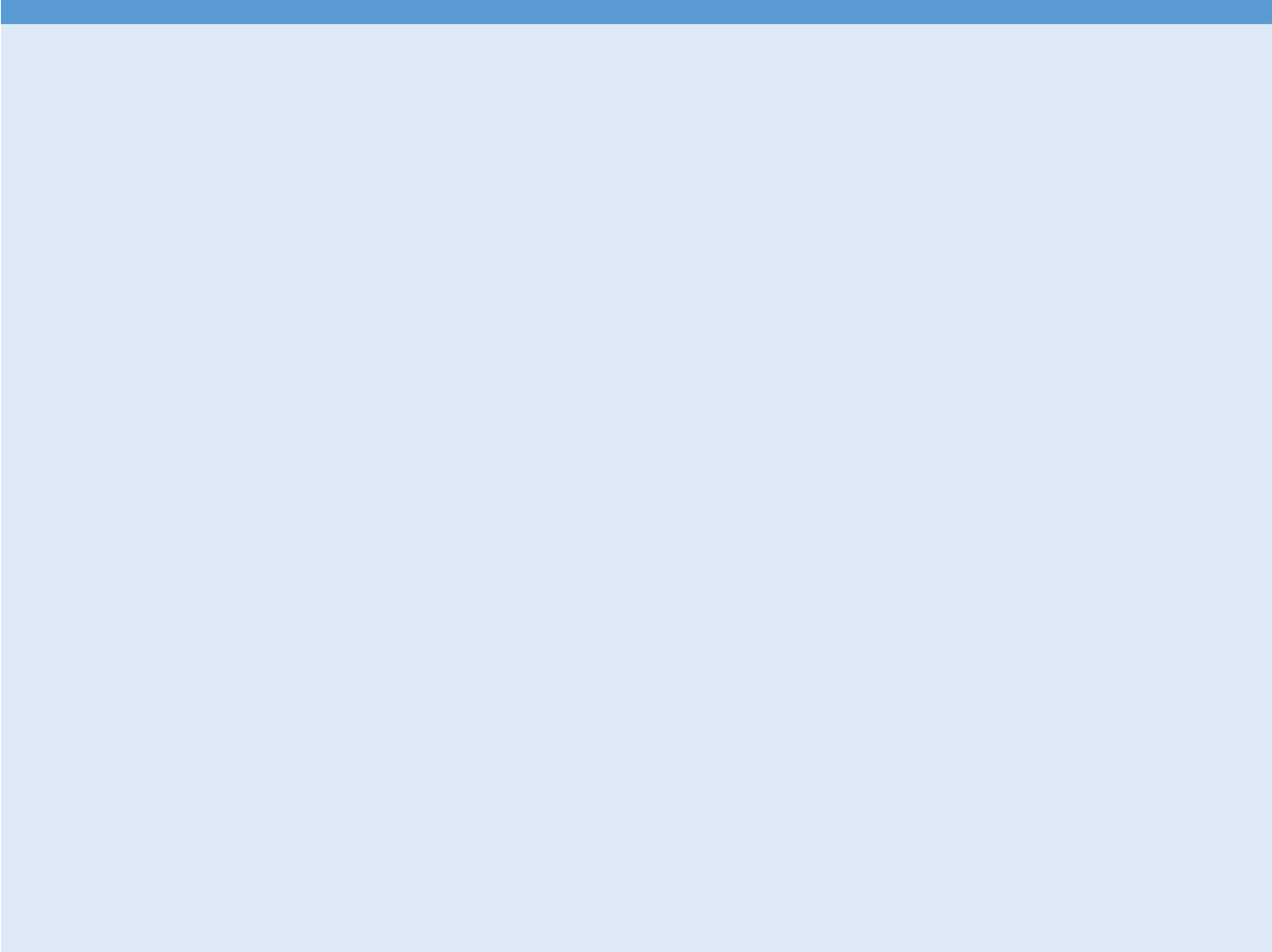


Flood Risk Assessment (FRA):

September 2020

**Proposal for the construction of a 9 Car Garage, with associated Storage
located within the existing grounds to the North at Langstone Lodge,
Langstone High Street, Havant, Hampshire, PO9 1RY**



