtained by contacting the West Thames Area at wtenquiries@environment-agency.gov.uk.
☐	The finished floor levels of the building to Ordinance Datum (mAOD)*+.
☐	A site specific topographic land survey to Ordinance Datum (mAOD)*+.
☐	Provision of estimated flood levels + climate change allowance, in accordance with the Environment Agency's latest advice for climate change, this can be found at https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances.
☐	Confirmation the development is compatible with the area of flood risk in accordance with NPPG.
☐	Evidence of a sequential design approach within the site placing development is lower areas of risk within the site.
☐	If the proposal is to be located at a lower topographic level than the 1 in 100 year + allowance for climate change flood event, details of any flood proofing/ resilience and resistance techniques are to be included within the proposal (where appropriate).
☐	Plans which include the finished floor levels, proposed flood proofing/ resilience and resistance techniques, which demonstrate how the proposal will be effective against possible entry of flood water.
☐	For residential use, an assessment of safe pedestrian access and egress up to the 1 in 100 year + climate change flood level.
☐	An assessment of the risk of flooding from other sources (e.g. surface water (pluvial), ground water, sewer, reservoir, historic flooding, ect.).
Notes * Finished Floor Levels and the site specific topographic land survey should be provided by a qualified practicing land surveyor. + If the survey levels to Ordinance Datum indicate that the proposal or surrounding land is low than the 1 in 100 year flood level than the application will be deemed to be within Flood Zone 3a and the Flood Risk Assessment will be required to be in accordance with the requirement outlined within Developer's checklist Flood Zone 3.	
Relevant Policy, data and Guidance	
• Oxford City Core Strategy Policy CS11 • EA Flood Zone Maps • Oxford City Council SFRA • NPPG • FD23-30 Defra Guidance- Safe access and egress	

4.2 Checklist Flood Zone 3- New Residential or Other Development

This zone denotes areas at potential risk of flooding of 1% in any one year (1 in 100 year chance of flooding). This is considered to be a high risk area.

Flood zone 3 is further broken down into flood zone 3a and 3b, with flood zone 3b classified as the functional floodplain.

Sites within or partly within Flood Zone 3a and/or 3b will need to demonstrated that the development proposed is appropriate within this area of flood risk. If it is appropriate, it will then need to be demonstrated that the development will be resilient to flooding for its lifetime and not lead to increased flood risk elsewhere.

For change of use, it must be demonstrated that the proposal is not increasing the vulnerability of the use of the building i.e. changing it from commercial to residential.

Please note that Oxfords City Council's Core Strategy Policy CS11 states the following in regards to Flood Zone 3b;

> *Planning permission will not be granted for any development in the functional flood plain (Flood Zone 3b) except water-compatible uses and essential infrastructure.*

Given this, it is recommended that any applicant proposing development located within Flood Zone 3b seek pre application advice prior to seeking approval.

Please note that submission of a Flood Risk Assessment does not guarantee approval of a development or its acceptability within that given flood zone.

