

Mrs Aaron Wright  
Havant Borough Council  
Civic Offices Civic Centre Road  
Havant  
Hampshire  
PO9 2AX

**Our ref:** HA/2013/113856/05-L01  
**Your ref:** Rev I  
**Date:** 10 April 2013

Dear Mrs Wright

**REVISED FLOOD RISK ASSESSMENT - REV I**

**MANOR FARM AND COPSEYS NURSERY, HALLETT ROAD, HAVANT**

Thank you for consulting the Environment Agency on the above enquiry, which was received on 4 April 2013.

**Environment Agency Position**

Following the significant revisions made to the Flood Risk Assessment (FRA), we are in a position to remove our objection to the development from our response dated 27 December 2012 (our reference: HA/2012/113691/01). However, we consider that the development will only be acceptable if the following planning condition is attached to any planning permission granted and arrangements for the adoption of the drainage network are included within a Section 106 agreement for the site:

**No development approved by this planning permission shall take place until such time as a final surface water drainage scheme has been submitted to, and approved in writing by, the Local Planning Authority. The drainage scheme should demonstrate that the surface water run-off generated up to and including the 100 year critical storm, including an allowance for climate change, will not exceed the run-off from the greenfield site following the corresponding rainfall event.**

**The surface water drainage scheme should be based on the sustainable drainage principles referred to within the Flood Risk Assessment and shall also include:**

- Information about the design storm period and intensity, the method employed to delay and control the surface water discharged from the site and the measures taken to prevent pollution of the receiving groundwater and/or surface waters;**

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- **Confirmation of final dimensions and locations of the specific drainage features (permeable paving, soakaways, ponds, etc);**
- **A timetable for the implementation of the drainage scheme;**
- **A management and maintenance plan for the lifetime of the development which shall include the arrangements for adoption by any public body or statutory undertaker, or any other arrangements to secure the operation of the sustainable urban drainage scheme throughout its lifetime.**

The scheme shall be fully implemented and subsequently maintained, in accordance with the timing / phasing arrangements embodied within the scheme, or within any other period as may subsequently be agreed, in writing, by the Local Planning Authority.

**Reason:** This condition is required for the following reasons:

- To prevent flooding by ensuring the satisfactory storage of/disposal of surface water from the site, in line with the National Planning Policy Framework, paragraph 103.

The submitted Flood Risk Assessment identifies the approximate runoff rates from the site and the likely storage volumes required to safely restrict runoff from the site. Although we are satisfied at this stage that the proposed development could be allowed in principle, the applicant will need to provide further details to ensure that the proposed development can go ahead without posing an unacceptable flood risk both on and off site.

#### Advice to Local Planning Authority

The Environment Agency is a technical advisor to the Government on a range of issues, including flood risk. In fulfilling this role, we look to ensure that new development will not increase flood risk and will contribute to a reduction in flood risk where possible. In this way we advise Local Planning Authorities on whether or not development is in line with the National Planning Policy Framework, which sets out the Government's planning policies for England.

The proposed development is located upstream of Selangor Avenue, where homes have flooded twice within the last 12 months. Given the high level of existing risk to these properties, it is critical to ensure that flood risk within the catchment is managed carefully, and that opportunities for reducing the level of risk are closely considered.

MJA Consulting's initial drainage scheme (included within their Flood Risk Assessment, Revision A) proposed an unacceptable design that included an unrestricted overflow from the proposed soakaways into the Nore Farm Stream. The Environment Agency objected to this arrangement in our letter to Havant Borough Council dated 27 December 2012.

Following this objection MJA Consulting have made a number of revisions to their Flood Risk Assessment. The latest, Revision I, includes a drainage scheme that satisfactorily demonstrates that surface water runoff from the development can be safely controlled. Following these changes we are in a position to remove our objection to the development.

MJA Consulting's proposed drainage scheme includes soakaways as an initial means of disposing of surface water runoff from the site, with a series of attenuation ponds acting as a reserve system to store and control runoff into the Nore Farm Stream when

groundwater levels are high.

The design discharge from the ponds is restricted to the greenfield runoff rate (the runoff from the entire site as if it were undeveloped). This represents an improvement on the current situation as the Copseys Nursery site is presently mostly hardstanding, resulting in the existing runoff rate being higher than the proposed (greenfield) runoff rate.

