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#### **GADSDEN CONSULTING**

Unit 20 Meetings Industrial Estate Park Road Barrow-in-Furness Cumbria LA14 4TL

Email: info@gadsdens.co.uk Website: gadsdens.co.uk Tel: 01229 813 333

# <u>Drainage Strategy Statement</u> <u>Mill Farm Barns, The Green, Millom, Cumbria, LA18 5HL</u>

Gadsden Consulting were appointed by MVC Design Ltd to undertake a drainage strategy statement in support of a planning application for the conversion of Mill Farm Barns, The Green, Millom, Cumbria, LA18 5HL.

Mill Farm Barns is made up of attached barns located in the rural village of the Green near Millom, Cumbria. It comprises of three barns, attached to what we assume will have been the original farmhouse to the north.

The purpose of this statement is to comment on the available surface water drainage discharge options for the site.

### **Flood Risk**

A flood risk assessment has been undertaken by Castledine Environmental (Ref 3965D, May 2025). The site falls within flood zone 2, with the FRA stating, 'the proposals satisfy relevant national and local policy'.

### **Drainage Strategy**

## **Surface Water Drainage Hierarchy**

Any proposed drainage scheme should minimise the rate of runoff from the site to greenfield runoff rates. Planning Policy guidance suggests the following hierarchy for surface water discharge: -

- 1. Into the ground (Infiltration)
- 2. To a surface water body
- 3. To a surface water sewer
- 4. To a combined sewer

#### Infiltration

BRE365 soakaway testing should be undertaken to determine whether infiltration drainage is suitable on site. If infiltration drainage is deemed suitable then a soakaway should be designed for return periods of up to 100 years, with a 50% allowance for climate change.

The soakaway should be installed in accordance with Building Regulations Rart H. General rules for soakaways include (but are not limited to):

- Minimum 5m from any building
- Minimum 2.5m from a boundary

### Waterbody

Black Beck is located approximately 30m to the east of the site.

If infiltration drainage is not applicable on site, then discharge to the watercourse at a controlled rate should be explored.

Attenuation should be provided for return periods up to 100 years, with a 50% allowance for climate change. The runoff rate should be limited to as close as is reasonably practicable to the greenfield runoff rate for the area it serves.

Discharge to Black Beck would require crossing third party land, and agreements with the land owner would be required.

#### **Surface Water Sewer**

There are no United Utilities surface water sewers within close proximity to the site. However, there are highways gulleys within the adjacent highways, suggesting that there may be a highways sewer or culverted watercourse nearby.

Attenuation should be provided for return periods up to 100 years, with a 50% allowance for climate change. The runoff rate should be limited to as close as is reasonably practicable to the greenfield runoff rate for the area it serves.

This would need to be explored if a soakaway or discharge to the watercourse was not viable.

### **Combined Sewer**

There are no adopted combined sewers within close proximity to the site and therefore this is not seen as a potential option.

## **Foul Drainage**

As there are no adopted foul or combined drainage sewers within close proximity of the site, a package treatment plant will be required to serve the dwelling/s.

A drainage field should be installed for the discharge of the treated effluent, again adhering to Building Regulations Part H. General rules for treatment plants and drainage fields include (but are not limited to):

- Package treatment plant to be a minimum of 7m from any building
- Drainage field to be a minimum of 15m from any building

If the general rules cannot be achieved, then a permit may be required from the Environment Agency.

Another option for the discharge of the treated effluent would be into the adjacent watercourse. This would require crossing third party land and agreement would be required with the relevant land owner. This option would also require a permit from the Environment Agency.





## **Summary**

The proposed strategy follows the drainage hierarchy. There are a number of options available that will allow for the effective drainage of the proposed development to meet the relevant standards/guidance.

Yours faithfully,

Rob Bruce Director Gadsden Consulting

