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13th March 2025

Scott Glover
Flood and Water Management Team
Hampshire County Council
The Castle
Upper High Street
Winchester
SO23 8UJ

Dear Scott

Re: Interbridges, New Brighton Road, Emsworth (LPA ref. APP/24/01010)

Bellamy Roberts has been instructed by PNH Properties to prepare a written response to the consultation comments received from the lead Local Flood Authority (LLFA) dated 10th February 2025.

The consultation comments are enclosed however in summary, the LLFA has requested additional information before they can make a decision on whether to recommend to the Local Planning Authority that planning permission be granted.

The additional information requested relates to the following matters:

- Flood Risk (rivers/sea, surface water and groundwater).
- Confirmation on how the site access will be drained.
- Clarification of routing of perforated pipes.
- Network model of drainage system.
- External levels plan including proposed finished floor levels.
- Maintenance plan for whole drainage system.
- Confirmation from Southern Water on proposed discharge.

The matters raised by the LLFA have been addressed in turn.

Flood Risk

Rivers and the Sea

The current flood map for planning shows that part of the site lies within Flood Zone 2, however for the reasons stated within the submitted FRA, the flood mapping cannot be accurate at this location.

Updated flood mapping, known as 'Long Term Flood Risk' were released on 28th January 2025. This mapping utilises improved national data and this will replace the data currently shown on the flood map for planning on 25th March. This shows a different extent of flooding associated with rivers and the sea however, no guidance has been given by the EA as to which mapping should be used between now and the 25th March.

The EA has been contacted and clarification has been sought on this matter. The LLFA will be updated in due course when a response is received.

Surface Water

Regarding surface water flood risk, the updated published mapping now shows no surface water flood risk within the boundary of the site. This is also the case when the future period 2040 – 2060 is considered. This is evidence at Figure 1 and 2.



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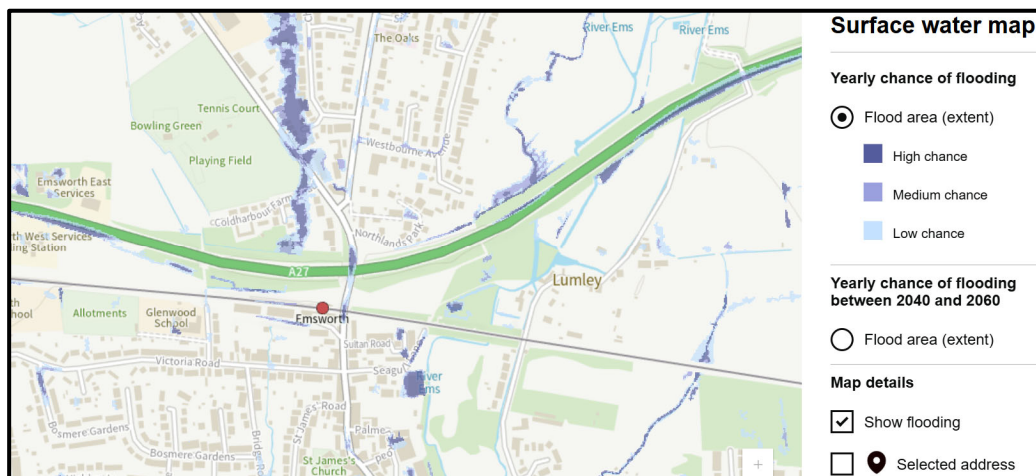


Figure 1: Surface Water Flood Risk

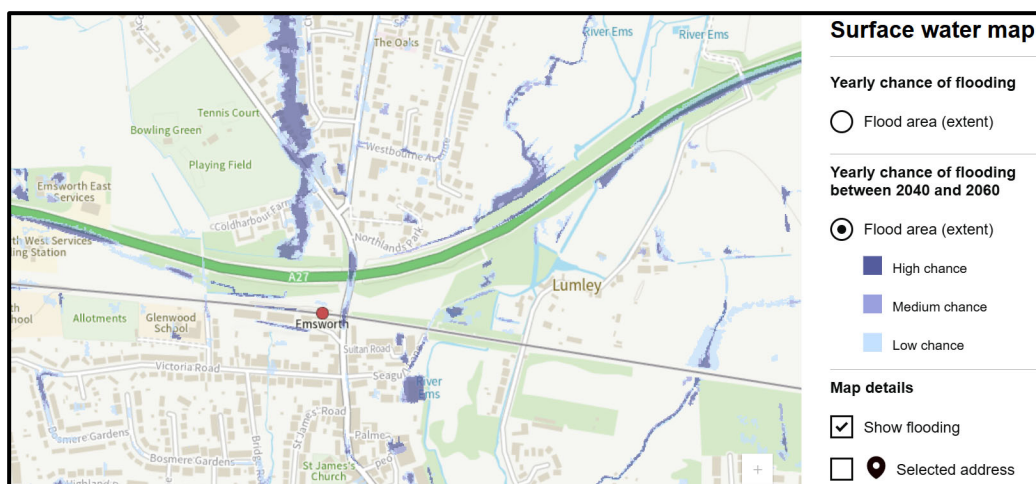


Figure 2: Surface Water Flood Risk (2040 – 2060)

Groundwater

Mapping appended to the Partnership for South Hampshire (PfSH) Strategic Flood Risk Assessment (SFRA) identifies that the application site is susceptible to groundwater flooding. However, the long term flood risk website states that flooding from groundwater is unlikely.

Site specific investigations were undertaken at the application site by Ashdown SI and included the installation of groundwater data loggers within standpipes constructed to a depth of 5m below ground level. The loggers were installed on the 30th April and collected data until the 20th May.

