Ref :- Erect General Purpose building extension. & concrete yard adjacent.

Bracken Beck
Under Hill
Millom
Cumbria LA18 5HA

'Rockland'
Lady Hall
Millom
Cumbria LA18 5HR

Flood Risk Assessment

22/11/2022

Enclosed :- (showing main features mentioned later in the assessment)

- Copy of O.S. map, scale 1:2500, showing :-
  - A) position of proposed extension, identified RED
  - B) O.S. level 20'0" (6.1m) located at centre of highway adjacent Bracken Beck House, coloured PINK.
  - C) Open & culverted gutter, known as "Bracken Beck", coloured ORANGE
  - D) Estuary tidal protection embankment, coloured GREEN
  - E) Access road, coloured YELLOW
- Copy of GOV.UK flood risk information, showing area is LOW RISK

1) From the O.S. level of 6.1 (B) adjacent Bracken Beck house, previous levels taken for earlier site development shows the yard & existing buildings floor levels are 6.15 AOD.
2) An open gutter (C) passes under the road via a 0.6 wide x 0.9 high stone culvert adjacent "Bracken Beck House" & at its exit point, the bed of the gutter is 1.53 below the road datum level. This normally easily carries any rainwater away.
3) The estuary embankment (D) was completed in 1963 & extends from Millom to Duddon Bridge with the only large interuption being where the "Black Beck" enters the estuary at Green Road Station (the embankment returning both sides of the beck inwards as far as the railway line embankment) This embankment is believed to have been constructed by the owners of "Lowther Estates" & is aprox 7.0 AOD.
4) All drainage gutters flow into a main gutter running inward, & parallel to the embankment & exits into the estuary underneath, via sluices, which appear to be kept in good working order.
5) During heavy spells of rain, the fields throughout this land plane have water standing in hollows, & all gutters do fill up fully, especially when Tides coincide & the sluices are closed - causing "back up", but causes no propiems.
6) From previous environment agency correspondence, the flat calm tidal flood levels in this area are as quoted below

1 in 100 year undefended modelled flood level = 5.97 AOD
1 in 200 " " " " " = 6.22 AOD
1 in 1000 " " " " " = 6.63 AOD.

& one model result, allowing for climate change predicted for the year 2115 :-

1 in 200 year undefended modelled flood level = 7.0 AOD.

This being the aprox height of the existing embankment @) any wind/ gale backed high tide would cause overlapping of the same
Overlapping does happen even now at such times, where there is local sinking, & the embankment was breached in 2 places near Lady Hall during Feb 2002.

7) The enclosed GOV.UK flood risk information dated 23/10/2018, taking into account existing flood defences show the risk of flood from rivers & sea is LOW & from surface water - VERY LOW.
[these maps are the same as E.A. flood map for planning, which shows Flood Zone 3 benefitting from flood defences]

8) The proposed building extension will have the South west elevation open fronted, this would allow any future flood water to enter & exit freely, & the floor level will be aprox 6.15 AOD as per the existing yard & buildings

9) The applicant is aware of the possibility of tidal flooding in the future if the embankment is breeched or overlapped.

The Hill
Under Hill
Hill Brow
Quarry
Well
Bracken Beck
Damson Barn
High Marshside
Level Crossing
Underhill Cottages
Millom Marsh
Dudden Mount
Middle Marshside
Path (um)
Cob F
1129 1·078
1130 1·293
1141 3·227
1142 2·058
1143 2·090
1156 2·224
1144 ·780
1140 3·804
1134 3·140
1133 1·409
1132 ·655
1135 ·77
1139 6·319
4100 1·171
5200 5·905
4483 2·024ha 5·00
4376 1·320ha 3·41
5286 ·567ha 1·40
6080 ·077ha ·19
6977 ·231ha ·57
7383 2·797ha 6·91
6800 2·150ha 5·31
6200 ·906ha 2·24
5657 6·034ha 15·03
3671 ·526ha 1·30
4569 ·817ha 2·02
3064 ·842ha 2·03
2958 2·405ha 5·94
2080 ·720ha 1·78
1385 ·801ha 1·98
2155 4·607ha 11·50
4550 2·227ha 5·50
3351 ·372ha ·92
4450 ·703ha 1·95
4150 ·623ha 1·54
B M 6·57m
830
829
828
825
826

