



**OPW** Oifig na  
nOibreacha Poiblí  
Office of Public Works

# Flood Map Update

## MR060 Fermoy



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# 1 Map Review Programme

The Map Review Programme is the process that the OPW follows to update predictive flood mapping to continue to provide the best available flood risk information to as wide an audience as possible. The Flood Maps have been developed from detailed engineering analysis and modelling. There is always some uncertainty with regard to the accuracy of predictive flood models; however, the detailed models used have been developed using the best available modelling techniques, tools and data at the time of production.

Updates and revisions to the Flood Maps will be prepared as appropriate. Updates to the Flood Maps are considered when one of the below criteria are met:

- A change in the physical conditions since the Flood Map was produced. Examples of potential changes include new infrastructure, a new development, a culvert or bridge upgrade, land raising, channel realignment, etc.
- An error has been identified in the survey. Errors in the survey may include a channel missing or a channel misaligned, or an error in the surveyed levels used.
- Completion of an OPW-funded Flood Relief Scheme or Minor Works Scheme.
- Evidence presented by a recent flood event that calls into question the published Flood Map.
- The completion of a Strategic Flood Risk Assessment, supported by hydraulic modelling, which produces flood maps that are materially different to the OPW published Flood Map.

The Flood Map Review Programme covers Flood Maps produced by the National Catchment Flood Risk Assessment and Management Programme (CFRAM) and other projects that produce detailed productive flood mapping as published on [www.floodinfo.ie](http://www.floodinfo.ie). The CFRAM Programme was the principle vehicle to deliver on Ireland's commitments under the EU Floods Directive (2007/60/EC). The EU Floods Directive also requires that the Member States review and if necessary update the flood maps on a six-yearly cycle; the Map Review Programme is the process that satisfies this requirement.

The review of indicative national mapping datasets such as the outputs of the National Indicative Fluvial Mapping and the National Coastal Flood Hazard Mapping are not considered as part of the Map Review Programme.

## 2 Flood Map Review Request

### 2.1 Summary of Issue Identified

The OPW undertook a review of predicted flooding of motorways and other critical infrastructure. As part of this review, it was found that the M8 Bridge at Fermoy over the River Blackwater was identified as being at risk of flooding, see Figure 2-1. The bridge is significantly elevated over the river valley in this location as can be seen in Figure 2-2. Furthermore, the bridge piers are unlikely to have a substantive effect on the flood flows.

As an error has been identified in the flood mapping for this area a Map Review is justified in this case.

