

### Initial outline

Hannah Eldon of Lets Go Walkies proposes to open a Dog Day Care Unit at Ennerdale Mill, Egremont CA22 2PN. Part of the process also includes a change of use from the previous business; namely Tiny Toes Childcare/Nursery.

As part of this process, a Flood Risk Assessment is required as part of the planning application. Please see below for the information required for the Assessment.

### Sequential Test

The development involves a change of use, therefore a sequential test is not required.

The property is however, in flood zone 2 & 3 and requires a flood risk assessment.



### Location

The property is situated at Ennerdale Mill Business Park, adjacent to Bridge End Industrial Estate, an established and popular commercial area to the south of Egremont.

### Description

The property comprises a former office block, most recently occupied and used as a nursery.

Internally, the property provides a mix of good-sized open plan office area in addition to several private offices/ meeting rooms, kitchen and WCs. Externally there is a yard/ parking area which can accommodate up to 18 cars.

No changes will be made structurally inside or out to the existing building.

### Accommodation

Reception 14.17 sq m 153 sq ft

Open Plan Office 101.98 sq m 1,098 sq ft

Open Plan Office 2 58.1 sq m 625 sq ft

Meeting Rooms 51.78 sq m 557 sq ft

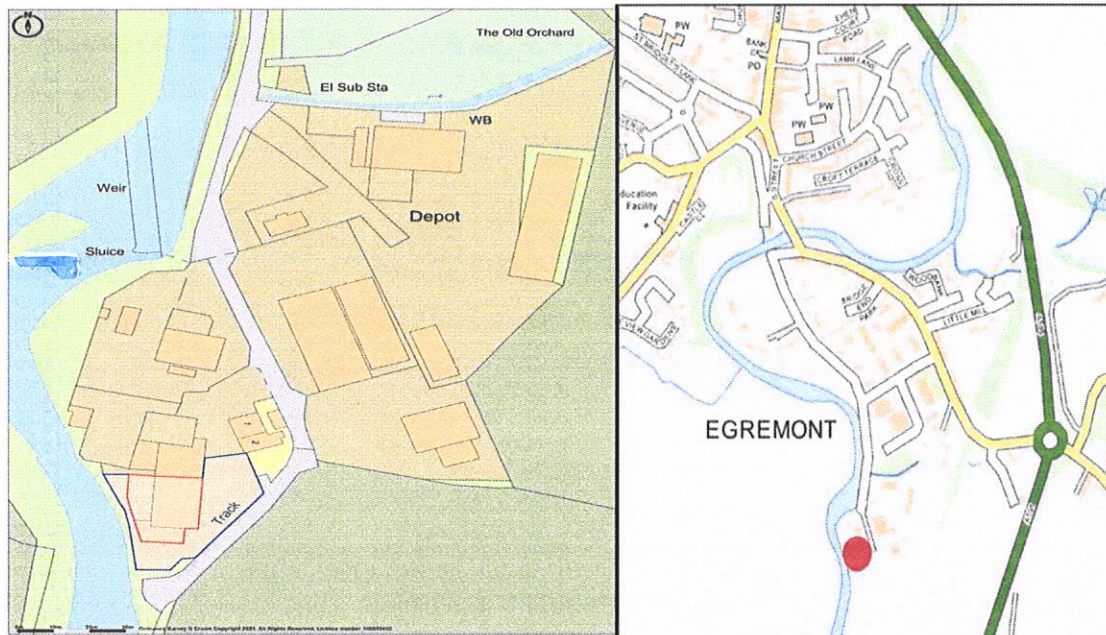
Kitchen 10.05 sq m 108 sq ft

Total Useable Area 236.08 sq m 2,541 sq ft

## Services

Mains water and electricity are connected to the property. Heating is provided by way of an oil-fired central heating system and drainage is to a septic tank.