The Ashdown SI Report noted the following:

“Groundwater was recorded at depths of 1.33m and 1.30 during the drilling of boreholes WS05 and WS09, respectively. All other exploratory holes remained dry during drilling/excavation.

Monitoring of groundwater levels within the standpipes installed in boreholes WS01, WS04, and WS07 was undertaken over a period of approximately three weeks.

Borehole WS01 was recorded to remain dry during the monitoring period.

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Groundwater within boreholes WS04 and WS07 was recorded to gradually rise to respective depths of 3.60m and 3.15m by the end of the monitoring period. However, the data indicates that groundwater levels within the standpipes had not fully equilibrated with the true groundwater levels by the time the dataloggers were collected."

A plan showing the location of the boreholes and results of the groundwater monitoring are enclosed.

Groundwater levels typically reach their peak in March - April before subsiding in the summer months. Whilst the Ashdown SI results show that groundwater levels had not fully equilibrated by 20th May, it is not expected that groundwater levels would significantly increase beyond the level recorded.

The data from the site investigations undertaken to date do not suggest that the site has a high susceptibility to groundwater flooding. In any event, overwinter groundwater monitoring could be conditioned by the LPA to provide further comfort to the LLFA that the site is not at risk from groundwater flooding.

Access Road Drainage

Drainage of the access road will be via gullies. To provide sufficient treatment of the surface water runoff from the access road, a vortex separation system will be installed to provide adequate treatment to the surface water runoff. Surface water from the roof areas will be directed to the subbase of the permeable parking areas. The mitigation indices for these SuDS elements are set out in Table 1.

Table 1: Mitigation Indices

Type of SuDS Component	Total Suspended Solids	Metals	Hydrocarbons
Permeable Pavement	0.7	0.6	0.6
Vortex Separator	0.5	0.4	0.5

Providing the above elements will ensure that sufficient treatment is provided to the run-off from the site.

Routing of Perforated Pipes

Perforated pipes were not shown on the submitted strategy as this is considered a detail design matter.

Nevertheless and to assist the LLFA, the suggested routing of the perforated pipes has been shown on the drainage strategy plan. The amended drawing is enclosed.

Network Model

A network model for the whole system will be undertaken and submitted under separate cover. The principle of the surface water drainage strategy has been demonstrated in the submitted documents and the network model will provide additional supplementary details.

External Levels Plan

TBC – I have asked Will for a plan showing the proposed FFLs.

Maintenance Plan

The maintenance regime for the proposed permeable paving areas was presented in the submitted FRA. As requested by the LLFA, the proposed maintenance regime for the vortex separator and cellular storage is presented in Tables 2 and 3.

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Table 2: Maintenance Regime (Vortex Separator)

Maintenance Schedule	Required Action	Typical Frequency
Regular	Inspect the inside of the chamber and remove any loose debris.	Monthly during the first year of installation.
	Measure the depth of the sediment that has collected in the sump.	
Remedial Actions	Oil and floatables removal	Once per year
Monitoring	Inspect silt accumulation rates and establish appropriate cleaning frequencies	Annually
	Monitor inspection chamber	Annually

Table 3: Maintenance Regime (Cellular Storage)

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Inspect and identify any areas that are not operating correctly, If required, take remedial action	Monthly for 3 months, then annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	For systems where rainfall infiltrated into the tank from above, check surface of filter for blockage by sediment, algae or other matter; remove and replace surface infiltration medium as necessary	Annually
	Remove sediment from pre-treatment structures and/or internal forebays	Annually, or as required
Remedial Actions	Repair/rehabilitate inlets, outlet, overflows and vents.	As required
Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed	Annually
	Survey inside of tank for sediment build-up and remove if necessary	Every 5 years or as required

Proposed Point of Discharge

The watercourse referred to by the LLFA is the river Ems approximately 110m to the east. Bordering the eastern boundary of the site is a bank which is approximately 500mm higher than the adjacent round level.

The existing site would therefore not drain to this watercourse as suggested by the LLFA.

A similar pumped solution was proposed in relation to a previous planning application at this site (LPA ref. APP/16/00295) and the LLFA considered this to be acceptable.

Southern Water has been contacted regarding the proposed connection however it should be noted that under the Water Industry Act, Southern Water has an obligation to accept a new connection, regardless of capacity issues.



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Policy S3 from the DEFRA non-statutory technical standards for sustainable drainage systems states “for developments which were previously developed, the peak runoff rate from the development to any drain, sewer or surface water body for the 1 in 1 year rainfall event and the 1 in 100 year rainfall event must be as close as reasonably practicable to the greenfield runoff rate from the development for the same rainfall event, but should never exceed the rate of discharge from the development prior to redevelopment for that event”.

A summary of the pre- and post-development discharge rates is given in Table 4. The pre-development rates have been obtained from the UK SuDS website which are presented **Appendix 3**.

Table 4: Summary of Greenfield Runoff Rates

Rainfall Event	Discharge Rates	
	Pre-Development	Post-Development
1 in 1-year	1.3 l/s	1.3 l/s
1 in 30-year + 35%	4.7 l/s	2.3 l/s
1 in 100-year + 45%	7.1 l/s	2.7 l/s

The proposed drainage strategy accords with the DEFRA non-statutory technical standards and therefore Southern Water would have no grounds to object to the proposed connection.

Conclusion

I trust the additional information set out in this letter will allow the LLFA to issue a positive recommendation for the scheme and/or confirm whether any remaining comments or concerns are considered so important/severe as to render the proposal unacceptable, representing defensible refusal reasons in the context the NPPF.

Yours sincerely

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Enclosed:
LLFA Consultation Comments (10th February 2025)
Proposed Surface Water Drainage Strategy (6096/101 rev. C)