GOV.UK

Long term flood risk information

HIGH MARSHSIDE
THE HILL
MILLOM
LA18 5HA

This location is in a flood risk area

All information, particularly the likelihood of surface water flooding, is a general indicator of an area's flood risk. As such it is not suitable for identifying whether an individual property will flood. This service uses computer models to assess an area's long term flood risk from rivers, the sea, surface water and some groundwater. It does not include flood risk from sources such as blocked drains and burst pipes.

Be prepared: things you should do

1 **Sign up for flood warnings**

This service is free. You can get warnings by phone, email or text message.

2 **Learn about flood planning**

Know how you'll respond to a flood if:

- your home is at risk, for example how to get sandbags
- you're responsible for a school, hospital, care home or other community group
- you run a local business

3 Protect your property

Get organised now and improve your property's flood resilience.

Being at risk of flooding can affect your insurance. Check if your buildings and contents policies cover flood risk.

4 Know what to do during a flood or get help after a flood

- Flooding can affect transport networks and disrupt your travel plans
- Flooding can impact your gas, electricity and water supplies
- Even if flooding hasn't affected you directly, check on friends, family and the wider community

5

This location is in a flood risk area.

The flood risk from rivers or the sea is low
View map of river and sea flood risk

The flood risk from surface water is very low
View map of surface water flood risk

View the flood risk information for another location

23 October 2018

Detailed flood risk information for this area

The flood risk from rivers or the sea is low

What this means

Low risk means that each year this area has a chance of flooding of between 0.1% and 1%. This takes into account the effect of any flood defences in the area. These defences reduce, but do not completely stop the chance of flooding as they can be overtopped, or fail.

How to use this information

You can use this information to see which areas are more likely to flood first, deepest, or most often.

This information is suitable for identifying which parts of countries or counties are at risk, or have the most risk. It's also suitable for identifying areas likely to flood first, deepest or most frequently. It's very unlikely to be reliable for a local area and extremely unlikely to be reliable for identifying individual properties at risk.

Planning a development

This information is not suitable for use in land-use planning. If you're planning a development, you must use the Risk of Flooding for Land-Use Planning (Rivers and Sea) for England or Development Advisory Map for Wales. This is information based on flooding without defences.

The flood risk from surface water is very low

What this means

Very low risk means that each year this area has a chance of flooding of less than 0.1%. Flooding from surface water is difficult to predict as rainfall location and volume are difficult to forecast. In addition, local features can greatly affect the chance and severity of flooding.

Surface water flood risk information is not suitable for identifying whether an individual property will flood. It gives an indication of the broad areas likely to be affected but is imprecise due to national assumptions made about rainfall, surface water run-off, topography and the stormwater drainage network.

Because of this, we report the highest risk within 20m of a specific location, such as an individual property. This means reports for neighbouring properties may show different levels of risk.

How to use this information

You can use this information to see the approximate areas that would flood, and which parts would be shallower or deeper.

This information is suitable for identifying which parts of counties or towns are at risk, or have the most risk. It's also suitable for identifying the approximate extent of flooding and the shallower and deeper areas of flooding. It's unlikely to be reliable for a local area and very unlikely to be reliable for identifying individual properties at risk.

