



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

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Development Services
High Peak Borough Council
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Telephone
Ask for Richard Ward
Email
Our ref HPBC 2024/33
Your ref HPK/2024/0275
Date 08 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) has reviewed the information submitted for this application, which was received on 08/07/2024. 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 drainage calculations provided are not compliant with national and local drainage guidance 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.

Our specific concerns are as follows:

- The Flood Risk Assessment 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 state that the impermeable area is 2.1ha. This should be clarified and calculations provided for the correct area.*

- *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).*
- *Cv values used in the drainage calculations are set to 0.75 (summer) and 0.84 (winter). Derbyshire County Council guidance on drainage calculations requires a Cv value of 1 to be used.*
- *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".*
- *The Flood Risk Assessment states that a Factor of Safety (FoS) of 3 has been used in accordance with Table 25.2 of The SuDS Manual (C753). However, this FoS is suitable for drainage of area up to 1000m² and where only minor inconvenience (e.g. flooding of car parks) will occur. Exceedance of the drainage system at this site will likely result in uncontrolled runoff to the adjacent road and the area drained is >1000m². For these conditions, Table 25.2 indicates that a FoS of 10 is appropriate. The drainage calculations provided show that a FoS of 2 has been used.*
- *Time of Entry set to 1.5 mins – Derbyshire County Council drainage guidance requires the 5 mins default value to be used.*
- *Derbyshire County Council drainage guide requires justification if a maximum rainfall rate of less than 150mm/hr is used. A lower rate of 50mm/hr has been used in the calculations provided.*
- *Derbyshire County Council guidance requires that the additional storage value is set to 0. A value of 20m³/ha has been used in the calculations provided.*
- *Derbyshire County Council guidance requires that system performance is modelled for the 1 in 30-year and 1 in 100-year events (both with a suitable allowance for climate change). Only the 1 in 100-year calculation has been provided.*

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: Alex Back
Date 09/01/2025