



Flood Risk Assessment

Backland Development of 4 No. Single Bedroom Cottages

Land Rear of 70-76 West Street, Havant

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1.0 Generally

- 1.1 This Flood Risk Assessment (FRA) is in support of an Outline Application to Havant Borough Council for 2 No. new 2 bedroom cottages and associated land at the rear of 70-72 West Street, Havant, PO9 1LN.
- 1.2 This FRA is being undertaken in line with the National Planning Policy Framework (NPPF) Section 104: *Applications for minor development and changes of use should not be subject to the Sequential or Exception Tests but should still meet the requirements for site-specific flood risk assessments.*
- 1.3 No other purpose is anticipated or accepted. Copyright of this report remains with Martin Critchley, Chartered Architect.
- 1.4 Reference should be made to the planning submission drawings for details of the proposals, re:

17023 -	141	Location and Block Plan
	150	Approved Site Plan
	151	Proposed Site Plan
	241	Approved Plans and Elevations
	341	Approved Context Elevations
	450	Proposed Plans and Elevations
	550	Proposed Context Elevations
	601	Proposed Section A-A
	602	Proposed Section B-B

2.0 Development

- 2.1 The subject site is approximately 756 m².
- 2.2 The proposals are for four new one-bedroom cottages, identified on drawing 17043-151.
- 2.3 The proposals will create four new bedrooms and would house four people.
- 2.4 From PUSH Strategic Flood Risk Assessment (2016 update):

“The SFRA has shown that the primary source of flood risk to Havant is from the sea. The key parts of the Borough which are currently at risk of flooding from the extreme tides include Brockhampton, Langstone and Emsworth on the mainland and Eastoke, Selmore and

Mengham on Hayling Island. Flooding due to wave overtopping is historically known to occur on Hayling Island, particularly along the southern frontage. Land behind this frontage has suffered significant flooding from wave overtopping even though the land is relatively high and is shown to lie within Flood Zone 1, i.e. the zone of low probability of tidal flooding.

The secondary source of flood risk to Havant Borough is from fluvial sources including the Lavant Stream, the Hermitage Stream and associated tributaries. These watercourses flow through the town centre of Havant and discharge into Langstone Harbour. Additionally, the upper reaches of the Wallington River rise near Waterloo in Havant Borough. The key parts of the Borough which are currently at risk of fluvial flooding include Havant town centre, Leigh Park, West Leigh and Stockheath.

*Approximately 58% of Havant Borough is currently covered by existing development, **suggesting that much future development will need to be concentrated on brownfield sites.** A number of environmentally designated areas represent a significant constraint on development in the Borough, covering approximately 24% of its area. As such there may be only limited land upon which development can be permitted following consideration of other planning constraints."*

3.0 Assessment of Flood Risk

- 3.1 This FRA is being undertaken for a minor development on a site which includes land within Flood Zone 3. The risk comes from a small watercourse at the rear of the site.
- 3.2 The site is at an elevation of some 7.6m AOD and is remote from the influence of tidal flooding. Shoreline Management Plans are not applicable to this location.
- 3.3 Havant town centre is underlain by low and moderately permeable bedrock.
- 3.4 Based on information available from The Environment Agency, the current extent of flooding from rivers and seas at the location of the subject site affects only the rear boundary. The majority of the site, including the proposed location of the new cottages, is not within an area at risk of flooding.
- 3.5 Based on the current design and flood levels, only a small section of the rear gardens would potentially suffer inundation.
- 3.6 Based on information available from The Environment Agency, there is risk of flooding from surface water at the location of the site, however the risk level is currently low.
- 3.7 West Street itself is at a higher risk of flooding than the subject site, with a potential flood depth of up to 300mm during a high risk scenario, or up to 900mm during a low risk scenario. However, given the town centre location, there would be

immediate assistance at hand for the evacuation of residents in the event of an incursion.

- 3.8 With the exception of the rear boundary, the subject site is not in at risk of flooding during high or medium risk scenarios. In a low risk scenario, parts of the subject site may potentially flood up to 300mm, with a flood velocity of less than 0.25 m/s.
- 3.9 The PUSH predicted flood maps for 2115 indicate that the subject site, along with most of the centre of Havant, will eventually be within Flood Zone 3.
- 3.10 The South East Hampshire Catchment Flood Management Plan summary – December 2009 (CFMP) indicates the site falls within Policy sub-area 5 for Havant and Denmead. The CFMP states that Policy 4 is the preferred policy approach:
- *“Areas of low to moderate or high flood risk where we are already managing the floodrisk effectively but where we may need to take further actions to keep pace with climate change. This policy will tend to be applied where the risks are currently deemed to be appropriately managed, but where the risk of flooding is expected to significantly rise in the future. In this case we would need to do more in the future to contain what would otherwise be increasing risk. Taking further action to reduce risk will require further appraisal to assess whether there are socially and environmentally sustainable technically viable and economically justified options.”*
- 3.11 The CFMP aims to:
- improve channel capacity and conveyance through Havant
 - Improve maintenance to reduce blockages of grills
 - Expect new developments to manage drainage so there is no net increase in flood risk.
- 3.12 Overall, the CFMP does not present any issues that would prohibit the development of this site with respect to flood issues, provided the surface water drainage is based on SuDS principles.

4.0 Mitigation Measures

- 4.1 This application is currently for outline permission only. It would be reasonable and appropriate to the design of the proposed cottages to set the finished floor level at 450mm above ground level, 8m AOD. In the unlikely event of an incursion, the floor level would therefore remain above the current maximum projected surface water level.
- 4.2 Take additional low level protection measures:
- Seal service entry connections.

- All service outlets within the building to be a minimum of 450mm above floor level.
- External doors to have slotted jamb provisions for flood boards.
- All drain and service access covers at ground level to have locking covers and frames.