Flood Zone 3	
Check	**Validation Requirement**
☐	Flood Risk Assessment report. The report should be in the format outlined at the following website: http://planningguidance.communities.gov.uk/blog/guidance/flood-risk-and-coastal-change/site-specific-flood-risk-assessment-checklist/
☐	Up to date flood risk data from the Environment Agency appropriate for the proposal, which can be obtained by contacting the West Thames Area at wtenquiries@environment-agency.gov.uk.
☐	The finished floor levels of any building to Ordinance Datum (mAOD)*+.
☐	A site specific topographic land survey to Ordinance Datum (mAOD)*+.
☐	Provision of estimated flood levels + climate change allowance, in accordance with the Environment Agency's latest advice for climate change, this can be found at https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances.
☐	Confirmation the development is compatible with the area of flood risk in accordance with NPPG.
☐	Evidence of a sequential test and exceptions test has been passed where applicable.
☐	Evidence of a sequential design approach within the site placing development is lower areas of risk within the site.
☐	If the proposal is to be located a lower topographic level than the 1 in 100 year + allowance for climate change flood event, details of any flood proofing/ resilience and resistance techniques are to be included within the proposal (where appropriate).
☐	Construction detail plans which include the finished floor levels, proposed flood proofing/ resilience and resistance techniques, which demonstrate how the proposal will be effective against possible entry of flood water.
☐	For residential use, an assessment of safe pedestrian access and egress up to the 1 in 100 year + climate change flood level.
☐	If the proposal is to occupy flood storage area or obstruct river flows the applicant will be required to demonstrate the proposal will not increase flood risk on or off the site. Appropriate flood plain storage compensation should be provided. Adequate construction detail plans which demonstrate how the proposal will achieve flood plain storage compensation are to be provided.
☐	An assessment of the risk of flooding from other sources (e.g. surface water (pluvial), ground water, sewer, reservoir, historic flooding, ect.).
Notes * Finished Floor Levels and the site specific topographic land survey should be provided by a qualified practicing land surveyor. + If the survey levels to Ordinance Datum indicate that the proposal or surrounding land is low than the 1 in 25 year flood level than the application will be deemed to be within Flood Zone 3b and the proposal may be deemed unacceptable in accordance with NPPF and/or Council's Policy.	
Relevant Policy and Guidance	
• Oxford City Core Strategy Policy CS11 • EA Flood Zone Maps • Oxford City Council SFRA • NPPG • FD23-30 Defra Guidance- Safe access and egress	

5. Major Development

Note: where the site is located within Flood Zones 2 and 3, a Flood Risk Assessment (FRA) is to be submiited, which utilises the most up to date flood data from the Environment Agency.

Major Development is defined as:

a) *the winning and working of minerals or the use of land for mineral-working deposits;*

b) *waste development;*

c) *the provision of dwellinghouses where;*

i. *the number of dwellinghouses to be provided is 10 or more; or*
ii. *the development is to be carried out on a site having an area of 0.5 hectares or more and it is not known whether the development falls within sub-paragraph (c)(i);*
iii. *the provision of a building or buildings where the floor space to be created by the development is 1,000 square metres or more; or*
iv. *development carried out on a site having an area of 1 hectare or more;*

The Lead Local Flood Authority (LLFA) is the statutory consultee in relation to surface water management and local sources of flood risk for major developments. It is therefore recommended that the applicant consults with the LLFA to ensure any requirements they have are met, prior to submitting their planning application. It is also recommended that the applicant consults with the Local Planning Authority in relation to any local policy requirements.

If the site is over 1 hectares or in an area within flood zone 1 which has critical drainage problems as notified by the Environment Agency then a supporting flood risk assessment must also be provided in accordance with national planning policy.

Other sources of flooding
The applicant should check that their site is not at risk from any other source of flood risk such flooding from local sewers, artificial water bodies such as canals, reservoirs, lakes etc. Where this is identified this should be included in a FRA demonstrating the risk and how this will be managed.

5.1 Developer's Checklist Flood Zone 1- Major Development

The Lead Local Flood Authority will assess drainage assessments and Flood Risk Assessments for all Major planning applications in relation to surface water management.

A surface water drainage assessment is required to demonstrate that the proposed development will not create an increased risk of flooding from surface water to the development site and the surrounding area. It should be carried out in accordance with the National Planning Policy Framework, Practice Guide and Core Strategy Policy CS11.

Flood Zone 1	
Check	**Validation Requirement**
☐	Flood Risk Assessment report. The report should be in the format outlined at the following website: http://planningguidance.communities.gov.uk/blog/guidance/flood-risk-and-coastal-change/site-specific-flood-risk-assessment-checklist/
☐	A drainage strategy should be provided to support the planning application. Any drainage strategy is to provide sufficient evidence that the proposal will not increase rain water discharge from the site and preferable reduce the discharge below greenfield rain water discharge rate. Plans and drainage calculations will be required.
☐	The finished floor levels of the building to Ordinance Datum (mAOD)*+.
☐	A site specific topographic land survey to Ordinance Datum (mAOD)*+.
☐	An assessment of flooding issues which may be caused (on or offsite) by the alteration to the site, including the formation of any drainage structures
☐	An assessment of flooding from any watercourse, ditches, culverts or streams located onsite, along with any required modelling and or flood extents information.
☐	Demonstrate that any residual risk of flooding can be managed and contained safely on site should drainage features fail (e.g. pumps or hydro-brakes) OR during an extreme storm event. The location and depth and flow routes of any over ground flooding should be clearly shown on a plan.
☐	The proposal is to demonstrate that the requirements of any local surface water drainage planning policies have been met and the recommendations of the relevant Strategic Flood Risk Assessment (SFRA) and Surface Water Management Plan (SWMP) have been considered.
☐	An assessment of the risk of flooding from other sources (e.g surface water (pluvial), ground water, sewer, reservoir, historic flooding, ect.).
Relevant Policy, data and Guidance	
• Oxford Core Strategy Policy CS11 • NPPG • BRE Digest 365 (2016) (Building regulation guidance on infiltration) • CIRIA SuDS Manual • Non-Statutory SuDS Standards • LASOO Non-statutory SuDS Guidance • LLFA Local Flood Risk Management Strategy • Environment Agency Climate Change Allowances 2016	