Contents

2. Flood Risk Assessment Template	3
Introduction	3
Development site.....	3
Development proposals	3
Sequential Test	3
Site specific flood hazards	3
Tidal flooding.....	3
Surface water flooding	3
Flood mitigation measures	4
Conclusions	4
Useful contacts	5

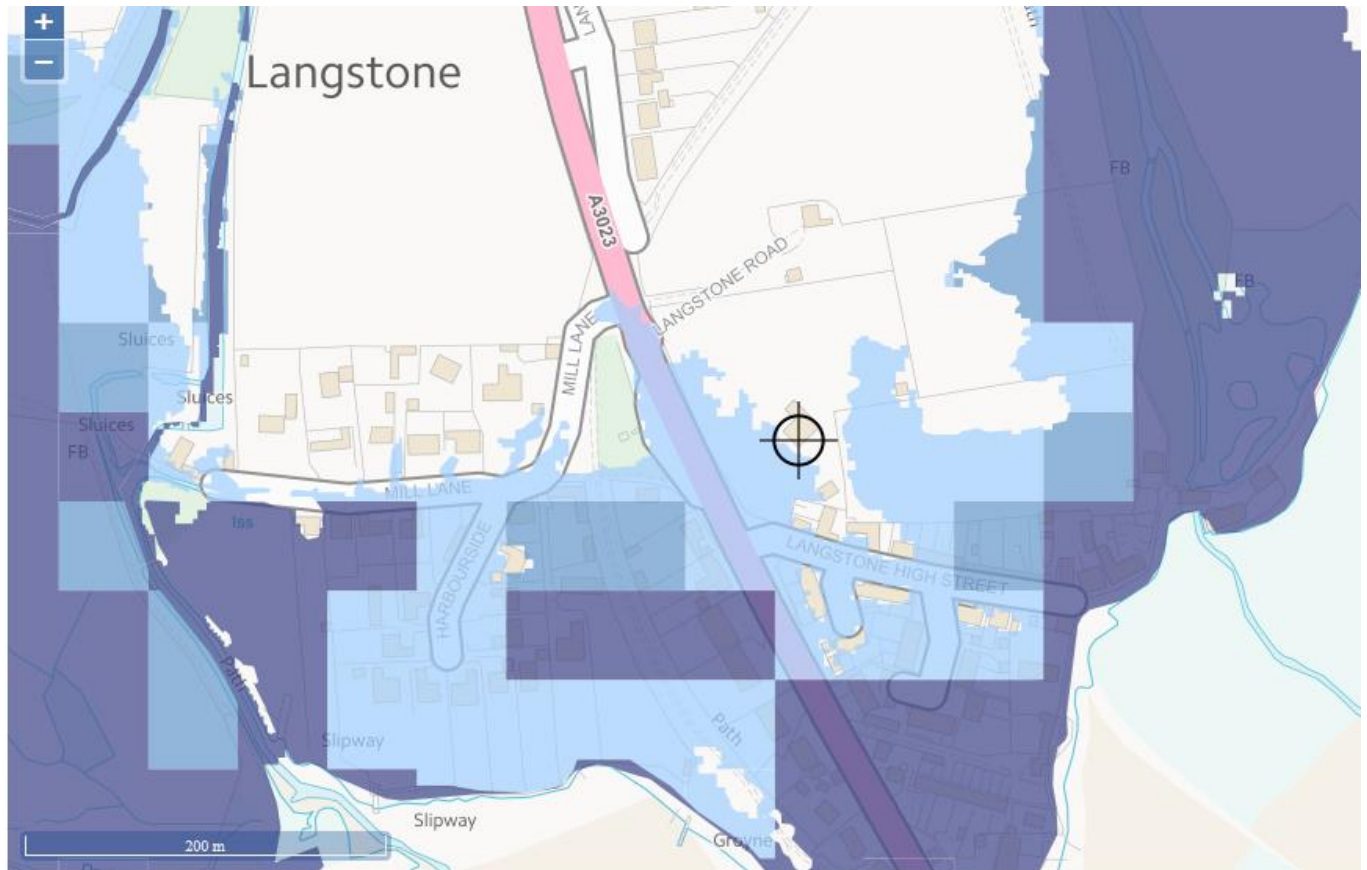
NOTE:

The following documents may be of use when completing a Flood Risk Assessment:

- Flood Risk Assessment guidance
- Site Flood Plan guidance
 Havant Borough Local Plan 2036(HBLP2036)
- More guidance can be found at
https://maps.hants.gov.uk/push/Reports/PUSH_SFRA_PCC_Guidance_for_Upload.pdf

2. Flood Risk Assessment

Introduction



Extent of flooding from rivers or the sea

● [High](#)
● [Medium](#)
● [Low](#)
● [Very low](#)
⊕ Location you selected

Development site

The proposed development site is located at Langstone Lodge, Langstone High Street, Havant, PO9 1RY and is a private residential dwelling.