MJA Consulting's drainage design also calls for the site to be raised in the region of 450mm to increase the depth to the groundwater table. They intend to install a land drain along the western boundary of the development to allow the existing properties to the west to drain through the site - an allowance has been made within their calculations for this additional area draining into the ponds.

The groundwater monitoring results included within Appendix E of the Flood Risk Assessment show that the water table has been very close to the surface over the recent wet winter. Whilst the ground raising will increase the depth from the proposed soakaways to the water table when the site is developed, periods of heavy rain coinciding with periods of high groundwater will likely see the backup system of attenuation ponds in operation. Havant Borough Council should be aware that during these periods surface water runoff will be stored in the ponds and the part of the public open space that the ponds take up may not be useable.

It should be noted that the drainage scheme is only at the preliminary design stage. Whilst we are satisfied that MJA Consulting have demonstrated that the site can be safely drained in principle, further detailed design is required to produce a final drainage scheme. For this reason we believe the above condition is necessary to ensure that this detailed design work is carried out and that flood risk in this catchment is not increased.

The final drainage scheme should include:

- Final levels, sizing and locations of the soakaways, permeable paving and attenuation ponds, as well as the interconnecting pipework.
- Details of all of the overflow and control structures.
- Detailed design of how exceedance flows (runoff in excess of the design standard of the drainage system) will be safely contained within the site.

We also recommend that provision is made within a Section 106 agreement for the site to secure future funding for the management and maintenance of the drainage scheme. It is vitally important that the various drainage features are appropriately maintained to keep them functioning as designed.

### Correspondence

For reference please find below a summary of our correspondence regarding this application:

#### **Hybrid Application (APP/12/01222), received 7 December 2012.**

In the absence of an acceptable FRA we objected to the planning application, as the FRA failed to:

1. Consider the impact of overland flow into the Nore Farm Stream given the known flooding problems experienced downstream.
2. Appropriately address the likely infiltration problems at the site.

Please see our letter dated 27 December 2012 (our ref: HA/2012/113691/01) for the full response.

**Revised FRA (Rev B) Enquiry from MJA Consulting, received 22 January 2013.** Having reviewed the revised FRA our response (dated 11 February 2013, ref: HA/2013/113856/01) highlighted outstanding questions and comments in relation to the impact of the proposed development on overland flow and infiltration.

Our response also highlighted what further work needed to be undertaken in order to overcome our concerns.

**Meeting with Havant Borough Council (Aaron Wright), Generator Developments, Barratt Homes and MJA Consulting, 13 February 2013.**

This meeting provided an opportunity to discuss our response (ref: HA/2013/113856/01) in detail and to clarify what further work was needed to overcome our concerns.

**Revised FRA (Rev D) Enquiry from MJA Consulting, received 18 February 2013.** Following our meeting on the 13 February, we received a revised FRA. We were satisfied the revised FRA addressed a number of our concerns however not all the issues were overcome.

Our response (dated 28 February 2013, ref: HA/2013/113856/02) provided a clear account of areas which require further work in order to overcome our concerns.

**Revised FRA (Rev E) Enquiry from MJA Consulting, received 01 March 2013.** Rev E was received and reviewed, however we were still not in a position to remove our objection. There were still a number of outstanding issues that required further consideration to ensure that the proposed development will not increase flood risk to third parties. These key points were outlined in our response (dated 13 March 2013, ref: HA/2013/113856/03).

**Meeting with Havant Borough Council (Aaron Wright and Steve Weaver), Barratt Homes, MJA Consulting, 22 March 2013.**

Due to outstanding issues still present with the FRA, it was agreed that a meeting took place before further work proceeded on addressing these issues. The work carried out by MJA since Revision E was discussed and the further work required was discussed.

**Revised FRA Rev F (received 20 March 2013), Rev G (received 25 March 2013), Rev H (received 26 March 2013).**

Our response (dated 27 March 2013, ref: HA/2013/113856/04) covered Revisions F, G and H of the FRA. The revised FRA covered most of our remaining concerns, however there remained an issue with the proposed discharge rates for the north and south ponds (serving the Copseys Nursery site and the Manor Farm respectively). As such we maintained our objection.

If you have any queries regarding the information set out above, please contact me on the details below.

Yours sincerely

**Miss Verity Giles**  
**Planning Advisor, Environment Agency**

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cc Barratt David Wilson, MJA Consulting