Additional information

Lead Local Flood Authority

Cumbria

Created 23 October 2018

Basic view Detailed view

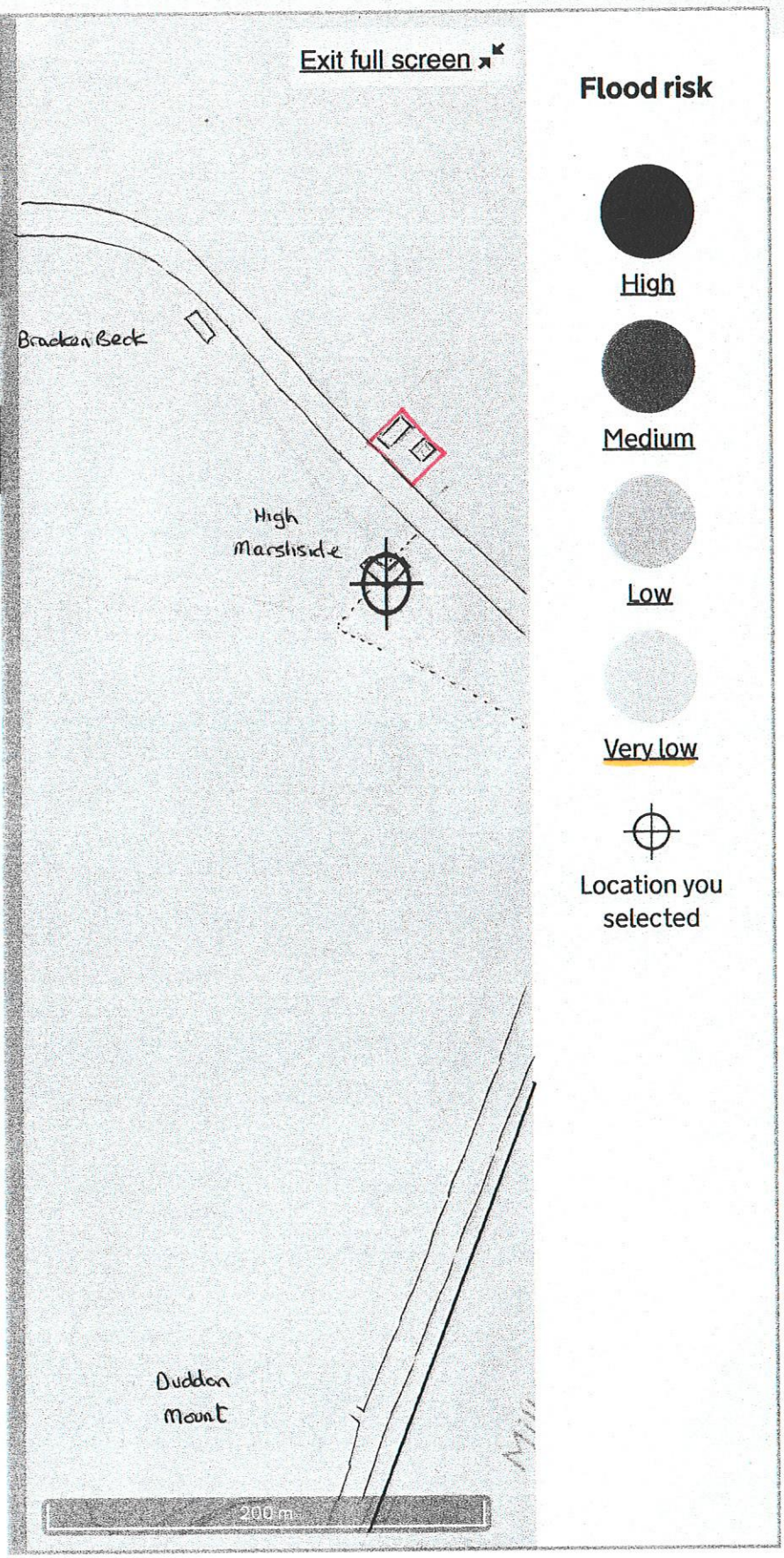
Location Enter a place or postcode

Extent of flooding

SURFACE WATER

Extent of flooding

Extent of flooding



Basic view Detailed view

Location Enter a place or postcode

Extent of flooding

Rivers

Extent of flooding

Extent of flooding