Looking over the lifetime of the proposed development, the site lies just outside an area believed to be at risk of flooding, but the land owned by the client has parts that fall within an area defined as having a very low risk, and therefore a Flood Risk Assessment is required by Havant Borough Council.

This report demonstrates that the proposal will be safe, in terms of flood risk, for its design life and will not increase the flood risk elsewhere.

Please refer to Appendix A for an inactive location plan for the proposed building in context of the flood map above.

Development proposals

The development proposal for the above site is not to create any residential space but for the construction of a car storage and garage on existing grounds.

It concerns an area in the grounds to the north of Langstone Lodge, and comprises of an area screened from the public road with a 2.1 meter high brick wall, and is located with already existing private gated access to the proposal, The site currently comprises of a corner of a large lawned area.

Background

This FRA has been carried out in accordance with the requirements of the Revised National Planning Policy Framework (NPPF) published on 24 July 2018 and the Environment Agency's Flood Risk Assessment (FRA) Guidance Notes and the best practices in flood risk management.

The National Planning Policy Framework sets out planning policy in order to avoid inappropriate development in areas at risk of flooding by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere.

FRA Requirements and Objectives

The site-specific FRA should address the following:

- how flood risk affects the proposed development,
- whether the development type is appropriate for the proposed location,
- whether the site's flood risk is too great for the development,
- whether the proposed development will increase flood risk elsewhere,
- carry out the Sequential Test and the Exception Test where necessary,
- meet the additional flood resistance and resilience requirements where necessary.

The objectives of this site-specific flood risk assessment are to establish:

- whether the proposed development is likely to be affected by current or future flooding from any source,
- whether it will increase flood risk elsewhere,
- whether the measures proposed to deal with these effects and risks are appropriate,

Sequential Test

PLEASE NOTE: Applications for minor development or changes of use will not be subject to the sequential or exception tests, but should still meet the requirements for site-specific flood risk assessments.

The proposed building whilst in an area outside of any flood risk, we have acknowledged that some of the remainder of the site as per the flood risk map lies in a low area in terms of probability of flooding so the following table will be applied from the NPPF Flood Zone requirements.

Table 1 - NPPF Flood Zones and Requirements (NPPF Technical Guidance Table 1)

Zone 1: Low Probability Flood Zone	This is defined as the land assessed as having a less than 1 in 1000 annual probability of river or sea flooding in any year (<0.1%).
Appropriate uses	All uses of land are appropriate in this zone.
FRA requirements	For development proposals on sites comprising 1 ha or above the vulnerability to flooding from other sources as well as from river and sea flooding, and the potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off, should be incorporated in a FRA.
Policy aims	Developers and local authorities should seek opportunities to reduce the overall level of flood risk through the layout and form of the development, and the appropriate application of sustainable drainage techniques.

Site specific flood hazards

The proposed development site lies outside any area perceived to be at risk from flooding with the main risk of flooding coming from a tidal (sea) source which may affect the remainder of site over time. The site may be at potential risk from surface water flooding. The image on page 2 shows the site in context of the perceived flood risk.

Tidal flooding

Flood model data for the site suggests that over the lifetime of the development can be expected and will be of low velocity. Flooding of this nature is likely to cause danger for some according to table 13.1 of FD2320*.

Surface water flooding

The surface water flooding arises when the infiltration capacity of land or the drainage capacity of a local sewer network is exceeded, and the excess rainwater flows overland. The severity of surface water flooding depends on several factors such as the degree of saturation of the soil before the event, the permeability of soils and geology, hill slope steepness and the intensity of land use.

Information on the risk of surface water flooding is held by the Environment Agency. The Environment Agency's Surface Water Flood Risk Maps are provided on page 2 of this document which indicate that the risk of surface water flooding to the site varies from 'low' to 'none'. The flood depth is likely to be less than 300mm.