5.2 Developer's Checklist Flood Zone 2- Major Development

This zone denotes an area at potential risk of flooding of between 0.1% – 1% chance of flooding from rivers in any year (between 1:1000 and 1:100 chance)from a 1 in 100 year to a 1 in 1000 year chance of flooding in any one year.

Depending on the type of development, a sequential and exceptions test may be required within the Flood Risk Assessment. Please refer to Table 3 of the NPPG to determine if a sequential and exceptions test is required.

Sites comprising Flood Zone 2 (refer to Appendix J SFRA) will need to demonstrated that the development proposed is appropriate within this area of flood risk, please refer to Table 3 of the NPPG to check if the development is compatible with the level of flood risk. If it is appropriate it will then need to be demonstrated that the development will be resilient to flooding for its lifetime and not increase flood risk elsewhere taking an allowance for climate change into account.

Flood Zone 2	
Check	**Validation Requirement**
☐	Flood Risk Assessment report. The report should be in the format outlined at the following website: http://planningguidance.communities.gov.uk/blog/guidance/flood-risk-and-coastal-change/site-specific-flood-risk-assessment-checklist/
☐	Up to date flood risk data from the Environment Agency appropriate for the proposal, which can be obtained by contacting the West Thames Area at wtenquiries@environment-agency.gov.uk.
☐	The finished floor levels of the building to Ordinance Datum (mAOD)*+.
☐	A site specific topographic land survey to Ordinance Datum (mAOD)*+.
☐	Provision of estimated flood levels + climate change allowance, in accordance with the Environment Agency's latest advice for climate change, this can be found at https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances.
☐	Confirmation the development is compatible with the area of flood risk in accordance with NPPG.
☐	Evidence of a sequential test and exceptions test has been passed where applicable.
☐	Evidence of a sequential design approach within the site placing development is lower areas of risk within the site.
☐	If the proposal is to be located a lower topographic level than the 1 in 100 year + allowance for climate change flood event, details of any flood proofing/ resilience and resistance techniques are to be included within the proposal (where appropriate).
☐	Construction detail plans which include the finished floor levels, proposed flood proofing/ resilience and resistance techniques, which demonstrate how the proposal will be effective against possible entry of flood water.
☐	For residential use, an assessment of safe pedestrian access and egress up to the 1 in 100 year + climate change flood level.
☐	An assessment of the risk of flooding from other sources (e.g. surface water (pluvial), ground water, sewer, reservoir, historic flooding, ect.).

Notes

* Finish Floor Levels and the site specific topographic land survey should be provided by a qualified practicing land surveyor.

\+ If the survey levels to Ordinance Datum indicate that the proposal or surrounding land is lower than the 1 in 100 year flood level than the application will be deemed to be within Flood Zone 3a and the Flood Risk Assessment will be required to be in accordance with the requirement outlined within Developer's Checklist Flood Zone 3.

Relevant Policy, data and Guidance

- Oxford City Core Strategy Policy CS11
- EA Flood Zone Maps
- Oxford City Council SFRA
- NPPG
- Environment Agency Climate Change Allowances 2016
- FD23-20 Defra Guidance

5.3 Developer's Checklist Flood Zone 3- Major Development

This zone denotes areas at potential risk of flooding of 1% in any one year (1 in 100 year chance of flooding). This is considered to be a high risk area.