## Location Plan of Proposed Property;



## Existing site levels at CA22 2PN, taken from Ordinance Survey Benchmark Locator.

Square	Easting	Northing	Mark type	Description	Height	Order	Datum	Verified year	Levelling year	Metres above ground
NY	0150	0960	RIVET	RIVET GTP 1.2M S PRODN N FACE HO GHYLL BANK W SIDE RD	70.282	2	'N'	1961	1961	0.000
NY	0166	0999	CUT MARK	N ANG NO1 SCURGILL TERR SW SIDE RD	67.599	3	'N'	1956	-	0.500

No alterations will be made to the existing levels of the property, either internally or externally. Therefore, the property should continue to meet existing flood risk requirements, as outlined by the previous occupant.

## Assessment of Flood Risk.

The following information, documents and historical events will outline an estimate for the 1 in 100 years flood for CA22 2PN and the proposed change of use on the site as outlined in the location plan previously.

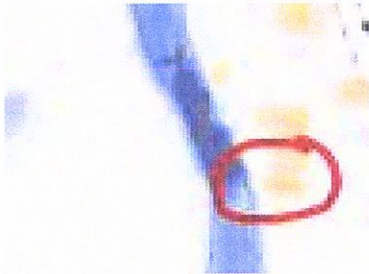
Having used the data from the following maps/images will show any extent of varying flood possibilities and risk to the property.

Information with regards to danger of flooding from seas/ivers can be seen in the above image, under the sequential test header.



### Extent of Flooding (surface water).

● High ● Medium ● Low ○ Very low



This shows the potential of surface water flooding to the area highlighted. With darker blue meaning higher risk.

No high or medium risk is indicated for the property itself.

### Risk from surface water velocity.

● Over 0.25 m/s ● Less than 0.25 m/s ↖ Direction of water flow



There is a threat during a high-risk scenario and the velocity shown here. However, the Environment Agency has previously removed a weir and installed steel structures on the bank. In addition to the wall defence. Requests have been made to the EA for this information, should it be deemed necessary for the application.



← Medium risk scenario threat from velocity.

Low risk scenario threat from velocity →



### Risk from depth of flood water.

● Over 900mm ● 300 to 900mm ● Below 300mm



← High risk scenario and threat from flood water depth.

Medium risk scenario and threat from flood water depth. →

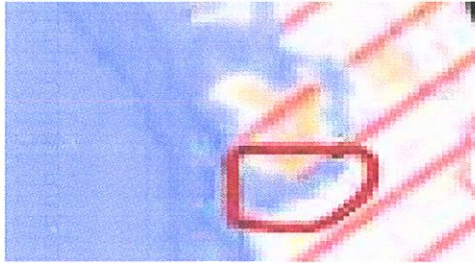


← Low risk scenario and threat from flood water depth.

Information Source;  
check-long-term-flood-risk.service.gov.uk

## Extent of flooding from reservoirs

 when river levels are normal  when there is also flooding from rivers



This shows the potential of flooding from reservoirs, both at normal levels and in addition to potential effects from simultaneous flooding from the river.

Details of drainage, any existing storm drains and culverts which may also have an additional impact on the flood severity, should be included within the plans for the building. Details have also been requested from the EA and could be provided once obtained.

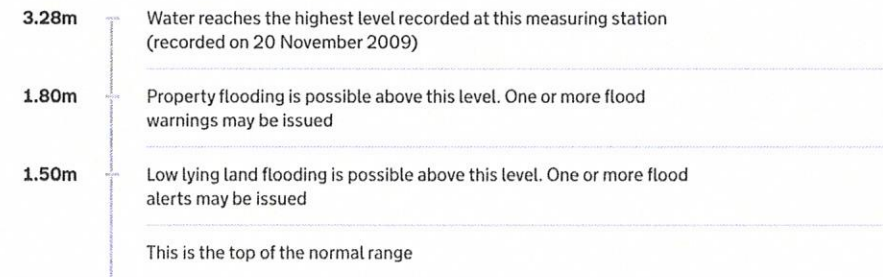
A report from the Gov.uk website can also be seen below;