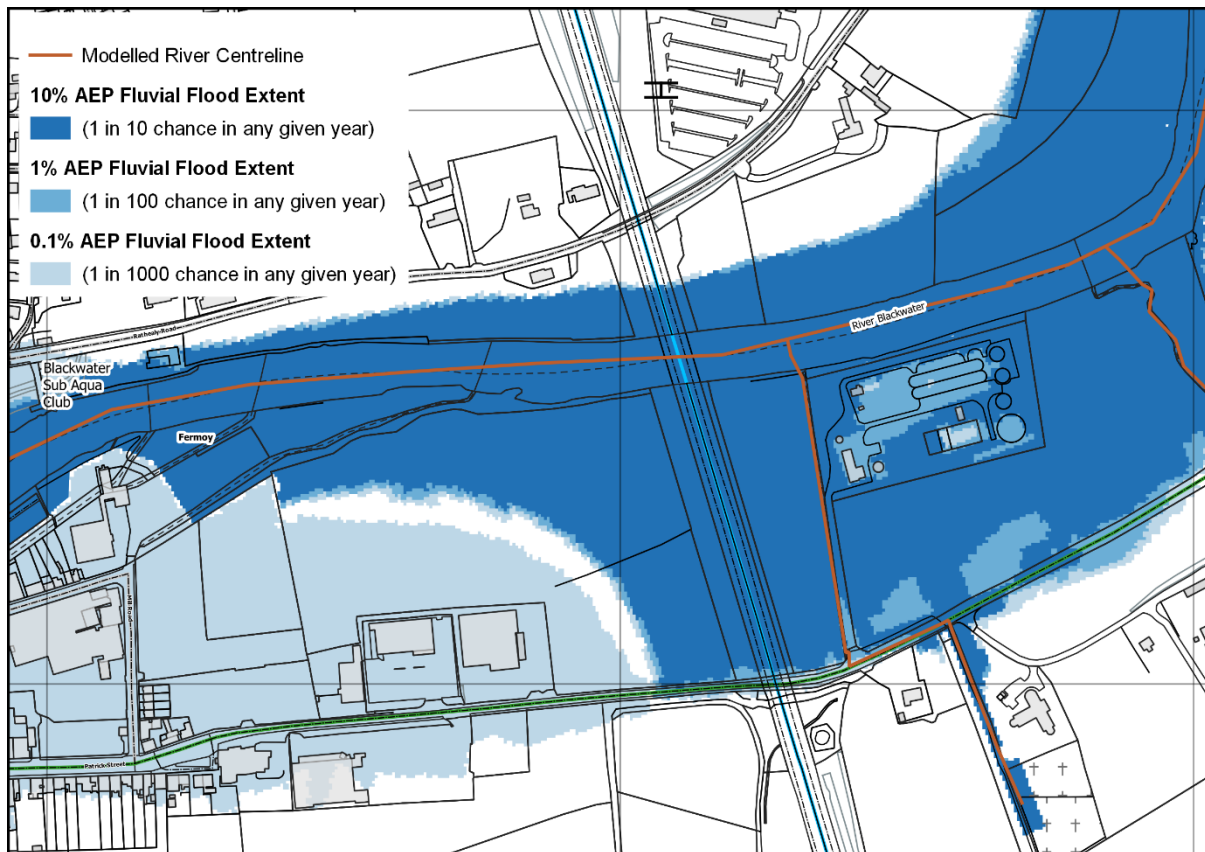


Figure 2-1; Overview of the Map Update Watercourse



Figure 2-2; Google Streetview of M8 Bridge

## 3 Flood Map Update

### 3.1 Available LiDAR

Transport Infrastructure Ireland (TII) has captured LiDAR of the motorway network. This data, illustrated in Figure 3-1, was compared with the 0.1% AEP High-End Future Scenario water levels. This is the most extreme event considered in the OPW's flood datasets. The motorway carriageway is typically 10m above the peak water level of the 0.1% AEP event and as such not at risk in any simulated event.