Flood zone 3 is further broken down into flood zone 3a and 3b, with flood zone 3b classified as the functional floodplain.

Sites within or partly within Flood Zone 3a (refer to Appendix J SFRA) will need to demonstrated that the development proposed is appropriate within this area of flood risk. If it is appropriate it will then need to be demonstrated that the development will be resilient to flooding for its lifetime and not increase flood risk elsewhere.

For change of use, it must be demonstrated that the proposal is not increasing the vulnerability of the use of the building i.e. changing it from commercial to residential.

Please note that Oxfords City Council's Core Strategy Policy CS11 states the following in regards to Flood Zone 3b;

> *Planning permission will not be granted for any development in the functional flood plain (Flood Zone 3b) except water-compatible uses and essential infrastructure.*

Flood Zone 3	
Check	**Validation Requirement**
☐	Flood Risk Assessment report. The report should be in the format outlined at the following website: http://planningguidance.communities.gov.uk/blog/guidance/flood-risk-and-coastal-change/site-specific-flood-risk-assessment-checklist/
☐	Up to date flood risk data from the Environment Agency appropriate for the proposal, which can be obtained by contacting the West Thames Area at wtenquiries@environment-agency.gov.uk.
☐	The finished floor levels of any building to Ordinance Datum (mAOD)*+.
☐	A site specific topographic land survey to Ordinance Datum (mAOD)*+.
☐	Provision of estimated flood levels + climate change allowance, in accordance with the Environment Agency's latest advice for climate change, this can be found at https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances.
☐	Confirmation the development is compatible with the area of flood risk in accordance with NPPG.
☐	Evidence of a sequential test and exceptions test has been passed where applicable.
☐	Evidence of a sequential design approach within the site placing development is lower areas of risk within the site.
☐	If the proposal is to be located a lower topographic level than the 1 in 100 year + allowance for climate change flood event, details of any flood proofing/ resilience and resistance techniques are to be included within the proposal (where appropriate).
☐	Construction detail plans which include the finished floor levels, proposed flood proofing/ resilience and resistance techniques, which demonstrate how the proposal will be effective against possible entry of flood water.
☐	For residential use, an assessment of safe pedestrian access and egress up to the 1 in 100 year + climate change flood level.
☐	If the proposal is to occupy flood storage area or obstruct river flows the applicant will be required to demonstrate the proposal will not increase flood risk on or off the site. Appropriate flood plain storage compensation should be provided. Adequate construction detail plans which demonstrate how the proposal will achieve flood plain storage compensation are to be provided.
☐	An assessment of the risk of flooding from other sources (e.g surface water (pluvial), ground water, sewer, reservoir, historic flooding, ect.).

Notes

* Finish Floor Levels and the site specific topographic land survey should be provided by a qualified practicing land surveyor.

\+ If the survey levels to Ordinance Datum indicate that the proposal or surrounding land is lower than the 1 in 25 year flood level than the application will be deemed to be within Flood Zone 3b and the proposal may be deemed unacceptable in accordance with NPPF and/or Council's Policy.

Relevant Policy and Guidance

- Oxford City Core Strategy Policy CS11
- EA Flood Zone Maps
- Oxford City Council SFRA
- NPPG
- Environment Agency Climate Change Allowances 2016
- FD23-20 Defra Guidance

