

Flood Risk Assessment

Planning application ----Youth Timber Pavilion 10m x 7m

Maybury Avenue Glyn Ceiriog

Ref Number -P2020/0021

Coordinates Lat 337739° 49,12878'N

Lon 320163° 49,16942' E

Prepared by Tegid Davies



(Photo for illustration purposes only)

The proposed pavilion is sited on the edge of Zone C2 and also on the edge Zone A.

Zone C2 refers to **“Without significant flood defence infrastructure”**.

Zone A refers to **“Considered to be at little or no risk of fluvial or coastal/tidal flooding”**.

This reading is taken from **Natural Resources Wales' Flood Risk Map Viewer**

Definitions of zones information used: -

The map is based on Natural Resource Wales' extreme flood outlines (Zone C) and the British Geological Survey drift data (Zone B). Zone B data originally published 2004, updated in 2017, Zone C data revised quarterly.

The **Flood Risk Assessment Wales Map** shows your risk of flooding from:

- rivers
- the sea
- surface water and small watercourses
- reservoirs

We have now identified the flood risk zone to be from: -

The Ceiriog River, surface water and a small water course from Nant Llafar.

There is no risk of flooding from the sea and no known reservoirs.

The River Ceiriog

The River Ceiriog is an 18 miles (29km) long river in North East Wales and it is a tributary of the River Dee. It rises at an altitude of around 1,800 ft (549 m) on the South East slopes of Moel Fferna Berwyn Mountains and flows through the Ceiriog Valley where it joins the River Dee.

Given the fast-flowing aspect of the River Ceiriog it has not flooded the village of Glyn Ceiriog in living memory. It did not flood during 2000/2001 winter and came nowhere near the proposed pavilion site, albeit it clipped the top of Hafodygynfawr Bridge.

In my opinion the river would need to rise by about 7.24m from the river bed to the base of the proposed pavilion site, this opinion is based on the following facts and measurements.

Measurements taken by Tegid S Davies who has an Advanced Diploma in Building and Construction, to include surveying, building technology, mathematics in construction and building science.

Measurements taken on 19 March 2021 at Hafodygynfawr Bridge

Weather condition - Fair with cloud

River /water depth - 400mm

Total bridge height to top of parapet wall - 5.2m

Parapet wall height to road deck - 1.1m

Road / deck height to river bed - 4.1m

Proposed pavilion site to road /deck height difference - 3.1m

Height difference river bed to Proposed pavilion site - 7.240m

Height difference top parapet wall of bridge to proposed pavilion site - 2.040m

Conclusion

For the River Ceiriog to be a flood risk to the proposed Pavilion, it would need to rise by 7.240m which is 3.1m higher than the bridge and would need to flood the playing fields and tramway site (approx. 2 acres) before it reaches base of the Pavilion.

In living memory is based on asking older generation the question.

Do you remember the River Ceiriog flooding the playing fields as they are now?

Mr Merfyn S Davies Born 1937 , his father Mr John Hywel Davies 1896- 1961

Nant Lafar

Is a stream that rises at Plas Lleucu at an altitude of 300m and is fed by two other streams, Nant Aberlas and Nant Dramwys. they both rise in the Ceiriog Forest, altitude of 470m, and descends down to Glyn Ceiriog to an altitude 152m where it joins the River Ceiriog.

In 2000/2001 Nant Lafar did overflow and flood the nearby Hotel as indicated on the Natural Resources Wales' Flood Risk Map as Zone C2

As I understand the main reason for the flood was poorly maintained culverts up stream, these have now been rectified and the stream has not spilt over down Maybury Avenue since.

My conclusion is that risk of flooding from the River Ceiriog, Nant Lafar and surface water is low.

What does 'Low' Mean?

Low means that each year, this area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%).

This takes into account the effect of any flood defences that may be in this area. Flood defences reduce, but do not completely stop the chance of flooding as they can be overtopped or fail.

But of course, the fast-flowing river takes water away quickly and reduces the water build up.

The position of the Pavilion will be raised by 300mm from ground level to accommodate surface water to run beneath given the position is on the edge of Zone A and Zone C2.

The rain water goods gutters will discharge into a soakaway.

There no provisions for power/electricity. The main use will be during day time hours and winter time, lights to be in portable charging units.

There will be no provisions for toilets as the public toilets are nearby.

There will be no provisions sleeping or overnight stays.

The Llansantffraid Glyn Ceiriog Community Council support the planning application and has drawn its conclusions from knowledgeable local people who have lived in the area.

Acknowledgements

Natural Resources Wales

National Flood Hazard and Risk Maps

The National Flood Hazard and Risk maps have been published to comply with the Flood Risk Regulations (2009) and the EU Directive (2007/60/EC), and used to inform the creation of Flood Risk Management plans across Wales. These maps have no official status for Planning or Insurance purposes, therefore the public and professionals are advised to use the information contained within the Flood Risk Assessment Wales Map and Development Advice Map for these purposes.

Wikipedia

Ordnance Survey 255