

Tor Y Graig Farm- Proposed Pump House supplying Tor Y Graig House – Flood Consequences

Introduction.

Solutions to Structures Ltd. has been instructed to provide a flood consequences analysis with regard to the planning application for the proposed pump house at the above property.

The property was visited on 29th December 2025 in dry weather conditions.

Scope of report

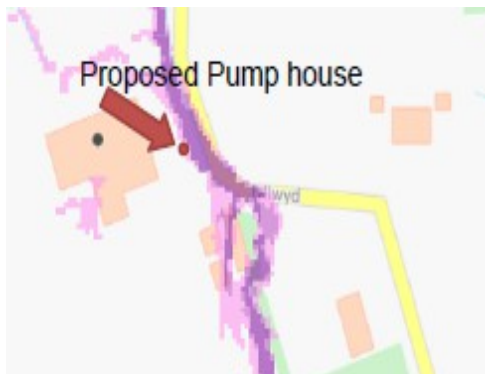
The document has been prepared in support of the planning application for the erection of a blockwork shed with timber cladding approximately 2m x 2.5m in size on plan within a 3m x 3m timber rail fenced enclosure, located within a paddock adjacent to the farm entrance.

The building is used to securely house a water supply pump, the building is to be unmanned with access only required for periodic or emergency maintenance of the plant.

As the building is not occupied no evacuation or safe refuge provisions are required for the pump house.

Flood risk

The Application site lies immediately adjacent to the Zone 3 for Surface Water and Small Watercourses



The proposed use of the site falls within the less vulnerable category as set out within TAN 15.

The proposal will not result in any increase in flood risk as the building has a small footprint relative to the area of level open ground adjacent to the stream channel on the higher Western bank of the watercourse.

The adjacent watercourse is a small stream that passes through a culvert at the entrance to the farm, the stream lies within a channel approx 1.2m deep and 3m wide, the paddock side of the channel is raised in relation to the highway side of the channel as such the water floods the road and farm junction rather than the paddock area, running off downstream to rejoin the watercourse.

It is considered that the development will not lead to any additional third party flooding.

Flood warnings.

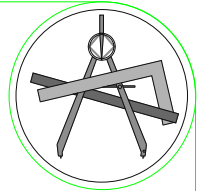
Whilst NRW operate a flood forecasting and warning service in areas at risk of flooding from the sea or rivers the site is outside that area.

As such the owner shall in periods of heavy rainfall monitor the weather conditions and local flooding.

Solutions to Structures Ltd

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Flood Management.

Tor Y Graig House stand at an elevation of 160m approx 40m above the farm and pump house, as such it is unaffected by the potential of flooding at the highway entrance other than in terms of access to the highway and the threat to the pumped water supply.

Due to the location high within the watercourses catchment the likelihood of prolonged flooding is very unlikely with levels subsiding rapidly after any flood event.

If flood levels are seen to approach the limits shown on the above plan and further rain is forecast the owner shall take measures to conserve drinking water at Tor Y Graig House, this will ensure that the header tank above the property is full and supplies can be maintained for a reasonable period in the event of pump failure.

The pump house is set with a floor level 150mm above the adjacent ground and the plant is located on a blockwork plinth 500mm above the floor level all electrical equipment used is designed for exposure to damp environments and is located above the plant levels.

With this in mind the water supply could be maintained with 500mm of flood water over the adjacent ground which lies outside the warning zones.

If water levels have risen above the building threshold maintenance staff should be contacted to check the plant and condition of the pumphouse generally when the levels have subsided.

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Signed

Director
Solutions to Structures Ltd.
29th December 2025.