6. Relevant Policy, Data and Guidance

Reference	Web link
BRE Digest 365 Building regulations for soakaways and infiltration testing	http://www.designingbuildings.co.uk/wiki/BRE_Digest_365_Soakaway_design
BGS Maps	http://www.bgs.ac.uk/data/mapViewers/home.html
Canals and Rivers Trust	https://canalrivertrust.org.uk/contact-us
CIRIA SuDS Manual and other CIRIA Guidance	http://www.susdrain.org/resources/ciria-guidance.html
Environment Agency Flood Risk Standing Advice and minor extensions	https://www.gov.uk/guidance/flood-risk-assessment-standing-advice
Environment Agency Flood Zone Maps	http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=451500.0&y=206500.0&topic=floodmap&ep=map&scale=9&location=Oxford,%20Oxfordshire&lang=_e&layerGroups=default&distance=&textonly=off
Environment Agency Ground Water Maps	http://maps.environment-agency.gov.uk/wiyby/wiybyController?topic=groundwater&layerGroups=default&lang=_e&ep=map&scale=9&x=451500&y=206500
Environment Agency Surface Water Flood Maps	http://watermaps.environment-agency.gov.uk/wiyby/wiyby.aspx?topic=ufmfsw&scale=9&ep=map&layerGroups=default&lang=_e&y=206500&x=451500#x=451500&y=206500&scale=9
Environment Agency Reservoir Inundation Maps	http://watermaps.environment-agency.gov.uk/wiyby/wiyby.aspx?lang=_e&topic=reservoir&layer=default&scale=9&x=451500&y=206500#x=451500&y=206500&scale=9
Flood Risk Assessment Climate Change Allowances (2016)	https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances
FD23-20 DEFRA Guidance and Supplementary Guide- safe access and egress	http://planningguidance.communities.gov.uk/blog/guidance/flood-risk-and-coastal-change/developers-to-demonstrate-that-development-will-be-safe-to-satisfy-the-second-part-of-the-exception-test/how-can-you-ensure-safe-access-and-egress-to-and-from-the-development/
Land Drainage Act 1991 (section 23, 24 and 25)	http://www.legislation.gov.uk/ukpga/1991/59/contents
LASOO- Non statutory SuDS Standards Guidance	http://www.peterborough-suds.org/wp-content/uploads/2016/09/155639-SUDS-Booklet-A4-LR.pdf
Living on the Edge- Riparian Rights and responsibilities	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/454562/LIT_7114.pdf
LLFA- Local Flood Risk Management Strategy	https://www.oxfordshire.gov.uk/cms/content/oxfordshire-local-flood-risk-management-strategy
LLFA- Ordinary Watercourse Consent guidance	https://www.oxfordshire.gov.uk/cms/public-site/consenting-watercourses
National Planning Policy	https://www.gov.uk/government/uploads/system/uploads/

Framework (NPPF)	**attachment_data/file/6077/2116950.pdf**
National Planning Practice Guide (NPPG)	**http://planningguidance.communities.gov.uk/blog/policy/**
Non-Statutory SuDS Standards	**https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/415773/sustainable-drainage-technical-standards.pdf**
Oxford City Core Strategy (Policy CS11)	**https://www.oxford.gov.uk/corestrategy**
Oxford City Strategic Flood Risk Assessment Level 1 and Level 2	**https://www.oxford.gov.uk/downloads/download/435/strategic_flood_risk_assessment**
Thames Water	**http://www.thameswater.co.uk/16266.htm**

7. Contact Information

Authority	Contact Number	Contact e-mail
Oxford City Council- Flood Mitigation Officer	01865 252792	**flooding@oxford.gov.uk**
Lead Local Flood Authority (Oxfordshire County Council)		**drainage@oxfordshire.gov.uk** **https://www.oxfordshire.gov.uk/cms/public-site/flooding**
Environment Agency	**National Number** 03708 506 506	**National contact details:** **https://www.gov.uk/government/organisations/environment-agency#org-contacts** **Local Wallingford, Oxfordshire Office- Customer Relations for Data requests** **wtenquiries@environment-agency.gov.uk**
Thames Water	0800 316 9800	**http://www.thameswater.co.uk/16266.htm**
Canal and Rivers Trust	0303 040 4040	**https://canalrivertrust.org.uk/contact-us**

Appendix A

Flood Zone 3b extract from Council's Strategic Flood Risk Assessment

River Cherwell

River Thames

Marston Brook

Seacourt Stream

Peasmoor Brook

Castle Mill Stream

Boundary Brook

Hinksey Stream

Littlemore Brook

Northfield Brook

OXFORD

OXFORD DISTRICT

Legend

- River Centreline
- Study Boundary
- Flood Zone 2
- Flood Zone 3a
- Flood Zone 3b

Notes:

The flood zones have been trimmed outside of the study boundary

SCALE: NTS

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Project Title:
Oxford City SFRA - March 2011

Figure Title:
PPS25 Flood Zones and Main Watercourses

Document Reference: **5093353/62/DWG/009**

Figure Number: **Appendix J**

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