

FLOOD RISK ASSESSMENT FOR MINOR DEVELOPMENT

103 SHURDINGTON ROAD CHELTENHAM, GL53 0JQ

DATED : 16 FEBRUARY 2025



**PROPOSED ANNEX TO ADJOIN A GARDEN HOUSE WITHIN THE
CURTILAGE OF THE PROPERTY, 103 SHURDINGTON ROAD
CHELTENHAM**

FLOOD RISK ASSESSMENT / DESK TOP STUDY.

This report is compiled to consider all sources of flooding that may threaten the site under assessment.

This desk top study is compiled according to the criteria of the National Planning Policy Framework (NPPF) and the Environment Agency (EA) Advisory Notes to Local Authorities. All criteria within these authorities will be considered and used where relevant.

It is considered to be a minor development under the criteria of the NPPF,

Minor development means:

- Minor non-residential extensions: industrial/commercial/leisure etc. extensions with a footprint less than 250sqm.

The proposal is to extend the existing garden house to create an Annex

The proposed Annex will be constructed and used as an incidental facility for the members of the main house KITCHEN / BEDROOM / BATHROOM

The NPPF also states :

The relative benefits of resilient and resistant construction have been assessed both through risk assessment and the real time testing of model forms of construction. Resilient construction is favoured because it can be achieved more consistently and is less likely to encourage occupiers to remain in buildings that could be inundated by rapidly rising water levels.

It has to said that at time of flood the proposed structure would not be used and occupants would use the main house which is in Flood Zone 1

Because of this an evacuation procedure is not required,

Under NPPG it states that minor developments are unlikely to cause significant

flood risk unless they :

- Have an adverse effect on a watercourse , flood plain or its flood defences
- Would Impede access to flood defence and management facilities, or
- Where the cumulative impact of such developments would have a significant effect on local flood storage capacity or flood flows . *SITE PLAN INCORRECT*

None of the above applies in this case.

NPPF criteria states that minor development of this nature does not qualify for the sequential test but that a flood risk assessment must be compiled.

According to the EA's advices the minimum requirements for an FRA to comply with Las for Residential/Industrial/Commercial extensions with a ground floor footprint less than 250m² within Flood Zone 2 and 3 should confirm that:

Floor levels within the proposed development will be set no lower than existing levels.

AND

Flood proofing of the proposed development has been considered by the applicant and will be incorporated where appropriate. *PHASE 1 - PROOF*

OR *REQUIRED THAT ALL MATERIALS HAVE
WATER PROOFING AGENTS*

Floor levels within the extension will be set 300mm above the known or modelled 1%(1 in 100 chance each year) river flood level or 0.5% (1 in 200 chance each year) tidal and coastal flood level. This must be demonstrated by a plan to OS Datum/GPS showing finished floor levels relative to the known or modelled flood level. I

It is considered that the first option is applicable in this case. These are minor works less than 250sq.metres and should be set at the same level as existing.

As far as the future of flooding it is necessary to consider the sustainable lifetime of the proposed extension which would be 100 years as it is for residential use. *CANNOT BE RESIDENTIAL - BUILT UNDER
PERMITTED DEVELOPMENT FOR OUTBUILDINGS*

before. The equivalent of three months rain fell in 14 hours. In recent weeks and months the northern areas of the UK has suffered severe inundation

This is a worst case scenario which an assessor has to consider happening during the sustainable lifetime of the property. *SOUTH LODGE HAS FLOODED THIS DEVELOPMENT WILL ADD FURTHER RISK*

The Meteorological Office

It is also very important to remember that the Met. Office provides specialist forecasts to the emergency services and other government departments, as well as to the international community and has continuous operational capability.

This enables the Met Office to provide an immediate response to customers requiring meteorological information to deal with a variety of environmental incidents.

The National Severe Weather Warning Service provides severe weather alerts and warnings to the general public and emergency responders, giving up to four days advance notice of disruptive weather conditions.

These are updated daily in the run up to the weather event and include maps showing the risk of disruption across the UK.

Four days warning of a possible major storm is considered more than enough time for the garden house to be closed down.

Offsite Implications

There will be none with the recommendations as made.

Private impounded water holdings

There are none close enough to the site to cause any possible flooding in the area.

The brook flows at a higher level due to the displacement of water caused by the constructed house / patio area. Rear house extension and patio area will increase water levels further, as reported to me 40mm.

FURTHER SOURCES OF POSSIBLE FLOODING.

In a litany to its surface water mapping the EA states :

The threat from main rivers and the sea is "low."

An independent hydrology survey reports, the brook runs to full capacity and over during heavy rain.

The threat from surface water is very low.

The risk of groundwater rising to the surface is unlikely.

There is unlikely to be any threat from reservoirs.

The NPPF graphic for flood risk vulnerability and flood zone compatibility shows the site is considered appropriate. The proposal is shown to be more vulnerable. The exception test is covered in this report.

Table 3: Flood risk vulnerability and flood zone 'compatibility'

Flood risk vulnerability classification (see table 2)		Essential infrastructure	Water compatible	Highly vulnerable	More vulnerable	Less vulnerable
Flood zone (see table 1)	Zone 1	✓	✓	✓	✓	✓
	Zone 2	✓	✓	Exception Test required	✓	✓
	Zone 3a	Exception Test required	✓	x	Exception Test required	✓
	Zone 3b functional floodplain	Exception Test required	✓	x	x	x

Key: ✓ Development is appropriate.
x Development should not be permitted.

THIS FLOOD RISK ASSESSMENT
CANNOT BE ACCEPTED AS
STATED ON SITE PLAN AND
FURTHER PAGES

CONCLUSION

The main thrust of this report is that the garden house will be closed under lock and key should there be a threat due to flooding effecting the garden house and its proposed annex.

There is adequate sanctuary within the main house which is in Flood Zone 1.

Flood resilience measures will be taken in the building of the annex to protect against the fabric of the extension during its sustainable lifetime which would be 100 years.

Four days warning of storms would give occupants of the site plenty of time to

prepare for possible flooding.

Signed

A solid black rectangular box used to redact the signature of David Eggleton.

David Eggleton
Managing Director