Flood risk from sewers

Sewer flooding is often caused by excess surface water entering the drainage network causing sewers to surcharge. The SFRA has provided very limited information on sewer flooding within the area, however, there were no records of sewer flooding incidents at the site. It is important to note that previous sewer flood incidents or the lack thereof do not indicate the current or future risk to the site as upgrade work could have been carried out to alleviate any issues or conversely in areas that have not experienced sewer flooding incidents the local drainage infrastructure could deteriorate leading to future flooding.

According to the information obtained from the landowner, there were no records of sewer flooding incidents at the site in the past.

Flood Risk Management

In order to afford a level of protection against flooding it is normally recommended that finished floor levels are set a nominal 300mm above the 1 in 100-year annual probability fluvial flood (1% AEP) including an allowance for climate change.

However, as the proposal consists of an external store and garage, with no overnight accommodation or habitable accommodation proposed, raising the finished floor level will not be possible so it is proposed that the finished floor level of the building will be set at the current level and the residual flood risk will be mitigated (if any required) by implementing flood resilient measures and utilising the Environment Agency's Flood Alerts service.

Flood Resilient Measures which may be implemented

The following flood resilient measures will be adopted, where practicable, to minimise the damage and to enable quick recovery and clean up after the flooding event:

- Water, electricity and gas meters will be located above predicted flood level.
- Non-return valves will be used in the drainage system to prevent back-flow of diluted sewage in situations where there is an identified risk of the foul sewer surcharging.
- All service entries will be sealed (e.g. with expanding foam or similar closed cell material).
- Closed cell insulation will be used for pipes which are below the predicted flood level.
- Boiler units and ancillary devices will be installed above predicted flood level and preferably on the first floor of two-storey properties.
- Wiring for telephone and other services will be protected by suitable insulation to minimise damage.

Note: Whilst the above will be taken into account upon construction of the proposal, these measures may be subject to change as for a storage unit as proposed it may not be required within the final building and subsequently not implemented.

Sustainable Urban Drainage Systems (SuDS)

Due to the nature of the hard landscaping, whilst not within an area of high risk of flooding, the proposal will include the access road to be a surface of high permeability to ensure there will not be an increase in the surface run off of the site.

Conclusions

The proposal consists of a proposed Garage and storage facility located Langstone Lodge, Langstone High

Street, Havant, Po9 1RY and is a private residential dwelling.

The proposed development is categorised as 'low', in parts only of the site.

The site is located in proximity to Langstone Harbour.

According to the information available from the SFRA and the Environment Agency, the site has no history of flooding.

The Environment Agency's flood risk map indicates that the risk of flooding to the site is 'low'.

The flood risk from other sources including underground water, sewer and reservoir is low.

In order to minimise the damage and to enable quick recovery and clean up after the flooding event, it is proposed that flood resilient measures could be implemented if required by the planning authority or a condition added to any permission if deemed necessary.

The proposed development will not lead to any increase in the surface runoff from the site.

This report demonstrates that the proposal will be safe, in terms of flood risk, for its design life and will not increase the flood risk elsewhere.

Useful contacts

Havant Borough Council

023 9244 6019.

This phone line is open from 9am-5.30pm, Monday to Thursday, and 9am-5pm on Fridays.

Our address is Public Service Plaza, Civic Centre Road, Havant, PO9 2AX.

Environment Agency

Telephone: 01962 76 48 78 (Mon-Fri, 8am - 6pm)

Telephone from outside the UK: 00 44 1709 389 201 (Mon-Fri, 8am - 6pm)

Minicom service: For the hard of hearing a minicom service is also available by calling 03702 422 549*

Email: planningSSD@environment-agency.gov.uk

Postal address:

Romsey Office
Canal Walk
Romsey
Hampshire
SO51 8DU

*Calls to 03 numbers cost no more than a national rate. Calls to a 01 or 02 number and must count towards any inclusive minutes in the same way as 01 and 02 calls. These rules apply to calls from any type of line including mobile, BT, other fixed line or payphone.

This document was produced in conjunction with:



APPENDIX A

Proposed Garage in context of Low risk flooding as the environmental agency map for comparison (Not to scale)

