

Proposed Development of Land off The Mallards, Langstone. REVISED FLOOD RISK ASSESSMENT.

Introduction.

It is proposed to carry out a modest residential development on former farm land at Langstone. The site lies close to the future tidal flood plain of Langstone Harbour and is within the area covered by the local Strategic Flood Risk Assessment. Any planning application needs to be accompanied, therefore, by a site-specific flood risk assessment in accordance with the requirements of the Government's National Planning Policy Framework (NPPF). This document fulfils that requirement.

The Site.

The site comprises a compact parcel of land off The Mallards, Langstone Road. It is currently occupied by a small range of derelict farm buildings, served by a private access road. A full topographical survey is available, with levels correct to Ordnance Datum. The land trends gently north to south between levels of 4.8 and 4.7m above OD. The access track and associated land is slightly lower, between levels of 4.3 and 4.2m above OD. The bulk of the site is within NPPF Flood Zone 1.

The Proposals.

It is proposed to demolish the farm buildings, clear the site and build a modest estate of three detached four-bedroom houses, each with garaging facilities. Access will be via the former private farm road directly onto The Mallards. The minimum ground floor level of the units is set at a level of 5.0m above OD. The NPPF classification for this type of development is "more vulnerable" and the lifetime is taken to be 100 years.

Environment Agency and local SFRA Information.

Current Environment Agency flood mapping information states that the risk of flooding from rivers or the sea is "very low". The local Strategic Flood Risk Assessment is contained in documents within the Partnership for Urban South Hampshire (PUSH). The PUSH documents confirm that the site is within the possible tidal flood plain of Langstone Harbour. The SFRA states that the 2115AD 1 in 200 year extreme for Langstone will reach a level of 4.4m above OD. Due to the site's remoteness from the Harbour, there is no allowance for wave attack. The Environment Agency has supplied modelled information relating to the adjacent Langstone Mill Channel, report SSD/91478 dated 31st July 2018 refers. The report states that the 1 in 100 year fluvial level will reach 4.434m above OD and the 1 in 1,000 year level will reach 4.571m above OD. All the above data places the site within NPPF Flood Zone 1.

What This Means for the Development.

With minimum ground floors no lower than 5.0m above OD, the new houses will be risk-free for the whole of their lives, enjoying a freeboard not less than 600mm. The private access road, however, may become susceptible to tidal flooding at the end of the life of the development, although flood depths will be minimal.

Surface Water Disposal Strategy.

Being formerly used as a farming facility, there is probably no existing disposal strategy. The new-build nature of the development provides the opportunity to manage surface water disposal in a way best

suited to the new usage and the surrounding area. It is possible that soakaway disposal will be of limited value.

Other Sources of Flood Risk.

The NPPF requires that the whole range of flood risk sources should be considered, as follows:-

- ***Flooding from rivers or the sea.*** This identified as the major risk and is outlined above.
- ***Flooding from Surface Water.*** Current Environment Agency mapping indicates that there is a “very low” risk from this source.
- ***Flooding from the land.*** The site has a natural slope draining to the Harbour fringes. The new-build nature of the development provides the opportunity to manage land drainage.
- ***Flooding from sewers.*** There are no sewers in the immediate vicinity of the site.
- ***Flooding from canals, reservoirs etc.*** Not applicable.

Flood Resilience.

The NPPF requires that where new dwellings are constructed adjacent to flood risk areas, flood resilience measures should be built into the design. These measures should include solid floors, water resistant lower wall coverings and high level electrical infrastructure.

Residual Flood Risk.

There will be a minor residual flood risk to this development, associated with the difficulty in negotiating the access road during extreme tidal flooding. Flood depths are not expected to exceed 200mm during the short peak of the flood. The Environment Agency’s FD2320 matrix suggests that the danger to pedestrians will be minimal. Vehicular movement should not be affected.

Conclusions.

The main conclusion of this assessment is that there appear to be no flood risk reasons why the development should not proceed as proposed. Specifically:-

- The bulk of the site, including the footprint of the new dwellings is in NPPF Flood Zone 1.
- The minimum floor level stated will mean that the new dwellings will be risk-free for the whole of their life, enjoying a freeboard not less than 600mm.
- Flood resilience measures are included in the design.
- The new-build nature of the development will ensure that all risks are managed.

End.

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