



Flood Risk Management
 Derbyshire County Council
 County Hall
 Matlock, Derbyshire
 DE4 3AG

James Stannard
 Development Services
 High Peak Borough Council
 PO Box 136
 Buxton
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Ask for Richard Ward

 Our ref HPBC 2024/33
 Your ref HPK/2024/0275
 Date 31 January 2025

Dear James,

Proposal: Proposed change of use of agricultural land to B2 general industrial use, construction of a single building for storage and processing of sand and stone aggregate products, ancillary office space, vehicular access and turning space for HGV's, staff and visitor parking and associated hard and soft landscaping works

Location: LAND OFF , Waterswallows Lane , Green Fairfield , Buxton , Derbyshire ,

Application reference HPK/2024/0275

No objections in principle		Conditions Recommended	Holding Objection Recommended	X
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Derbyshire County Council as the Lead Local Flood Authority (LLFA) previously recommended a holding objection for this application following a review of information submitted for this application, which was received on 08/07/2024.

Derbyshire County Council has since reviewed additional information, which was received on 22/01/2025. Whilst some issues have been resolved, the LLFA recommends an objection for the reasons set out below.

REASONS FOR OBJECTION

We are recommending an objection on the proposed development as the updated information provided does not address concerns relating to infiltration rates and treatment of runoff and there is therefore insufficient evidence to demonstrate that the proposed drainage system will effectively drain the site without increasing flood risk to third parties and without posing a risk of pollution.

The revised Flood Risk Assessment and associated revised drainage calculations resolved some of the concerns outlined in Derbyshire County Council's previous response letter. As per Derbyshire County Council drainage guidance and national guidance documents, the drainage calculations have been updated to:

- *use the default Time of Entry of 5 as per Derbyshire County Council drainage guidance*
- *use a maximum rainfall rate of 150mm/hr*
- *use an additional storage value of 0*
- *use Cv (summer) and Cv (winter) values of 1 in the drainage simulations*
- *provide 1 in 30-year and 1 in 100-year calculations for system performance modelling (although It is noted that the 1 in 30-year calculation does not include an allowance for climate change)*
- *use a Factor of Safety (FoS) of 10, which is indicated as more appropriate for the site conditions by Table 25.2 of The SuDS Manual (C753). However, we note that the Flood Risk Assessment (FRA) refers to a FoS value of 2 or 3 having been applied.*

We also highlighted that the Flood Risk Assessment (FRA) provided with the application states in paragraph 4.1.5 that the impermeable area proposed is 1.7ha. However, both the impermeable area plan and drainage calculations previously stated that the impermeable area is 2.1ha. We note that calculations have now been updated to match the 1.7ha impermeable area stated in the FRA. However, the revised FRA still references the previous impermeable area plan ("K24-004-005 Impermeable Areas Plan"). Given that the 1.7ha area used in the amended drainage calculations appears to be correct we consider that the revised information addresses our concerns. However, we would expect that the impermeable area plan is updated for clarity.

The following concerns raised previously have not been fully addressed:

- *The drainage proposals provided indicate that a single treatment stage will be provided through a proprietary retention separator. Further information is required to confirm that this will provide a sufficient level of treatment prior to infiltration. Online literature for the Klargester NSFA240 system proposed appears to indicate that this is only suitable for a drainage area of up to 13,333m² (c. 1.3ha).*
- *Infiltration rate used in calculations is from another nearby site and the highest infiltration rate recorded in the tests has been used. Given the range of rates shown in the testing, the infiltration rate may be significantly overestimated. It is also noted that the tests were carried out for a much shallower depth than that proposed in the drainage design (1.4m BGL compared to c.4.5-5.5m BGL). The SuDS Manual (C753) states "infiltration tests should be carried out at the location, depth and head of water that represents the proposed design". At this stage, given the uncertainty over infiltration rate, we'd expect a more conservative rate to be used in calculations to give confidence that the proposed drainage system will be sufficient to drain the site without increasing flood risk.*

We also note that the applicant has not provided calculations of the greenfield runoff and discharge rates. Basic greenfield runoff and discharge rate calculations are a requirement for all major planning applications.

As a statutory consultee for surface water the minimum details required on all major planning applications are as follows:

- Site plan and impermeable area
- Topographic survey of the site
- Appropriate evidence to support how the site will drain, including confirmation of where the surface water will outfall to (photographs / maps / a confirmation letter from a water company)
- Basic calculations of the greenfield/brownfield runoff and discharge rates
- A quick storage estimate to show the required storage volume of surface water on site and an indication of the likely location
- Calculations should include allowances for the current Environment Agency guidance for climate change and urban creep
- Basic ground investigation (desktop survey as a minimum)
- Major developments should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate (as per National Planning Policy Framework). A range of sustainable drainage techniques must be considered prior to or in conjunction with the planning layout.
- How the sustainable drainage systems integrate with the open space and green infrastructure should be described and what multifunctional benefits they provide should be stated, as per paragraph 59 of planning practice guidance (Aug 2022).

These details are required at the early planning stage to demonstrate that the proposed site is able to drain and that due consideration has been given to the space required on site for surface water storage.

Please note the level of detail submitted should be proportionate to the size and scale of the development.

Yours sincerely

Richard Ward
Senior Project Engineer

Checked by: ~~checker's name~~Alex Back
Date 10/02/2025