<b>Rivers and the sea</b> Very low risk <a href="#">More information about your level of flood risk from rivers and the sea</a> This flood risk summary is not property specific. Very low risk means that this area has a chance of flooding of less than 0.1% <b>each year</b> . This service takes into account any flood defences. The Environment Agency is responsible for managing the flood risk from rivers and the sea.	<b>Surface water</b> Very low risk <a href="#">More information about your level of flood risk from surface water</a> Surface water flooding happens when rainwater cannot drain away through the normal drainage systems. Instead, it lies on or flows over the ground. Surface water flooding is sometimes known as flash flooding. It can: <ul style="list-style-type: none"><li>• be difficult to predict as it depends on rainfall volume and location</li><li>• happen up hills and away from rivers and other bodies of water</li><li>• affect areas with harder surfaces, like concrete, more severely</li></ul> Lead local flood authorities (LLFA) are responsible for managing the flood risk from surface water and may hold more detailed information.
<b>Other flood risks</b> <b>Reservoirs</b> <a href="#">There is a risk of flooding from reservoirs in this area</a> <a href="#">What a reservoir is and how we check an area's risk</a> Flooding from reservoirs is extremely unlikely. An area is considered at risk if peoples' lives could be threatened in the event of a dam or reservoir failure.	<b>Groundwater</b> Flooding from groundwater is unlikely in this area <a href="#">What groundwater flooding is and how we can check an area's risk</a> Flooding caused by groundwater happens when water underground that is usually held in the rocks and soil (known as the water table) gets so high that it flows above the surface. We use flood alert data to check the risk of flooding from groundwater.

### Previous Flooding at or near site (River Ehen).

The highest recorded heights of the River Ehen (at Egremont) are outlined below;

#### **How levels here could affect nearby areas**



Flooding might not happen again at the same historical levels. This may be because flood management schemes are now in place.

### Duration of a flood.

The Ehen usual recedes at a steady rate, owing to the fact it is fed by Ennderdale Lake.

With this in mind, I would predict the actual flood itself to be sustained (depending on weather event) for no longer than 24 hours. For levels to recede enough back to what is considered "normal levels" can take a few days, usually 2 or 3 and around 5-7 days to be back to its steadiest point.

The site is adjacent to the River Ehen, should the river exceed its banks, the property would likely flood from this point and flow in a southerly direction given the gradient of the land and the flow of the river at that point. The evacuation points from the building lead away from the River and also to an upward gradient and out towards Bridge End Industrial Estate.

The Number of staff/people within the property itself is not expected to exceed more than 4, with it being usually 1-2 staff maximum, depending on the requirements for the days work. Animals are not expected to exceed 8. The customer car park is adjacent to the building but further away from flood risk. Full details of the car park can be referred within the main planning application.

Since 2009, various flood prevention measures have been introduced to the River Ehen. Details of these have been requested, however it is common knowledge that United Utilities have made significant upgrades to Ennerdale and the River Ehen itself in an effort to restore the river to a more natural state, alongside the West Cumbrian Rivers Trust and Wild Ennerdale.

This should help to slow down the flow of the river, increase capacity within the bed and therefore reduce flooding further downstream.

Much of the river is now a site of special scientific importance, the constant monitoring and improvements of the catchment area and river basin should help to reduce the impact of climate change in the future, with regards to flooding risks.



### Managing Flood Risk

As the property is on a pre-existing commercial/industrial site, managing a mitigating flood risk as an individual unit is quite restricted; as in the building a surrounding land is not owned by the proposed tenant.

However, certain practices can be implemented to help reduce and minimize the potential risk to both property and individuals on site.

Using the Met Office Alert system, details of potential weather warnings should be given in advance. In addition to these alerts, the service provided by [check-for-flooding.service.gov.uk](https://check-for-flooding.service.gov.uk) can be used to check current and predicted river levels, right from the source of the Ehen (Ennerdale), its main Tributary (River Keekle) and the mouth of the river at Braystones.

### Summary

As mentioned in the introduction, the previous use was as a children's nursery, which I believe falls under the "More Vulnerable" Category, according to the NPPF 2022 Annex 3.

The proposed change of use to a "Dog Day Care" should fall under the "Less Vulnerable" Category, thus meaning the overall risk and impact from flooding would be less in the event of said flood.

Therefore, alongside the information provided in the assessment, I would be hopeful that this part of the planning process will be approved.