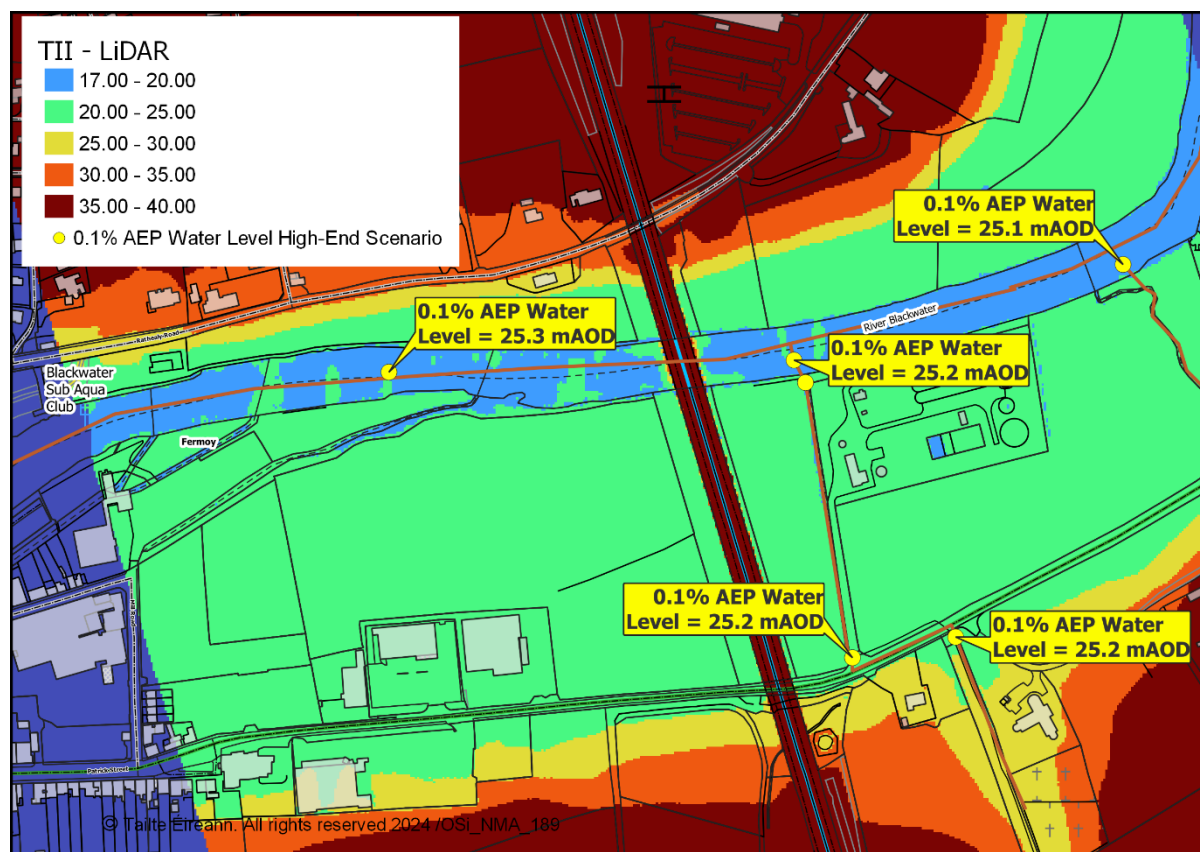


Figure 3-1; TII LiDAR & 0.1% AEP High-End Future Scenario

### 3.2 Conclusion

The maps have been updated to reflect the analysis that confirmed the bridge is not at risk in any simulated event. The bridge deck, as defined by the available Prime 2 mapping and TII LiDAR, has been clipped out of all flood mapping datasets. The updated mapping is shown in Figure 3-2.

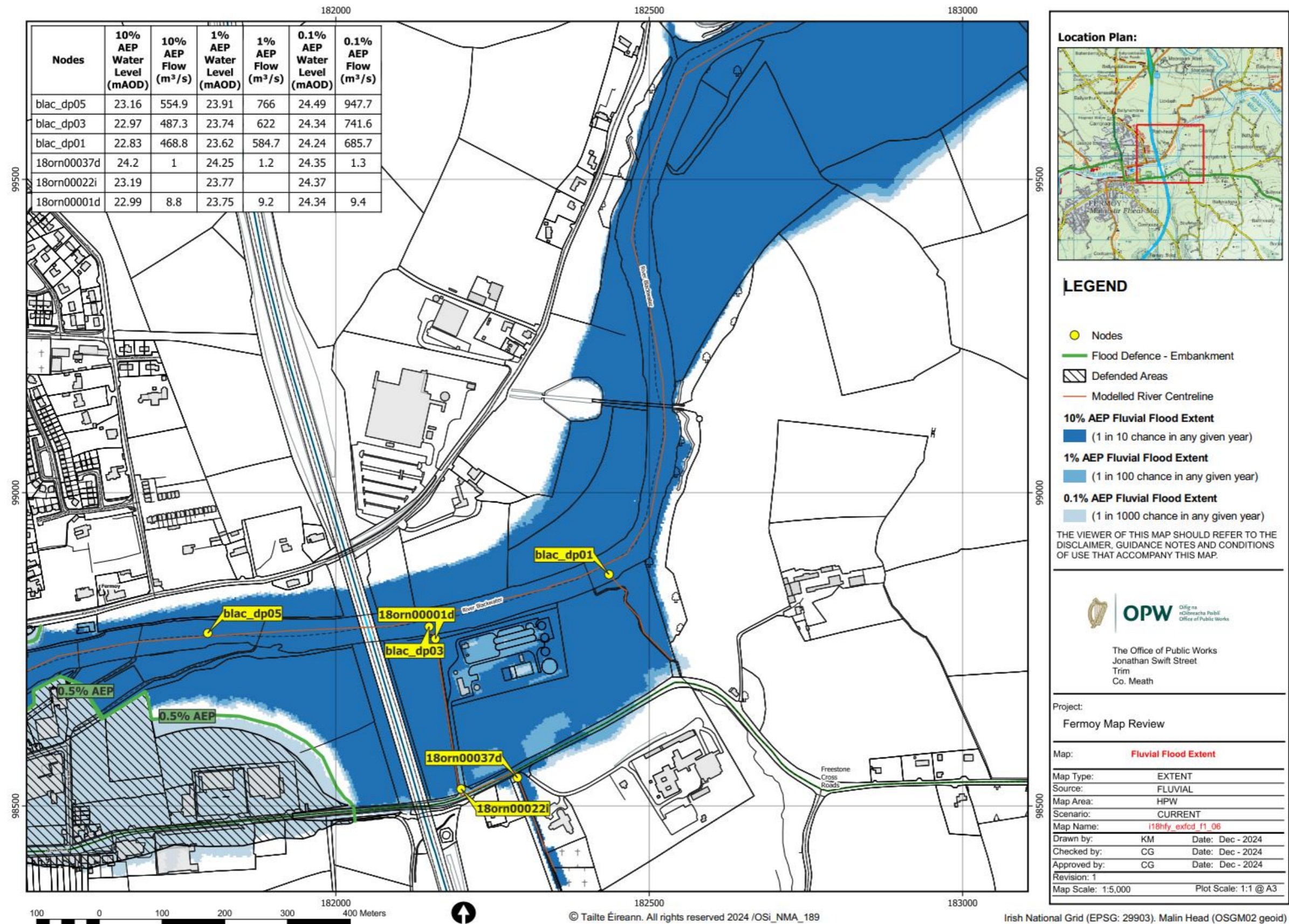


Figure 3-2; Updated Flood Map